

СПИСЪК НА ЦИТИРАНИЯ

в

научни издания, монографии и колективни томове, реферириани и индексирани в WoS и Scopus, които не са представени по други конкурси

на доц. Свilen Симеонов

Брой цитирани публикации: 30

Брой цитиращи източници: 901

Simeonov, S., Kurteva, V., Bontchev, R.. One-pot solvent-free synthesis of symmetrical azines under microwave irradiation. Bulgarian Chemical Communications, 2008, 40, 409-417.

Цитира се в:

1. Chourasiya, S. S.; Kathuria, D.; Wani, A. A.; Bharatam, P. V.; Azines: synthesis, structure, electronic structure and their applications, Organic and Biomolecular Chemistry, 2019, 17, 8486-8521.
2. Figueiredo, A. S.; Queiroz, J. E.; Dias, L. D.; Vidal, H. D. A.; Machado, I. V.; Verde, G. M. V.; Aquino, G. L. B.; Synthesis and anticholinesterase activity evaluation of asymmetric azines, Pharmaceutical Chemistry Journal, 2019, 53, 544-549.
3. Gomes, L. R.; Low, J. N.; Correira, N. R. de L.; Noguiera, T. C. M.; Pinheiro, A. C.; de Souza, M. V. N.; Wardell, J. L.; Wardell, S. M. S. V.; Crystal structures and Hirshfeld surface analysis of four 1, 4-bis(methoxyphenyl)-2, 3-diazabuta-1, 3-dienes: comparisons of the intermolecular interactions in related compounds, Zeitschrift für Kristallographie - Crystalline Materials, 2019, 234, 59-71.
4. Theresa, L. V.; Shaibuna, M.; Sreekumar, K.; Glucose:urea: NH4Cl low melting mixture for the synthesis of symmetric azines, Synthetic Communications, 2019, 49, 3148-3160.

Antonov, L., Deneva, V., Simeonov, S., Kurteva, V., Nedeltcheva, D., Wirz, J.. Exploiting tautomerism for switching and signaling. Angewandte Chemie International Edition, 2009, 48, 7875 –7878.

Цитира се в:

5. Qiu, H.; Arman, H., Hu, W.; Doyle, M. P.; Intramolecular cycloaddition/rearrangement cascade from gold(III)-catalysed reactions of propargyl aryldiazoesters with cinnamyl imines. Chemical Communications, 2018, 54, 12828-12831.
6. Abe, I.; Hara, M.; Seki, T.; Cho, S. J.; Shimizu, M.; Matsuura, K.; Cheong, H.-K.; Kim, J. Y.; Oh, J.; Jung, J.; Han, M.; A trigonal molecular assembly system with the dual light-driven functions of phase transition and fluorescence switching, Journal of

Materials Chemistry C, 2019, 7, 2276-2282.

7. Bedair, A. H.; El-Tabei, A. S.; Hegazy, M. A.; Mohamed, M. B. I.; Sadeq, M. A.; The utility of Michael condensation for the synthesis of macromolecule surfactants from azo-naphthols as possible antimicrobials, Al-Azhar Bulletin of Science, 2019, 30 (2A), 17-26.
8. Dasa, D.; RoyChoudhury, A.; Water-assisted ground state intra-molecular proton transfer in 2, 5-dihydroxy-substituted azobenzenes: experimental and computational studies, CrystEngComm, 2019, 21, 2373-2380.
9. Filo, J.; Tisovský, P.; Csicsai, K.; Donovalová, J.; Gálovský, M.; Gálovský, A.; Cigáň, M.; Tautomeric photoswitches: anion-assisted azo/azine-to-hydrazone photochromism, RSC Advances, 2019, 9, 15910-15916.
10. Kwiatkowski, A.; Kolehmainen, E.; Ośmiałowski, B.; Conformational and tautomeric control by supramolecular approach in ureido-N-iso-propyl, N'-4-(3-pyridin-2-one)pyrimidine, Molecules, 2019, 24, 2491, 12 pp.
11. Brovarets', O. O.; Hovorun, D. M.; A new era of the prototropic tautomerism of the quercetin molecule: A QM/QTAIM computational advances, Journal of Biomolecular Structure and Dynamics, 2020, 38, 16, 4774-4800.
12. Jhulki, S.; Evans, A. M.; Hao, X.-L.; Cooper, M. W.; Feriante, C. H.; Leisen, J.; Li, H.; Lam, D.; Hersam, M. C.; Barlow, S.; Brédas, J.-L.; Dichtel, W. R.; Marder, S. R.; Humidity sensing through reversible isomerization of a covalent organic framework, Journal of the American Chemical Society, 2020, 142, 783-791.
13. Pracht, P.; Bohle, F.; Grimme, S.; Automated exploration of the low-energy chemical space with fast quantum chemical methods, Physical Chemistry Chemical Physics, 2020, 22, 7169-7192.
14. Zhang, J.; Qi, S.; Zhang, C.; Fan, Z.; Ding, Q.; Mao, S.; Dong, Z.; Controlling keto-enol tautomerism of ureidopyrimidinone to generate a single-quadruple AADD-DDAA dimeric array, Organic Letters, 2020, 22, 7305-7309.
15. Guo, Q.; Ji, D.; Zhao, J.; Theoretical insights into photochemical behavior and ESIPT mechanism for 2, 6-dimethyl phenyl derivatives, Chemical Physics Letters, 2021, 767, 138377.
16. Slitikov, P. V.; Evdokimenkova, Y. B.; Aminomethylated hydroxinaphthalenes: synthesis and application, Herald of the Bauman Moscow State Technical University, Series Natural Sciences, 2021, 1, 94, 126-143.
17. Tang, Y.; Huang, W.; Chinnam, A. K.; Singh, J.; Staples, R. J.; Shreeve, J. M.; Energetic tricyclic polynitropyrazole and its salts: proton-locking effect of guanidium cations, Inorganic Chemistry, 2021, 60, 8339-8345.

Simeonov, S., Simeonov, A., Todorov, A., Kurteva, V.. Enantioresolution of a series of chiral benzyl alcohols by HPLC on a dinitrobenzoylphenylglycine stationary phase after achiral pre-column derivatization. American Journal of Analytical Chemistry, 2010, 1, 1-13

I lumupa ce 6:

18. Shea, M.; MS thesis, Preparation, structure, and reactivity of the first bicyclic benziodazole and its monocyclic analogue, 2019, University Of Minnesota, USA.
19. Mathan, N. D.; Ponraju, D.; Vijayakumar, C. T.; Kinetics of thermal degradation of intumescent flame-retardant spirophosphates, Bulletin of Materials Science 2021, 44, art. No. 15.
20. Shea, M. T.; Rohde, G. T.; Vlasenko, Y. A.; Postnikov, P. S.; Yusubov, M. S.; Zhdankin, V. V.; Saito, A.; Yoshimura, A.; Convenient synthesis of benziodazolone: new reagents for direct esterification of alcohols and amidation of amines, Molecules, 2021, 26, 7355.

Antonov, L., Kurteva, V., Simeonov, S., Deneva, V., Crochet, A., Fromm, K. M.. Tautocrowns: A concept for a sensing molecule with an active side-arm. Tetrahedron, 2010, 66, 4292-4297.

I lumupa ce 6:

21. Wagner-Wysiecka, E.; Łukasik, N.; Biernat, J. F.; Luboch, E.; Azo group(s) in selected macrocyclic compounds, Journal of Inclusion Phenomena and Macrocyclic Chemistry, 2018, 90, 189-257.
22. Angelova, S.; Complexation of IA and IIA group metal ions by N-phenylaza-15-crown-5 containing Schiff bases: A DFT study, Inorganica Chimica Acta, 2019, 487, 316-321.
23. Kudrevatykh, A. A.; Neznaeva, D. A.; Martyanov, T. P.; Klimenko, L. S.; Effect of substituents on cation-receptor properties of crown-containing 1-hydroxyanthraquinone imines, Russian Chemical Bulletin, 2019, 68, 623-627.
24. O. O. Brovarets, D. M. Hovorun, A new era of the prototropic tautomerism of the quercetin molecule: A QM/QTAIM computational advances, Journal of Biomolecular Structure and Dynamics, 2020, 38, 4774-4800.
25. Maki, H.; Kataoka, D.; Mizuhata, M.; ¹⁵N NMR insights into lactam-lactim tautomerism activity using cyclo- μ -imidopolyphosphates, Phosphorus Letter, 2021, 101, 12-25.

Rosatella, A.A., Simeonov, S.P., Frade, R.F.M., Afonso, C.A.M.. 5-Hydroxymethylfurfural (HMF) as a building block platform: Biological properties, synthesis and synthetic applications. Green Chemistry, 2011, 13, 754-793.

IIumupa ce 6:

26. Agarwal, B.; Kailasam, K.; Sangwan, R. S.; Elumalai, S. Traversing the history of solid catalysts for heterogeneous synthesis of 5-hydroxymethylfurfural from carbohydrate sugars: A review. *Renewable and Sustainable Energy Reviews*, 2018, 82, 2408-2425.
27. Ahmad, F.; Silva, E. L.; Varesche, M. B. A. Hydrothermal processing of biomass for anaerobic digestion – A review. *Renewable and Sustainable Energy Reviews*, 2018, 98, 108-124.
28. Altway, S.; Pujar, S. C.; de Haan, A. B. Liquid-liquid equilibria of ternary and quaternary systems involving 5-hydroxymethylfurfural, water, organic solvents, and salts at 313.15 K and atmospheric pressure. *Fluid Phase Equilibria*, 2018, 475, 100-110.
29. Beucher, R.; Andrei, R. D.; Cammarano, C.; Galarneau, A.; Fajula, F.; Hulea, V. Selective Production of Propylene and 1-Butene from Ethylene by Catalytic Cascade Reactions. *ACS Catalysis*, 2018, 8, 3636-3640.
30. Bhagia, S.; Ferreira, J. F. S.; Kothari, N.; Nunez, A.; Liu, X.; da Silva Dias, N.; Suarez, D. L.; Kumar, R.; Wyman, C. E. Sugar yield and composition of tubers from Jerusalem Artichoke (*Helianthus tuberosus*) irrigated with saline waters. *Biotechnology and Bioengineering*, 2018, 115, 1475-1484.
31. Bhaumik, P.; Chou, H. J.; Lee, L. C.; Chung, P. W. Chemical Transformation for 5-Hydroxymethylfurfural Production from Saccharides Using Molten Salt System. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 5712-5717.
32. Björnerbäck, F.; Bernin, D.; Hedin, N. Microporous Humins Synthesized in Concentrated Sulfuric Acid Using 5-Hydroxymethyl Furfural. *ACS Omega*, 2018, 3, 8537-8545.
33. Botti, L.; Navar, R.; Tolborg, S.; Martinez-Espin, J. S.; Padovan, D.; Taarning, E.; Hammond, C. Influence of Composition and Preparation Method on the Continuous Performance of Sn-Beta for Glucose-Fructose Isomerisation. *Topics in Catalysis*, 2018,
34. Brandolesi, A.; Ragno, D.; Di Carmine, G.; Bernardi, T.; Bortolini, O.; Giovannini, P. P.; Pandoli, O. G.; Altomare, A.; Massi, A. Aerobic oxidation of 5-hydroxymethylfurfural to 5-hydroxymethyl-2-furancarboxylic acid and its derivatives by heterogeneous NHC-catalysis. *Organic and Biomolecular Chemistry*, 2018, 16, 8955-8964.
35. Cattaneo, S.; Naslajan, H.; Somodi, F.; Evangelisti, C.; Villa, A.; Prati, L. Ruthenium on carbonaceous materials for the selective hydrogenation of HMF. *Molecules*, 2018, 23, 2007.
36. Cattaneo, S.; Stucchi, M.; Villa, A.; Prati, L. Gold Catalysts for the Selective

Oxidation of Biomass-Derived Products. *ChemCatChem*, 2019, 11, 309–323.

37. Chacón-Huete, F.; Messina, C.; Chen, F.; Cuccia, L.; Ottenwaelder, X.; Forgione, P. Solvent-free mechanochemical oxidation and reduction of biomass-derived 5-hydroxymethyl furfural. *Green Chemistry*, 2018, 20, 5261-5265.
38. Chang, C.; Dong, W. J.; Shen, Z.; Gu, M. Y.; Xia, M.; Zhang, Y. L. Production of lactic acid from microcrystalline cellulose over In-Sn-Beta molecular sieves. *Xiandai Huagong/Modern Chemical Industry*, 2018, 38, 66-69 and 71.
39. Chen, Q.; Ren, T.; Chai, Y.; Guo, Y.; Ingram, I. D. V.; North, M.; Xie, H.; Kent Zhao, Z. Preparation of Novel Aromatic-Aliphatic Poly(ketone ester)s through Condensation of Biomass-Derived Monomers. *ChemCatChem*, 2018, 10, 5377-5381.
40. Chen, S.; Wojcieszak, R.; Dumeignil, F.; Marceau, E.; Royer, S. How Catalysts and Experimental Conditions Determine the Selective Hydroconversion of Furfural and 5-Hydroxymethylfurfural. *Chemical Reviews*, 2018, 118, 11023-11117.
41. Córdova-Pérez, G. E.; Torres-Torres, G.; Ortíz-Chi, F.; Godavarthi, S.; Silahua-Pavón, A. A.; Izquierdo-Colorado, A.; Da Costa, P.; Hernández-Como, N.; Aleman, M.; Espinosa-González, C. G. Effect of Acid-Basic Sites Ratio on the Catalytic Activity to Obtain 5-HMF from Glucose Using Al₂O₃-TiO₂-W Catalysts. *ChemistrySelect*, 2018, 3, 12854-12864.
42. Cui, M.; Wu, Z.; Huang, R.; Qi, W.; Su, R.; He, Z. Integrating chromium-based ceramic and acid catalysis to convert glucose into 5-hydroxymethylfurfural. *Renewable Energy*, 2018, 125, 327-333.
43. de Carvalho, E. G. L.; Rodrigues, F. A.; Monteiro, R. S.; Ribas, R. M.; da Silva, M. J. Experimental design and economic analysis of 5-hydroxymethylfurfural synthesis from fructose in acetone-water system using niobium phosphate as catalyst. *Biomass Conversion and Biorefinery*, 2018, 8, 635-646.
44. Delbecq, F.; Len, C. Recent advances in the microwave-assisted production of hydroxymethylfurfural by hydrolysis of cellulose derivatives *Molecules*, 2018, 23, 1973.
45. Deng, F.; Aita, G. M. Detoxification of dilute ammonia pretreated energy cane bagasse enzymatic hydrolysate by soluble polyelectrolyte flocculants. *Industrial Crops and Products*, 2018, 112, 681-690.
46. Deng, F.; Aita, G. M. Fumaric Acid Production by *Rhizopus oryzae* ATCC® 20344™ from Lignocellulosic Syrup. *Bioenergy Research*, 2018, 11, 330-340.
47. Deng, F.; Cheong, D. Y.; Aita, G. M. Optimization of activated carbon detoxification of dilute ammonia pretreated energy cane bagasse enzymatic hydrolysate by response surface methodology. *Industrial Crops and Products*, 2018, 115, 166-173.
48. Ding, Z.; Luo, X.; Ma, Y.; Chen, H.; Qiu, S.; Sun, G.; Zhang, W.; Yu, C.; Wu, Z.;

- Zhang, J. Eco-friendly synthesis of 5-hydroxymethylfurfural (HMF) and its application to the Ferrier-rearrangement reaction. *Journal of Carbohydrate Chemistry*, 2018, 37, 81-93.
49. Dou, Y.; Zhang, M.; Zhou, S.; Oldani, C.; Fang, W.; Cao, Q. Etherification of 5-Hydroxymethylfurfural to Biofuel Additive Catalyzed by Aquivion® PFSA Modified Mesoporous Silica. *European Journal of Inorganic Chemistry*, 2018, 2018, 3706-3716.
50. Duguet, N.; Métay, E.; Lemaire, M.; Queneau, Y.; Moebs-Sanchez, S.; Ahmar, M.; Popowycz, F. Sugars and oils: Key ingredients for bio-based chemistry. *Actualité Chimique*, 2018, 39-45.
51. Elsayed, I.; Mashaly, M.; Eltawee, F.; Jackson, M. A.; Hassan, E. B. Dehydration of glucose to 5-hydroxymethylfurfural by a core-shell Fe₃O₄@SiO₂-SO₃H magnetic nanoparticle catalyst. *Fuel*, 2018, 221, 407-416.
52. Falco, G.; Guigo, N.; Vincent, L.; Sbirrazzuoli, N. FA polymerization disruption by protic polar solvents. *Polymers*, 2018, 10, 529.
53. Fan, G.; Wang, Y.; Hu, Z.; Yan, J.; Li, J.; Song, G. Synthesis of 5-hydroxymethyl furfural from cellulose via a two-step process in polar aprotic solvent. *Carbohydrate Polymers*, 2018, 200, 529-535.
54. Fan, W.; Queneau, Y.; Popowycz, F. HMF in multicomponent reactions: Utilization of 5-hydroxymethylfurfural (HMF) in the Biginelli reaction. *Green Chemistry*, 2018, 20, 485-492.
55. Fan, W.; Queneau, Y.; Popowycz, F. The synthesis of HMF-based α -amino phosphonates: Via one-pot Kabachnik-Fields reaction. *RSC Advances*, 2018, 8, 31496-31501.
56. Fang, W.; Hu, H.; Dong, P.; Ma, Z.; He, Y.; Wang, L.; Zhang, Y. Improvement of furanic diether selectivity by adjusting Brønsted and Lewis acidity. *Applied Catalysis A: General*, 2018, 565, 146-151.
57. Fang, W.; Hu, H.; Ma, Z.; Wang, L.; Zhang, Y. Two possible side reaction pathways during furanic etherification. *Catalysts*, 2018, 8, 383.
58. Feng, Y.; Zuo, M.; Zeng, X.; Sun, Y.; Tang, X.; Lin, L. Preparation of 5-Hydroxymethylfurfural from Glucose. *Progress in Chemistry*, 2018, 30, 314-324.
59. Galaverna, R.; Breitkreitz, M. C.; Pastre, J. C. Conversion of d -Fructose to 5-(Hydroxymethyl)furfural: Evaluating Batch and Continuous Flow Conditions by Design of Experiments and In-Line FTIR Monitoring. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 4220-4230.
60. Gandhi, S.; Baire, B. Calcium(II) Catalyzed Cycloisomerization of cis-6-Hydroxy/(Acyloxy)hex-2-en-4-ynals to 2-Acyl- and 2-(Acyloxyalkenyl)furans. *ChemistrySelect*, 2018, 3, 4490-4494.

- 61.** Gong, J.; Katz, M. J.; Kerton, F. M. Catalytic conversion of glucose to 5-hydroxymethylfurfural using zirconium-containing metal-organic frameworks using microwave heating. *RSC Advances*, 2018, 8, 31618-31627.
- 62.** Gromov, N. V.; Medvedeva, T. B.; Taran, O. P.; Bukhtiyarov, A. V.; Aymonier, C.; Prosvirin, I. P.; Parmon, V. N. Hydrothermal Solubilization–Hydrolysis–Dehydration of Cellulose to Glucose and 5-Hydroxymethylfurfural Over Solid Acid Carbon Catalysts. *Topics in Catalysis*, 2018, 61, 1912-1927.
- 63.** Han, B.; Zhao, P.; He, R.; Wu, T.; Wu, Y. Catalytic Conversion of Glucose to 5-Hydroxymethylfurfural Over B₂O₃ Supported Solid Acids Catalysts. *Waste and Biomass Valorization*, 2018, 9, 2181-2190.
- 64.** Hou, Y.; Chang, K.; Li, B.; Tang, H.; Wang, Z.; Zou, J.; Yuan, H.; Lu, Z.; Chang, Z. Highly [010]-oriented self-assembled LiCoPO₄/C nanoflakes as high-performance cathode for lithium ion batteries. *Nano Research*, 2018, 11, 2424-2435.
- 65.** Hu, H. C.; Zhang, Y.; Zeng, T.; Zhou, W.; Chen, L.; Huang, L.; Ni, Y. Determination of cellulose derived 5-hydroxymethyl-2-furfural content in lignocellulosic biomass hydrolysate by headspace gas chromatography. *Cellulose*, 2018, 25, 3843-3851.
- 66.** Hulea, V. Toward Platform Chemicals from Bio-Based Ethylene: Heterogeneous Catalysts and Processes. *ACS Catalysis*, 2018, 8, 3263-3279.
- 67.** Ji, T.; Tu, R.; Mu, L.; Lu, X.; Zhu, J. Structurally tuning microwave absorption of core/shell structured CNT/polyaniline catalysts for energy efficient saccharide-HMF conversion. *Applied Catalysis B: Environmental*, 2018, 220, 581-588.
- 68.** Jiang, Y.; Ding, D.; Zhao, S.; Zhu, H.; Kenttämaa, H. I.; Abu-Omar, M. M. Renewable thermoset polymers based on lignin and carbohydrate derived monomers. *Green Chemistry*, 2018, 20, 1131-1138.
- 69.** Josephson, T. R.; Dejaco, R. F.; Pahari, S.; Ren, L.; Guo, Q.; Tsapatsis, M.; Siepmann, J. I.; Vlachos, D. G.; Caratzoulas, S. Cooperative Catalysis by Surface Lewis Acid/Silanol for Selective Fructose Etherification on Sn-SPP Zeolite. *ACS Catalysis*, 2018, 8, 9056-9065.
- 70.** Kadowaki, M. A. S.; de Godoy, M. O.; Kumagai, P. S.; da Costa-Filho, A. J.; Mort, A.; Alexander Prade, R.; Polikarpov, I. Characterization of a new glyoxal oxidase from the thermophilic fungus *Myceliophthora thermophila* M77: Hydrogen peroxide production retained in 5-hydroxymethylfurfural oxidation. *Catalysts*, 2018, 8, 476.
- 71.** Kang, S.; Fu, J.; Zhang, G. From lignocellulosic biomass to levulinic acid: A review on acid-catalyzed hydrolysis. *Renewable and Sustainable Energy Reviews*, 2018, 94, 340-362.
- 72.** Keskküla, J.; Parviainen, A.; Lagerblom, K.; Repo, T. Transition metal triflate catalyzed conversion of alcohols, ethers and esters to olefins. *RSC Advances*, 2018, 8, 15111-15118.
- 73.** Kim, M.; Su, Y.; Fukuoka, A.; Hensen, E. J. M.; Nakajima, K. Aerobic Oxidation of 5-(Hydroxymethyl)furfural Cyclic Acetal Enables Selective Furan-2, 5-dicarboxylic Acid

Formation with CeO₂ -Supported Gold Catalyst. *Angewandte Chemie - International Edition*, 2018, 57, 8235-8239.

74. Kubiak, A.; Siwińska-Ciesielczyk, K.; Jesionowski, T. Titania-based hybrid materials with ZnO, ZrO₂ and MoS₂: *Materials*, 2018, 11, 2295
75. Kubota, S. R.; Choi, K. S. Electrochemical oxidation of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid (Fdca) in acidic media enabling spontaneous fdca separation. *ChemSusChem*, 2018, 11, 2138-2145.
76. Kucherov, F. A.; Romashov, L. V.; Galkin, K. I.; Ananikov, V. P. Chemical Transformations of Biomass-Derived C₆-Furanic Platform Chemicals for Sustainable Energy Research, Materials Science, and Synthetic Building Blocks. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 8064-8092.
77. Kumalaputri, A. J.; Randolph, C.; Otten, E.; Heeres, H. J.; Deuss, P. J. Lewis Acid Catalyzed Conversion of 5-Hydroxymethylfurfural to 1, 2, 4-Benzenetriol, an Overlooked Biobased Compound. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 3419-3425.
78. Kumar, M.; Olajire Oyedun, A.; Kumar, A. A review on the current status of various hydrothermal technologies on biomass feedstock. *Renewable and Sustainable Energy Reviews*, 2018, 81, 1742-1770.
79. Kuznetsov, B. N.; Sharypov, V. I.; Beregovtsova, N. G.; Baryshnikov, S. V.; Pestunov, A. V.; Vosmerikov, A. V.; Djakovitch, L. Thermal conversion of mechanically activated mixtures of aspen wood-zeolite catalysts in a supercritical ethanol. *Journal of Analytical and Applied Pyrolysis*, 2018, 132, 237-244.
80. Lăcătuș, M. A.; Bencze, L. C.; Toşa, M. I.; Paizs, C.; Irimie, F. D. Eco-Friendly Enzymatic Production of 2, 5-Bis(hydroxymethyl)furan Fatty Acid Diesters, Potential Biodiesel Additives. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 11353-11359.
81. Lanziano, C. A. S.; Moya, S. F.; Barrett, D. H.; Teixeira-Neto, E.; Guirardello, R.; de Souto da Silva, F.; Rinaldi, R.; Rodella, C. B. Hybrid Organic-Inorganic Anatase as a Bifunctional Catalyst for Enhanced Production of 5-Hydroxymethylfurfural from Glucose in Water. *ChemSusChem*, 2018, 11, 872-880.
82. Larsen, D. B.; Sønderbæk-Jørgensen, R.; Duus, J.; Daugaard, A. E. Investigation of curing rates of bio-based thiol-ene films from diallyl 2, 5-furandicarboxylate. *European Polymer Journal*, 2018, 102, 1-8.
83. Li, J.; Wang, Y.; Lu, B.; Wang, Y.; Deng, T.; Hou, X. Protomic acid catalysis of sulfonated carbon material: Tunable and selective conversion of fructose in low-boiling point solvent. *Applied Catalysis A: General*, 2018, 566, 140-145.
84. Li, X.; Peng, K.; Xia, Q.; Liu, X.; Wang, Y. Efficient conversion of cellulose into 5-hydroxymethylfurfural over niobia/carbon composites. *Chemical Engineering Journal*, 2018, 332, 528-536.

85. Li, X.; Zhang, Y.; Xia, Q.; Liu, X.; Peng, K.; Yang, S.; Wang, Y. Acid-Free Conversion of Cellulose to 5-(Hydroxymethyl)furfural Catalyzed by Hot Seawater. *Industrial and Engineering Chemistry Research*, 2018, 57, 3545-3553.
86. Liang, X.; Haynes, B. S.; Montoya, A. Acid-Catalyzed Ring Opening of Furan in Aqueous Solution. *Energy and Fuels*, 2018, 32, 4139-4148.
87. Lie, Y.; Farmer, T. J.; Macquarrie, D. J. Facile and rapid decarboxylation of glutamic acid to γ -aminobutyric acid via microwave-assisted reaction: Towards valorisation of waste gluten. *Journal of Cleaner Production*, 2018, 205, 1102-1113.
88. Lin, Z.; Chen, R.; Qu, Z.; Chen, J. G. Hydrodeoxygenation of biomass-derived oxygenates over metal carbides: From model surfaces to powder catalysts. *Green Chemistry*, 2018, 20, 2679-2696.
89. Ma, B.; Wang, Y.; Guo, X.; Tong, X.; Liu, C.; Wang, Y.; Guo, X. Photocatalytic synthesis of 2, 5-diformylfuran from 5-hydroxymethylfurfural or fructose over bimetallic Au-Ru nanoparticles supported on reduced graphene oxides. *Applied Catalysis A: General*, 2018, 552, 70-76.
90. Ma, H.; Liao, C.; Yang, P.; Qiao, Y.; Li, N.; Teng, J. Eco-Friendly Production of 5-Hydroxymethylfurfural from Sucrose Using Commercially Available Dihydric Phosphate as a Catalyst. *ChemistrySelect*, 2018, 3, 12113-12121.
91. Matharu, A. S.; Ahmed, S.; Almonthery, B.; Macquarrie, D. J.; Lee, Y. S.; Kim, Y. Starbon/High-Amylose Corn Starch-Supported N-Heterocyclic Carbene–Iron(III) Catalyst for Conversion of Fructose into 5-Hydroxymethylfurfural. *ChemSusChem*, 2018, 11, 716-725.
92. McGuire, B. A.; Martin-Drumel, M. A.; Lee, K. L. K.; Stanton, J. F.; Gottlieb, C. A.; McCarthy, M. C. Vibrational satellites of C2S, C3S, and C4S: Microwave spectral taxonomy as a stepping stone to the millimeter-wave band. *Physical Chemistry Chemical Physics*, 2018, 20, 13870-13889.
93. Megías-Sayago, C.; Chakarova, K.; Penkova, A.; Lolli, A.; Ivanova, S.; Albonetti, S.; Cavani, F.; Odriozola, J. A. Understanding the Role of the Acid Sites in 5-Hydroxymethylfurfural Oxidation to 2, 5-Furandicarboxylic Acid Reaction over Gold Catalysts: Surface Investigation on Ce x Zr $1-x$ O 2 Compounds. *ACS Catalysis*, 2018, 8, 11154-11164.
94. Mellmer, M. A.; Sanpitakseree, C.; Demir, B.; Bai, P.; Ma, K.; Neurock, M.; Dumesic, J. A. Solvent-enabled control of reactivity for liquid-phase reactions of biomass-derived compounds. *Nature Catalysis*, 2018, 1, 199-207.
95. Mensah, J. B.; Delidovich, I.; Hausoul, P. J. C.; Weisgerber, L.; Schrader, W.; Palkovits, R. Mechanistic Studies of the Cu(OH) $+$ -Catalyzed Isomerization of Glucose into Fructose in Water. *ChemSusChem*, 2018, 11, 2579-2586.
96. Mi, P.; Wang, H.; Zhao, R.; Song, J. Tandem O–H Insertion/[3, 3]-Sigmatropic

- Rearrangement of Rhodium Carbenoids with 2-Furfuryl Alcohols: A Strategy To Access Polysubstituted Furans. European Journal of Organic Chemistry, 2018, 2018, 759-762.
97. Mika, L. T.; Cséfalvay, E.; Németh, Á. Catalytic Conversion of Carbohydrates to Initial Platform Chemicals: Chemistry and Sustainability. Chemical Reviews, 2018, 118, 505-613.
98. Mishra, D. K.; Cho, J. K.; Kim, Y. J. Facile production of 2, 5-diformylfuran from base-free oxidation of 5-hydroxymethyl furfural over manganese–cobalt spinels supported ruthenium nanoparticles. Journal of Industrial and Engineering Chemistry, 2018, 60, 513-519.
99. Nakason, K.; Panyapinyopol, B.; Kanokkantapong, V.; Viriya-empikul, N.; Kraithong, W.; Pavasant, P. Hydrothermal carbonization of unwanted biomass materials: Effect of process temperature and retention time on hydrochar and liquid fraction. Journal of the Energy Institute, 2018, 91, 786-796.
100. Nam, D. H.; Taitt, B. J.; Choi, K. S. Copper-Based Catalytic Anodes to Produce 2, 5-Furandicarboxylic Acid, a Biomass-Derived Alternative to Terephthalic Acid. ACS Catalysis, 2018, 8, 1197-1206.
101. Nascimento, S. A.; Rezende, C. A. Combined approaches to obtain cellulose nanocrystals, nanofibrils and fermentable sugars from elephant grass. Carbohydrate Polymers, 2018, 180, 38-45.
102. Özkaynak Kanmaz, E. 5-Hydroxymethylfurfural (HMF) formation during subcritical water extraction. Food Science and Biotechnology, 2018, 27, 981-986.
103. Pal, P.; Saravanamurugan, S. Recent Advances in the Development of 5-Hydroxymethylfurfural Oxidation with Base (Nonprecious)-Metal-Containing Catalysts. ChemSusChem, 2019, 12, 145 –163.
104. Palkovits, R.; Delidovich, I. Efficient utilization of renewable feedstocks: The role of catalysis and process design. Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 376,
105. Pande, A.; Niphadkar, P.; Pandare, K.; Bokade, V. Acid Modified H-USY Zeolite for Efficient Catalytic Transformation of Fructose to 5-Hydroxymethyl Furfural (Biofuel Precursor) in Methyl Isobutyl Ketone-Water Biphasic System. Energy and Fuels, 2018, 32, 3783-3791.
106. Pang, J.; Zheng, M.; Li, X.; Jiang, Y.; Zhao, Y.; Wang, A.; Wang, J.; Wang, X.; Zhang, T. Selective conversion of concentrated glucose to 1, 2-propylene glycol and ethylene glycol by using RuSn/AC catalysts. Applied Catalysis B: Environmental, 2018, 239, 300-308.
107. Patil, S.; Krishnan, R. A.; Bhangde, S.; Dandekar, P.; Jain, R. Comparison between solid and liquid acids for production of low molecular weight chitosan using systematic DOE-based approach. Cellulose, 2018, 25, 5643-5658.
108. Pawar, H.; Lali, A. DICAT-2: Solid Acid Catalyst with a Protagonist Backbone for

Microwave Assisted Synthesis of 5-Hydroxymethylfurfural in Isopropyl Alcohol. Industrial and Engineering Chemistry Research, 2018, 57, 14428-14439.

109. Pérez Nebreda, A.; Russo, V.; Di Serio, M.; Eränen, K.; Murzin, D. Y.; Salmi, T.; Grénman, H. High purity fructose from inulin with heterogeneous catalysis – from batch to continuous operation. Journal of Chemical Technology and Biotechnology, 2018,
110. Petri, A.; Masia, G.; Piccolo, O. Biocatalytic conversion of 5-hydroxymethylfurfural: Synthesis of 2, 5-bis(hydroxymethyl)furan and 5-(hydroxymethyl)furylamine. Catalysis Communications, 2018, 114, 15-18.
111. Pfennig, T.; Chemburkar, A.; Cakolli, S.; Neurock, M.; Shanks, B. H. Improving Selectivity of Toluic Acid from Biomass-Derived Coumaric Acid. ACS Sustainable Chemistry and Engineering, 2018, 6, 12855-12864.
112. Pienkoß, F.; Ochoa-Hernández, C.; Theyssen, N.; Leitner, W. Kaolin: A Natural Low-Cost Material as Catalyst for Isomerization of Glucose to Fructose. ACS Sustainable Chemistry and Engineering, 2018, 6, 8782-8789.
113. Pino, N.; Bui, T.; Hincapié, G.; López, D.; Resasco, D. E. Hydrophobic zeolites for the upgrading of biomass-derived short oxygenated compounds in water/oil emulsions. Applied Catalysis A: General, 2018, 559, 94-101.
114. Portilla-Zuñiga, O. M.; Sathicq, Á. G.; Martínez, J. J.; Fernandes, S. A.; Rezende, T. R. M.; Romanelli, G. P. Synthesis of Biginelli adducts using a Preyssler heteropolyacid in silica matrix from biomass building block. Sustainable Chemistry and Pharmacy, 2018, 10, 50-55.
115. Posmanik, R.; Martinez, C. M.; Cantero-Tubilla, B.; Cantero, D. A.; Sills, D. L.; Cocero, M. J.; Tester, J. W. Acid and Alkali Catalyzed Hydrothermal Liquefaction of Dairy Manure Digestate and Food Waste. ACS Sustainable Chemistry and Engineering, 2018, 6, 2724-2732.
116. Rao, K. T. V.; Rogers, J. L.; Souzanchi, S.; Dessbesell, L.; Ray, M. B.; Xu, C. C. Inexpensive but Highly Efficient Co–Mn Mixed-Oxide Catalysts for Selective Oxidation of 5-Hydroxymethylfurfural to 2, 5-Furandicarboxylic Acid. ChemSusChem, 2018, 11, 3323-3334.
117. Rathod, P. V.; Jadhav, V. H. Efficient Method for Synthesis of 2, 5-Furandicarboxylic Acid from 5-Hydroxymethylfurfural and Fructose Using Pd/CC Catalyst under Aqueous Conditions. ACS Sustainable Chemistry and Engineering, 2018, 6, 5766-5771.
118. Requies, J. M.; Frias, M.; Cuevva, M.; Iriondo, A.; Agirre, I.; Viar, N. Hydrogenolysis of 5-Hydroxymethylfurfural To Produce 2, 5-Dimethylfuran over ZrO₂ Supported Cu and RuCu Catalysts. Industrial and Engineering Chemistry Research, 2018, 57, 11535-11546.
119. Sajid, M.; Zhao, X.; Liu, D. Production of 2, 5-furandicarboxylic acid (FDCA) from 5-hydroxymethylfurfural (HMF): Recent progress focusing on the chemical-catalytic routes. Green Chemistry, 2018, 20, 5427-5453.

- 120.** Schade, O. R.; Kalz, K. F.; Neukum, D.; Kleist, W.; Grunwaldt, J. D. Supported gold- and silver-based catalysts for the selective aerobic oxidation of 5-(hydroxymethyl)furfural to 2, 5-furandicarboxylic acid and 5-hydroxymethyl-2-furancarboxylic acid. *Green Chemistry*, 2018, 20, 3530-3541.
- 121.** Sert, M.; Arslanoğlu, A.; Ballice, L. Conversion of sunflower stalk based cellulose to the valuable products using choline chloride based deep eutectic solvents. *Renewable Energy*, 2018, 118, 993-1000.
- 122.** Shapla, U. M.; Solayman, M.; Alam, N.; Khalil, M. I.; Gan, S. H. 5-Hydroxymethylfurfural (HMF) levels in honey and other food products: effects on bees and human health. *Chemistry Central Journal*, 2018, 12, 35.
- 123.** Shen, G.; Zhang, S.; Lei, Y.; Chen, Z.; Yin, G. Synthesis of 2, 5-furandicarboxylic acid by catalytic carbonylation of renewable furfural derived 5-bromofuroic acid. *Molecular Catalysis*, 2018, 455, 204-209.
- 124.** Shen, Y.; Sun, J.; Wang, B.; Xu, F.; Sun, R. In *Biomass as Renewable Raw Material to Obtain Bioproducts of High-Tech Value*, 2018. ISBN 978-0-444-63774-1
- 125.** Shi, K.; Pedersen, C. M.; Guo, Z.; Li, Y.; Zheng, H.; Qiao, Y.; Hu, T.; Wang, Y. NMR studies of the tautomer distributions of D-fructose in lower alcohols/DMSO-d6. *Journal of Molecular Liquids*, 2018, 271, 926-932.
- 126.** Shinde, S. H.; Rode, C. V. An Integrated Production of Diesel Fuel Precursors from Carbohydrates and 2-Methylfuran over Sn-Mont Catalyst. *ChemistrySelect*, 2018, 3, 4039-4046.
- 127.** Shinde, S.; Deval, K.; Chikate, R.; Rode, C. Cascade Synthesis of 5-(Acetoxymethyl)furfural from Carbohydrates over Sn-Mont Catalyst. *ChemistrySelect*, 2018, 3, 8770-8778.
- 128.** Sweygers, N.; Alewaters, N.; Dewil, R.; Appels, L. Microwave effects in the dilute acid hydrolysis of cellulose to 5-hydroxymethylfurfural. *Scientific Reports*, 2018, 8, 7719.
- 129.** Tirsoaga, A.; El Fergani, M.; Parvulescu, V. I.; Coman, S. M. Upgrade of 5-Hydroxymethylfurfural to Dicarboxylic Acids onto Multifunctional-Based Fe₃O₄@SiO₂ Magnetic Catalysts. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 14292-14301.
- 130.** Tranter, R. S.; Lynch, P. T.; Randazzo, J. B.; Lockhart, J. P. A.; Chen, X.; Goldsmith, C. F. High temperature pyrolysis of 2-methyl furan. *Physical Chemistry Chemical Physics*, 2018, 20, 10826-10837.
- 131.** Van Schijndel, J.; Canalle, L. A.; Molendijk, D.; Meuldijk, J. Exploration of the Role of Double Schiff Bases as Catalytic Intermediates in the Knoevenagel Reaction of Furanic Aldehydes: Mechanistic Considerations. *Synlett*, 2018, 29, 1983-1988.
- 132.** Ventura, M.; Williamson, D.; Lobefaro, F.; Jones, M. D.; Mattia, D.; Nocito, F.; Aresta, M.; Dibenedetto, A. Sustainable Synthesis of Oxalic and Succinic Acid through Aerobic

Oxidation of C6 Polyols Under Mild Conditions. *ChemSusChem*, 2018, 11, 1073-1081.

133. Wang, C.; Hou, Y.; Lin, Y.; Xie, Y.; Wei, D.; Zhou, N.; He, H. Rapid determination and conversion study of 5-hydroxymethylfurfural and its derivatives in glucose injection. *New Journal of Chemistry*, 2018, 42, 17725-17731.
134. Wang, J. G.; Liu, X. Q.; Zhu, J. From Furan to High Quality Bio-based Poly(ethylene furandicarboxylate). *Chinese Journal of Polymer Science (English Edition)*, 2018, 36, 720-727.
135. Wang, Y.; Ding, G.; Yang, X.; Zheng, H.; Zhu, Y.; Li, Y. Selectively convert fructose to furfural or hydroxymethylfurfural on Beta zeolite: The manipulation of solvent effects. *Applied Catalysis B: Environmental*, 2018, 235, 150-157.
136. Weingart, E.; Teevs, L.; Krieg, R.; Prüße, U. Hexafluoroisopropanol as a Low-Boiling Extraction Solvent for 5-Hydroxymethylfurfural Production. *Energy Technology*, 2018, 6, 432-440.
137. Widsten, P.; Murton, K.; West, M. Production of 5-hydroxymethylfurfural and furfural from a mixed saccharide feedstock in biphasic solvent systems. *Industrial Crops and Products*, 2018, 119, 237-242.
138. Wiesfeld, J. J.; Sommerdijk, N. A. J. M.; Hensen, E. J. M. Early Transition Metal Doped Tungstite as an Effective Catalyst for Glucose Upgrading to 5-Hydroxymethylfurfural. *Catalysis Letters*, 2018, 148, 3093-3101.
139. Wu, Q.; Chen, J.; Guo, X.; Xu, Y. Copper(I)-Catalyzed Four-Component Coupling Using Renewable Building Blocks of CO₂ and Biomass-Based Aldehydes. *European Journal of Organic Chemistry*, 2018, 2018, 3105-3113.
140. Xie, Y.; Ge, S.; Jiang, S.; Liu, Z.; Chen, L.; Wang, L.; Chen, J.; Qin, L.; Peng, W. Study on biomolecules in extractives of *Camellia oleifera* fruit shell by GC-MS. *Saudi Journal of Biological Sciences*, 2018, 25, 234-236.
141. Xu, S.; Pan, D.; Li, W.; Shen, P.; Wu, Y.; Song, X.; Zhu, Y.; Xu, N.; Gao, L.; Xiao, G. Direct conversion of biomass-derived carbohydrates to 5-hydroxymethylfurfural using an efficient and inexpensive manganese phosphate catalyst. *Fuel Processing Technology*, 2018, 181, 199-206.
142. Xu, Y.; Jia, X.; Ma, J.; Gao, J.; Xia, F.; Li, X.; Xu, J. Efficient Synthesis of 2, 5-Dicyanofuran from Biomass-Derived 2, 5-Diformylfuran via an Oximation-Dehydration Strategy. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 2888-2892.
143. Xu, Z. H.; Cheng, A. D.; Xing, X. P.; Zong, M. H.; Bai, Y. P.; Li, N. Improved synthesis of 2, 5-bis(hydroxymethyl)furan from 5-hydroxymethylfurfural using acclimatized whole cells entrapped in calcium alginate. *Bioresource Technology*, 2018, 262, 177-183.
144. Yan, D.; Wang, G.; Gao, K.; Lu, X.; Xin, J.; Zhang, S. One-Pot Synthesis of 2, 5-Furandicarboxylic Acid from Fructose in Ionic Liquids. *Industrial and Engineering*

Chemistry Research, 2018, 57, 1851-1858.

145. Yan, S.; Li, Y.; Li, P.; Jia, T.; Wang, S.; Wang, X. Fabrication of mesoporous POMs/SiO₂nanofibers through electrospinning for oxidative conversion of biomass by H₂O₂ and oxygen. RSC Advances, 2018, 8, 3499-3511.
146. Yang, H.; Guo, J.; Gao, Z.; Gou, J.; Yu, B. A Combination of Furfuryl Cation Induced Three-Component Reactions and Photocatalyst-Free Photoisomerization to Construct Complex Triazoles. Organic Letters, 2018, 20, 4893-4897.
147. Yu, X.; Peng, L.; Gao, X.; He, L.; Chen, K. One-step fabrication of carbonaceous solid acid derived from lignosulfonate for the synthesis of biobased furan derivatives. RSC Advances, 2018, 8, 15762-15772.
148. Zhang, D.; Dumont, M. J. Reprocessable 5-hydroxymethylfurfural derivative-based thermoset elastomers synthesized through the thiol-Michael and Diels–Alder reactions. Journal of Materials Science, 2018, 53, 11116-11129.
149. Zhang, D.; Dumont, M. J. Synthesis, characterization and potential applications of 5-hydroxymethylfurfural derivative based poly(β-thioether esters) synthesized via thiol-Michael addition polymerization. Polymer Chemistry, 2018, 9, 743-756.
150. Zhang, L.; Luo, X.; Li, Y. A new approach for the aerobic oxidation of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid without using transition metal catalysts. Journal of Energy Chemistry, 2018, 27, 243-249.
151. Zhao, J.; Jayakumar, A.; Hu, Z. T.; Yan, Y.; Yang, Y.; Lee, J. M. MoO₃-Containing Protonated Nitrogen Doped Carbon as a Bifunctional Catalyst for One-Step Synthesis of 2, 5-Diformylfuran from Fructose. ACS Sustainable Chemistry and Engineering, 2018, 6, 284-291.
152. Zhao, J.; Jayakumar, A.; Lee, J. M. Bifunctional Sulfonated MoO₃-ZrO₂ Binary Oxide Catalysts for the One-Step Synthesis of 2, 5-Diformylfuran from Fructose. ACS Sustainable Chemistry and Engineering, 2018, 6, 2976-2982.
153. Zhou, C.; Shen, C.; Ji, K.; Yin, J.; Du, L. Efficient Production of 5-Hydroxymethylfurfural Enhanced by Liquid-Liquid Extraction in a Membrane Dispersion Microreactor. ACS Sustainable Chemistry and Engineering, 2018, 6, 3992-3999.
154. Zhu, B.; Duguet, N.; Chen, G. R.; Lemaire, M. Direct Aldolization of Unprotected Fructose to Bio-Based Surfactants. ACS Sustainable Chemistry and Engineering, 2018, 6, 11695-11703.
155. Zou, X.; Zhu, C.; Wang, Q.; Yang, G. Catalytic dehydration of hexose sugars to 5-hydroxymethylfural. Biofuels, Bioproducts and Biorefining, 2019, 13, 153–173.
156. Adu, J. K.; Amengor, C. D. K.; Orman, E.; Ibrahim, N. M.; Ifunanya, M. O.; Arthur, D. F.; Development and validation of UV-visible spectrophotometric method for the determination of 5-hydroxymethyl furfural content in Canned Malt Drinks and Fruit Juices

in Ghana, Journal of Food Quality, 2019, 2019,

157. Aktağ, I. G.; Hamzalioğlu, A.; Gökmən, V.; Lactose hydrolysis and protein fortification pose an increased risk for the formation of Maillard reaction products in UHT treated milk products, Journal of Food Composition and Analysis, 2019, 84,
158. Aldosari, O. F.; Selective conversion of furfuryl alcohol to 2-methylfuran over nanosilica supported Au:Pd bimetallic catalysts at room temperature, Journal of Saudi Chemical Society, 2019, 23, 7, 938-946.
159. Aldosari, O.; Alshammari, H.; Alhumaimess, M.; Wawata, I.; Catalytic hydrogenation of furfural and furfuryl alcohol to fuel additives and value-added chemicals, Turkish Journal of Chemistry, 2019, 43, 1, 24-38.
160. Aldosari, O.; Alshammari, H.; Alhumaimess, M.; Wawata, I.; Catalytic hydrogenation of furfural and furfuryl alcohol to fuel additives and value-added chemicals, Turkish Journal of Chemistry, 2019, 43, 2, 394-403.
161. Aljammal, N.; Jabbour, C.; Thybaut, J. W.; Demeestere, K.; Verpoort, F.; Heynderickx, P. M.; Metal-organic frameworks as catalysts for sugar conversion into platform chemicals: State-of-the-art and prospects, Coordination Chemistry Reviews, 2019, 401, 213064.
162. Altway, S.; Pujar, S. C.; de Haan, A. B.; Effect of 1-ethyl-3-methylimidazolium tetrafluoroborate on the phase equilibria for systems containing 5-hydroxymethylfurfural, water, organic solvent in the absence and presence of sodium chloride, Journal of Chemical Thermodynamics, 2019, 132, 257-267.
163. Amoah, J.; Hasunuma, T.; Ogino, C.; Kondo, A.; 5-Hydroxymethylfurfural production from salt-induced photoautotrophically cultivated Chlorella sorokiniana, Biochemical Engineering Journal, 2019, 142, 117-123.
164. An, J.; Sun, G.; Xia, H.; Aerobic Oxidation of 5-Hydroxymethylfurfural to High-Yield 5-Hydroxymethyl-2-furancarboxylic Acid by Poly(vinylpyrrolidone)-Capped Ag Nanoparticle Catalysts, ACS Sustainable Chemistry and Engineering, 2019, 7, 7, 6696-6706.
165. Aylak, A. R.; Akmaz, S.; Koc, S. N.; Glucose conversion to 5-hydroxymethylfurfural with chromium exchanged bentonite and montmorillonite catalysts in different solvents, Chemical Engineering Communications, 2020, 207, 8, 1103-1113.
166. Ban, H.; Chen, S.; Zhang, Y.; Cheng, Y.; Wang, L.; Li, X.; Kinetics and Mechanism of Catalytic Oxidation of 5-Methylfurfural to 2, 5-Furandicarboxylic Acid with Co/Mn/Br Catalyst, Industrial and Engineering Chemistry Research, 2019, 58, 41, 19009-19021.
167. Begum, Y. A.; Deka, S. C.; Effect of processing on structural, thermal, and physicochemical properties of dietary fiber of culinary banana bracts, Journal of Food Processing and Preservation, 2019, 43, 12,
168. Bihanic, C.; Stanovych, A.; Pelissier, F.; Grison, C.; Putting Waste to Work: The

Demonstrative Example of Pyrite Quarry Effluents Turned into Green Oxidative Catalysts, ACS Sustainable Chemistry and Engineering, 2019, 7, 6, 6223-6233.

169. Bobbink, F. D.; Huang, Z.; Menoud, F.; Dyson, P. J.; Leather-Promoted Transformation of Glucose into 5-Hydroxymethylfurfural and Levoglucosenone, ChemSusChem, 2019, 12, 7, 1437-1442.
170. Bonincontro, D.; Lolli, A.; Villa, A.; Prati, L.; Dimitratos, N.; Veith, G. M.; Chinchilla, L. E.; Botton, G. A.; Cavani, F.; Albonetti, S.; AuPd-nNiO as an effective catalyst for the base-free oxidation of HMF under mild reaction conditions, Green Chemistry, 2019, 21, 15, 4090-4099.
171. Botti, L.; Navar, R.; Tolborg, S.; Martinez-Espin, J. S.; Padovan, D.; Taarning, E.; Hammond, C.; Influence of Composition and Preparation Method on the Continuous Performance of Sn-Beta for Glucose-Fructose Isomerisation, Topics in Catalysis, 2019, 62, 17-20, 1178-1191.
172. Brandão, P.; Pineiro, M.; Pinho e Melo, T. M. V. D.; Flow Chemistry: Towards A More Sustainable Heterocyclic Synthesis, European Journal of Organic Chemistry, 2019, 2019, 43, 7188-7217.
173. Bricout, H.; Vanbésien, T.; Wei, M. M.; Billamboz, M.; Len, C.; Monflier, E.; Hapiot, F.; cRh-Catalyzed Hydroformylation of Divinylglycol: An Effective Way to Access 2, 7-Dioxadecalin-3, 8-diol, European Journal of Organic Chemistry, 2019, 2019, 27, 4372-4376.
174. Cang, R.; Shen, L. Q.; Yang, G.; Zhang, Z. D.; Huang, H.; Zhang, Z. G.; Highly selective oxidation of 5-hydroxymethylfurfural to 5-hydroxymethyl-2-furancarboxylic acid by a robust whole-cell biocatalyst, Catalysts, 2019, 9, 6, 526.
175. Cao, Z.; Fan, Z.; Chen, Y.; Li, M.; Shen, T.; Zhu, C.; Ying, H.; Efficient preparation of 5-hydroxymethylfurfural from cellulose in a biphasic system over hafnium phosphates, Applied Catalysis B: Environmental, 2019, 244, 170-177.
176. Cardiel, A. C.; Taitt, B. J.; Choi, K. S.; Stabilities, Regeneration Pathways, and Electrocatalytic Properties of Nitroxyl Radicals for the Electrochemical Oxidation of 5-Hydroxymethylfurfural, ACS Sustainable Chemistry and Engineering, 2019, 7, 13, 11138-11149.
177. Carneiro, J.; Nikolla, E.; Electrochemical conversion of biomass-based oxygenated compounds, Annual Review of Chemical and Biomolecular Engineering, 2019, 10, 85-104.
178. Casas, F.; Trincado, M.; Rodriguez-Lugo, R.; Baneerje, D.; Grützmacher, H.; A Diaminopropane Diolefin Ru(0) Complex Catalyzes Hydrogenation and Dehydrogenation Reactions, ChemCatChem, 2019, 11, 21, 5241-5251.
179. Cattaneo, S.; Stucchi, M.; Villa, A.; Prati, L.; Gold Catalysts for the Selective Oxidation of Biomass-Derived Products, ChemCatChem, 2019, 11, 1, 309-323.

- 180.** Cavalcanti, K. V. M.; Follegatti-Romero, L. M.; Dalmolin, I.; Follegatti-Romero, L. A.; Liquid-liquid equilibrium for (water + 5-hydroxymethylfurfural + 1-pentanol/1-hexanol/1-heptanol) systems at 298.15 K, *Journal of Chemical Thermodynamics*, 2019, 138, 59-66.
- 181.** Chen, Y.; Lin, H.; Li, Y.; Lin, M.; Chen, J.; Non-enzymatic browning and the kinetic model of 5-hydroxymethylfurfural formation in residual solution of vinegar soaked-soybean, *Industrial Crops and Products*, 2019, 135, 146-152.
- 182.** Chiu, Y. H.; Lai, T. H.; Kuo, M. Y.; Hsieh, P. Y.; Hsu, Y. J.; Photoelectrochemical cells for solar hydrogen production: Challenges and opportunities, *APL Materials*, 2019, 7, 8,
- 183.** Choi, E. H.; Lee, J.; Son, S. U.; Song, C.; Biomass-derived furanic polycarbonates: Mild synthesis and control of the glass transition temperature, *Journal of Polymer Science, Part A: Polymer Chemistry*, 2019, 57, 17, 1796-1800.
- 184.** Cui, M.; Huang, R.; Qi, W.; Su, R.; He, Z.; Synthesis of 2, 5-diformylfuran from 5-hydroxymethylfurfural in ethyl acetate using 4-acetamido-TEMPO as a recyclable catalyst, *Catalysis Today*, 2019, 319, 121-127.
- 185.** Cywar, R. M.; Wang, L.; Chen, E. Y. X.; Thermally Regulated Recyclable Carbene Catalysts for Upgrading of Biomass Furaldehydes, *ACS Sustainable Chemistry and Engineering*, 2019, 7, 2, 1980-1988.
- 186.** De Chavez, D. P.; Gao, M.; Kobayashi, H.; Fukuoka, A.; Hasegawa, J. Y.; Adsorption mediated tandem acid catalyzed cellulose hydrolysis by ortho-substituted benzoic acids, *Molecular Catalysis*, 2019, 475, 110459.
- 187.** de Melo, F. C.; Bariviera, W.; Zanchet, L.; de Souza, R. F.; de Souza, M. O.; C10MI·CF₃SO₃: a hydrophobic ionic liquid medium for the production of HMF from sugars avoiding the use of organic solvent, *Biomass Conversion and Biorefinery*, 2020, 10, 611–618.
- 188.** Fan, W.; Verrier, C.; Queneau, Y.; Popowycz, F.; 5-hydroxymethylfurfural (HMF) in organic synthesis: A review of its recent applications towards fine chemicals, *Current Organic Synthesis*, 2019, 16, 4, 583-614.
- 189.** Feng, J.; Dong, P.; Li, R.; Li, C.; Xie, X.; Shi, Q.; Effects of wood fiber properties on mold resistance of wood polypropylene composites, *International Biodeterioration and Biodegradation*, 2019, 140, 152-159.
- 190.** Feng, J.; Li, C.; Chen, J.; Chen, M.; Shu, X.; Shi, Q.; Evaluation of the association between natural mold resistance and chemical components of nine wood species, *BioResources*, 2019, 13, 3, 6524-6541.
- 191.** Feng, Y.; Li, M.; Gao, Z.; Zhang, X.; Zeng, X.; Sun, Y.; Tang, X.; Lei, T.; Lin, L.; Development of Betaine-Based Sustainable Catalysts for Green Conversion of Carbohydrates and Biomass into 5-Hydroxymethylfurfural, *ChemSusChem*, 2019, 12, 2, 495-502.

- 192.** Feng, Y.; Zuo, M.; Wang, T.; Jia, W.; Zhao, X.; Zeng, X.; Sun, Y.; Tang, X.; Lei, T.; Lin, L.; Efficient synthesis of glucose into 5-hydroxymethylfurfural with SO₄²⁻/ZrO₂ modified H + zeolites in different solvent systems, Journal of the Taiwan Institute of Chemical Engineers, 2019, 96, 431-438.
- 193.** Galkin, K. I.; Ananikov, V. P.; When Will 5-Hydroxymethylfurfural, the “Sleeping Giant” of Sustainable Chemistry, Awaken?, ChemSusChem, 2019, 12, 13, 2976-2982.
- 194.** Ghosh, A.; Ghosh, S.; Seshadhri, G. M.; Ramaprabhu, S.; Green synthesis of nitrogen-doped self-assembled porous carbon-metal oxide composite towards energy and environmental applications, Scientific Reports, 2019, 9, 5187.
- 195.** Ghosh, A.; Ramaprabhu, S.; Designed self-assembly of iron encapsulated doped porous carbon as durable electrocatalyst for oxygen reduction reaction in alkaline medium, Carbon, 2019, 152, 616-630.
- 196.** Grundl, G.; Tsurko, E. N.; Neueder, R.; Kunz, W.; Osmotic coefficients and activity coefficients in binary water/5-(hydroxymethyl)furfural and in ternary water/5-(hydroxymethyl)furfural/salt solutions at 298.15 K, Journal of Chemical Thermodynamics, 2019, 139, 105878.
- 197.** Guo, Q.; Ren, L.; Alhassan, S. M.; Tsapatsis, M.; Glucose isomerization in dioxane/water with Sn- β catalyst: Improved catalyst stability and use for HMF production, Chemical Communications, 2019, 55, 99, 14942-14945.
- 198.** Gupta, S.; Alam, M. I.; Khan, T. S.; Haider, M. A.; Mechanistic Approaches toward Rational Design of a Heterogeneous Catalyst for Ring-Opening and Deoxygenation of Biomass-Derived Cyclic Compounds, ACS Sustainable Chemistry and Engineering, 2019, 7, 12, 10165-10181.
- 199.** Gutiérrez, M. C.; Rosas, J. M.; Rodríguez-Cano, M. A.; López-Luque, I.; Rodríguez-Mirasol, J.; Cordero, T.; Strategic situation, design and simulation of a biorefinery in Andalusia, Energy Conversion and Management, 2019, 182, 201-214.
- 200.** Heo, J. B.; Lee, Y. S.; Chung, C. H.; Raw plant-based biorefinery: A new paradigm shift towards biotechnological approach to sustainable manufacturing of HMF, Biotechnology Advances, 2019, 37, 107422.,
- 201.** Hong, M.; Min, J.; Wu, S.; Cui, H.; Zhao, Y.; Li, J.; Wang, S.; Metal Nitrate Catalysis for Selective Oxidation of 5-Hydroxymethylfurfural into 2, 5-Diformylfuran under Oxygen Atmosphere, ACS Omega, 2019, 4, 4, 7054-7060.
- 202.** Howell, B. A.; Lazar, S. T.; Biobased Plasticizers from Carbohydrate-Derived 2, 5-Bis(hydroxymethyl)furan, Industrial and Engineering Chemistry Research, 2019, 58, 3, 1222-1228.
- 203.** Irshad, M.; Lee, S.; Choi, E.; Kim, J. W.; Efficient synthetic routes of biomass-derived platform chemicals, Applied Chemistry for Engineering, 2019, 30, 3, 280-289.

- 204.** Jia, W.; Du, J.; Liu, H.; Feng, Y.; Sun, Y.; Tang, X.; Zeng, X.; Lin, L.; An efficient approach to produce 2, 5-diformylfuran from 5-hydroxymethylfurfural using air as oxidant, *Journal of Chemical Technology and Biotechnology*, 2019, 94, 12, 3832-3838.
- 205.** Jiang, X.; Liu, J.; Ma, S.; Iron-Catalyzed Aerobic Oxidation of Alcohols: Lower Cost and Improved Selectivity, *Organic Process Research and Development*, 2019, 23, 5, 825-835.
- 206.** John, G.; Nagarajan, S.; Vemula, P. K.; Silverman, J. R.; Pillai, C. K. S.; Natural monomers: A mine for functional and sustainable materials – Occurrence, chemical modification and polymerization, *Progress in Polymer Science*, 2019, 92, 158-209.
- 207.** Jouve, A.; Cattaneo, S.; Capelli, S.; Stucchi, M.; Evangelisti, C.; Villa, A.; Prati, L.; CNF-functionalization as versatile tool for tuning activity in cellulose-derived product hydrogenation, *Molecules*, 2019, 24, 316.
- 208.** Kataoka, H.; Kosuge, D.; Ogura, K.; Ohyama, J.; Satsuma, A.; Reductive conversion of 5-hydroxymethylfurfural to 1, 2, 6-hexanetriol in water solvent using supported Pt catalysts, *Catalysis Today*, 2020, 352, 60-65.
- 209.** Kohli, K.; Prajapati, R.; Sharma, B. K.; Bio-based chemicals from renewable biomass for integrated biorefineries, *Energies*, 2019, 12, 2, 233.
- 210.** Kumar, A.; Srivastava, R.; CePO₄, a multi-functional catalyst for carbohydrate biomass conversion: Production of 5-hydroxymethylfurfural, 2, 5-diformylfuran, and γ -valerolactone, *Sustainable Energy and Fuels*, 2019, 3, 9, 2475-2489.
- 211.** Lanzafame, P.; Papanikolaou, G.; Barbera, K.; Centi, G.; Perathoner, S.; Etherification of HMF to biodiesel additives: The role of NH₄⁺ confinement in Beta zeolites, *Journal of Energy Chemistry*, 2019, 36, 114-121.
- 212.** Ledesma, B.; Juárez, J.; Mazarío, J.; Domíne, M.; Beltramone, A.; Bimetallic platinum/iridium modified mesoporous catalysts applied in the hydrogenation of HMF, *Catalysis Today*, 2021, 360, 147-156.
- 213.** Leng, E.; Mao, M.; Peng, Y.; Li, X.; Gong, X.; Zhang, Y.; The Direct Conversion of Cellulose into 5-Hydroxymethylfurfural with CrCl₃ Composite Catalyst in Ionic Liquid under Mild Conditions, *ChemistrySelect*, 2019, 4, 1, 181-189.
- 214.** Lhermitte, C. R.; Sivula, K.; Alternative Oxidation Reactions for Solar-Driven Fuel Production, *ACS Catalysis*, 2019, 9, 3, 2007-2017.
- 215.** Li, C.; Wang, L.; Wang, M.; Liu, B.; Liu, X.; Cui, D.; Step-Growth Coordination Polymerization of 5-Hydroxymethyl Furfural with Dihydrosilanes: Synergistic Catalysis Using Heteroscopionate Zinc Hydride and B(C₆F₅)₃, *Angewandte Chemie - International Edition*, 2019, 58, 33, 11434-11438.
- 216.** Li, M.; Zhang, Q.; Luo, B.; Chen, C.; Wang, S.; Min, D.; Lignin-based carbon solid acid catalyst prepared for selectively converting fructose to 5-hydroxymethylfurfural, *Industrial Crops and Products*, 2020, 145, 111920.

- 217.** Li, X.; Xu, R.; Yang, J.; Nie, S.; Liu, D.; Liu, Y.; Si, C.; Production of 5-hydroxymethylfurfural and levulinic acid from lignocellulosic biomass and catalytic upgradation, *Industrial Crops and Products*, 2019, 130, 184-197.
- 218.** Liu, H.; Yang, Y.; Liu, H.; Li, S.; Chen, C.; Wu, T.; Mei, Q.; Wang, Y.; Chen, B.; Han, B.; Hydrogenolysis of 5-Hydroxymethylfurfural to 2, 5-Dimethylfuran under Mild Conditions without Any Additive, *ACS Sustainable Chemistry and Engineering*, 2019, 7, 6, 5711-5716.
- 219.** Liu, K. J.; Zeng, T. Y.; Zeng, J. L.; Gong, S. F.; He, J. Y.; Lin, Y. W.; Tan, J. X.; Cao, Z.; He, W. M.; Solvent-dependent selective oxidation of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid under neat conditions, *Chinese Chemical Letters*, 2019, 30, 12, 2304-2308.
- 220.** Liu, Y.; Ma, H. Y.; Lei, D.; Lou, L. L.; Liu, S.; Zhou, W.; Wang, G. C.; Yu, K.; Active Oxygen Species Promoted Catalytic Oxidation of 5-Hydroxymethyl-2-furfural on Facet-Specific Pt Nanocrystals, *ACS Catalysis*, 2019, 9, 9, 8306-8315.
- 221.** Lu, S.; Wang, Q.; Li, X.; Qi, W.; Wang, Z.; Yuan, Z.; Progress on Preparation and Application of 5-Hydroxymethylfurfural, *Chemistry and Industry of Forest Products*, 2019, 39, 1, 13-22.
- 222.** Lucas, N.; Athawale, A. A.; Rode, C. V.; Valorization of Oceanic Waste Biomass: A Catalytic Perspective, *Chemical Record*, 2019, 19, 9, 1995-2021.
- 223.** Martin, O.; Bolzli, N.; Puertolas, B.; Pérez-Ramírez, J.; Riedlberger, P.; Preparation of highly active phosphated TiO₂ catalysts: Via continuous sol-gel synthesis in a microreactor, *Catalysis Science and Technology*, 2019, 9, 17, 4744-4758.
- 224.** Mayer, S. F.; Falcón, H.; Dipaola, R.; Ribota, P.; Moyano, L.; Morales-delaRosa, S.; Mariscal, R.; Campos-Martín, J. M.; Alonso, J. A.; Fierro, J. L. G.; Dehydration of fructose to HMF in presence of (H₃O)_xSbxTe(2-x)O₆ (x = 1, 1.1, 1.25) in H₂O-MIBK, *Molecular Catalysis*, 2020, 481, 110276.
- 225.** Motagamwala, A. H.; Huang, K.; Maravelias, C. T.; Dumesic, J. A.; Solvent system for effective near-term production of hydroxymethylfurfural (HMF) with potential for long-term process improvement, *Energy and Environmental Science*, 2019, 12, 7, 2212-2222.
- 226.** Nakagawa, Y.; Tamura, M.; Tomishige, K.; Recent development of production technology of diesel- and jet-fuel-range hydrocarbons from inedible biomass, *Fuel Processing Technology*, 2019, 193, 404-422.
- 227.** Nishimura, Y.; Suda, M.; Kuroha, M.; Kobayashi, H.; Nakajima, K.; Fukuoka, A.; Synthesis of 5-hydroxymethylfurfural from highly concentrated aqueous fructose solutions using activated carbon, *Carbohydrate Research*, 2019, 486,
- 228.** Nunes, L.; Martins, E.; Francisquini, J. D.; Stringheta, P. C.; Perrone, I. T.; De Carvalho, A. F.; Evaluation of the maillard reaction in infant formulas after opening, *Journal of Food and Nutrition Research*, 2019, 58, 3, 245-254.

- 229.** Onaran, G.; Gürel, L.; Argun, H.; Detoxification of waste hand paper towel hydrolysate by activated carbon adsorption, International Journal of Environmental Science and Technology, 2019,
- 230.** Onkarappa, S. B.; Dutta, S.; Phase Transfer Catalyst Assisted One-Pot Synthesis of 5-(Chloromethyl)furfural from Biomass-Derived Carbohydrates in a Biphasic Batch Reactor, ChemistrySelect, 2019, 4, 25, 7502-7506.
- 231.** Oshima, T.; Iwao, S.; Matsuo, N.; Ohe, K.; Extraction behavior of precious metals in hydrochloric-acid media using a novel amine extractant bearing a furan group, Biocontrol Science, 2019, 26, 2, 69-80.
- 232.** Osorio-González, C. S.; Hegde, K.; Brar, S. K.; Kermanshahipour, A.; Avalos-Ramírez, A.; Data set of green extraction of valuable chemicals from lignocellulosic biomass using microwave method, Data in Brief, 2019, 26,
- 233.** Otomo, R.; Fujimoto, M.; Nagao, M.; Kamiya, Y.; Ammonia-treated metal oxides as base catalysts for selective isomerization of glucose in water, Molecular Catalysis, 2019, 475, 110479.
- 234.** Özkaynak Kanmaz, E.; Humic acid formation during subcritical water extraction of food by-products using accelerated solvent extractor, Food and Bioproducts Processing, 2019, 115, 118-125.
- 235.** Pal, P.; Saravanamurugan, S.; Recent Advances in the Development of 5-Hydroxymethylfurfural Oxidation with Base (Nonprecious)-Metal-Containing Catalysts, ChemSusChem, 2019, 12, 1, 145-163.
- 236.** Park, S. H.; Scheffler, J.; Scheffler, B.; Cantrell, C. L.; Pauli, C. S.; Chemical defense responses of upland cotton, *Gossypium hirsutum* L. to physical wounding, Plant Direct, 2019, 3, 5,
- 237.** Pérez Nebreda, A.; Russo, V.; Di Serio, M.; Eränen, K.; Murzin, D. Y.; Salmi, T.; Grénman, H.; High purity fructose from inulin with heterogeneous catalysis – from batch to continuous operation, Journal of Chemical Technology and Biotechnology, 2019, 94, 2, 418-425.
- 238.** Pertiwi, R.; Oozeerally, R.; Burnett, D. L.; Chamberlain, T. W.; Cherkasov, N.; Walker, M.; Kashtiban, R. J.; Krisnandi, Y. K.; Degirmenci, V.; Walton, R. I.; Replacement of chromium by non-toxic metals in lewis-acid MOFs: Assessment of stability as glucose conversion catalysts, Catalysts, 2019, 9, 437.
- 239.** Portillo Perez, G.; Mukherjee, A.; Dumont, M. J.; Insights into HMF catalysis, Journal of Industrial and Engineering Chemistry, 2019, 70, 1-34.
- 240.** Pyo, S. H.; Sayed, M.; Hatti-Kaul, R.; Batch and Continuous Flow Production of 5-Hydroxymethylfurfural from a High Concentration of Fructose Using an Acidic Ion Exchange Catalyst, Organic Process Research and Development, 2019, 23, 5, 952-960.

- 241.** Rani, P.; Srivastava, R.; Multi-functional metal-organic framework and metal-organic framework-zeolite nanocomposite for the synthesis of carbohydrate derived chemicals via one-pot cascade reaction, *Journal of Colloid and Interface Science*, 2019, 557, 144-155.
- 242.** Rao, K. T. V.; Souzanchi, S.; Yuan, Z.; Xu, C.; One-pot sol-gel synthesis of a phosphated TiO₂ catalyst for conversion of monosaccharide, disaccharides, and polysaccharides to 5-hydroxymethylfurfural, *New Journal of Chemistry*, 2019, 43, 31, 12483-12493.
- 243.** Rathod, P. V.; Mujmule, R. B.; Chung, W. J.; Jadhav, A. R.; Kim, H.; Efficient Dehydration of Glucose, Sucrose, and Fructose to 5-Hydroxymethylfurfural Using Tricationic Ionic Liquids, *Catalysis Letters*, 2019, 149, 3, 672-687.
- 244.** Rivas, S.; Vila, C.; Alonso, J. L.; Santos, V.; Parajó, J. C.; Leahy, J. J.; Biorefinery processes for the valorization of Miscanthus polysaccharides: from constituent sugars to platform chemicals, *Industrial Crops and Products*, 2019, 134, 309-317.
- 245.** Romero, A.; Nieto-Márquez, A.; Essayem, N.; Alonso, E.; Pinel, C.; Improving conversion of D-Glucose into short-chain alkanes over RU/MCM-48 based catalysts, *Microporous and Mesoporous Materials*, 2019, 286, 25-35.
- 246.** Sang, B.; Li, J.; Tian, X.; Yuan, F.; Zhu, Y.; Selective aerobic oxidation of the 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid over gold nanoparticles supported on graphitized carbon: Study on reaction pathways, *Molecular Catalysis*, 2019, 470, 67-74.
- 247.** Sansuk, S.; Subsadsana, M.; Synthesis of 5-hydroxymethylfurfural from glucose using H-Beta catalyst treated with phosphoric acid in one-pot biphasic solvent system, *Energy Sources, Part A: Recovery, Utilization and Environmental Effects*, 2019, 41, 22, 2769-2777.
- 248.** Schade, O. R.; Dannecker, P. K.; Kalz, K. F.; Steinbach, D.; Meier, M. A. R.; Grunwaldt, J. D.; Direct Catalytic Route to Biomass-Derived 2, 5-Furandicarboxylic Acid and Its Use as Monomer in a Multicomponent Polymerization, *ACS Omega*, 2019, 4, 16, 16972-16979.
- 249.** Serrano, A.; Calviño, E.; Carro, J.; Sánchez-Ruiz, M. I.; Cañada, F. J.; Martínez, A. T.; Complete oxidation of hydroxymethylfurfural to furandicarboxylic acid by aryl-alcohol oxidase, *Biotechnology for Biofuels*, 2019, 12, 217.
- 250.** Sharma, P.; Solanki, M.; Sharma, R. K.; Metal-functionalized carbon nanotubes for biomass conversion: Base-free highly efficient and recyclable catalysts for aerobic oxidation of 5-hydroxymethylfurfural, *New Journal of Chemistry*, 2019, 43, 26, 10601-10609.
- 251.** Shi, S. S.; Zhang, X. Y.; Zong, M. H.; Wang, C. F.; Li, N.; Selective synthesis of 2-furoic acid and 5-hydroxymethyl-2-furancarboxylic acid from bio-based furans by recombinant *Escherichia coli* cells, *Molecular Catalysis*, 2019, 469, 68-74.
- 252.** Smink, D.; Juan, A.; Schuur, B.; Kersten, S. R. A.; Understanding the Role of Choline Chloride in Deep Eutectic Solvents Used for Biomass Delignification, *Industrial and Engineering Chemistry Research*, 2019, 58, 36, 16348-16357.

- 253.** Stökle, K.; Hülsemann, B.; Steinbach, D.; Cao, Z.; Oechsner, H.; Kruse, A.; A biorefinery concept using forced chicory roots for the production of biogas, hydrochar, and platform chemicals, *Biomass Conversion and Biorefinery*, 2021, 11, 1453–1463.
- 254.** Stökle, K.; Kruse, A.; Extraction of sugars from forced chicory roots, *Biomass Conversion and Biorefinery*, 2019, 9, 4, 699-708.
- 255.** Subsadsana, M.; Miyake, K.; Ono, K.; Ota, M.; Hirota, Y.; Nishiyama, N.; Sansuk, S.; Bifunctional ZSM-5/hydrotalcite composite for enhanced production of 5-hydroxymethylfurfural from glucose, *New Journal of Chemistry*, 2019, 43, 24, 9483-9490.
- 256.** Tang, Y.; Cheng, Y.; Xu, H.; Wang, Y.; Ke, L.; Huang, X.; Liao, X.; Shi, B.; Binary oxide nanofiber bundle supported Keggin-type phosphotungstic acid for the synthesis of 5-hydroxymethylfurfural, *Catalysis Communications*, 2019, 123, 96-99.
- 257.** Tang, Z.; Su, J.; Direct conversion of cellulose to 5-hydroxymethylfurfural (HMF) using an efficient and inexpensive boehmite catalyst, *Carbohydrate Research*, 2019, 481, 52-59.
- 258.** Tang, Z.; Su, J.; Direct Conversion of Glucose to 5-Hydroxymethyl-furfural (HMF) Using an Efficient and Inexpensive Boehmite Catalyst in Dimethyl Sulfoxide, *BioResources*, 2019, 14, 3, 5943-5963.
- 259.** Thamizhanban, A.; Lalitha, K.; Sarvepalli, G. P.; Maheswari, C. U.; Sridharan, V.; Rayappan, J. B. B.; Nagarajan, S.; Smart supramolecular gels of enolizable amphiphilic glycosylfuran, *Journal of Materials Chemistry B*, 2019, 7, 40, 6238-6246.
- 260.** Tian, Z.; Li, J.; Yan, Y.; A reduced mechanism for 2, 5-dimethylfuran with assembled mechanism reduction methods, *Fuel*, 2019, 250, 52-64.
- 261.** Tran, M. N. T.; Nguyen, X. T. T.; Nguyen, H. T.; Chau, D. K. N.; Tran, P. H.; Deep eutectic solvent: An efficient and green catalyst for the three-component condensation of indoles, aromatic aldehydes, and activated methylene compounds, *Tetrahedron Letters*, 2020, 61, 151481.
- 262.** Tran, P. H.; Tran, P. V.; A highly selective and efficient method for the production of 5-hydroxymethylfurfural from dehydration of fructose using SACS/DES catalytic system, *Fuel*, 2019, 246, 18-23.
- 263.** Viar, N.; Requier, J. M.; Agirre, I.; Iriondo, A.; Arias, P. L.; Furanic biofuels production from biomass using Cu-based heterogeneous catalysts, *Energy*, 2019, 172, 531-544.
- 264.** Wang, H.; Zhu, C.; Li, D.; Liu, Q.; Tan, J.; Wang, C.; Cai, C.; Ma, L.; Recent advances in catalytic conversion of biomass to 5-hydroxymethylfurfural and 2, 5-dimethylfuran, *Renewable and Sustainable Energy Reviews*, 2019, 103, 227-247.
- 265.** Wang, L.; Tan, J. N.; Ahmar, M.; Queneau, Y.; New functionalized scaffolds from hydroxymethylfurfural and glucosyloxymethylfurfural by Morita–Baylis–Hillman reaction with cycloalkenones, *Comptes Rendus Chimie*, 2019, 22, 9-10, 615-620.

- 266.** Wang, L.; Tan, J. N.; Ahmar, M.; Queneau, Y.; Solvent issues in the Baylis-Hillman reaction of 5-hydroxymethyl furfural (HMF) and 5-glucosyloxymethyl furfural (GMF). Towards no-solvent conditions, *Pure and Applied Chemistry*, 2019, 91, 7, 1149-1158.
- 267.** Wang, Y.; Hou, Q.; Ju, M.; Li, W.; New developments in material preparation using a combination of ionic liquids and microwave irradiation, *Nanomaterials*, 2019, 9, 647.
- 268.** Wei, L.; Zhang, J.; Deng, W.; Xie, S.; Zhang, Q.; Wang, Y.; Catalytic transformation of 2, 5-furandicarboxylic acid to adipic acid over niobic acid-supported Pt nanoparticles, *Chemical Communications*, 2019, 55, 55, 8013-8016.
- 269.** Wen, Z.; Yu, L.; Mai, F.; Ma, Z.; Chen, H.; Li, Y.; Catalytic Conversion of Microcrystalline Cellulose to Glucose and 5-Hydroxymethylfurfural over a Niobic Acid Catalyst, *Industrial and Engineering Chemistry Research*, 2019, 58, 38, 17675-17681.
- 270.** Wozniak, B.; Tin, S.; De Vries, J. G.; Bio-based building blocks from 5-hydroxymethylfurfural via 1-hydroxyhexane-2, 5-dione as intermediate, *Chemical Science*, 2019, 10, 24, 6024-6034.
- 271.** Xu, J.; Fan, W.; Popowycz, F.; Queneau, Y.; Gu, Y.; Multicomponent Reactions: A New Strategy for Enriching the Routes of Value-Added Conversions of Bio-platform Molecules, *Chinese Journal of Organic Chemistry*, 2019, 39, 8, 2131-2138.
- 272.** Xu, S.; Pan, D.; Hu, F.; Wu, Y.; Wang, H.; Chen, Y.; Yuan, H.; Gao, L.; Xiao, G.; Highly efficient Cr/B zeolite catalyst for conversion of carbohydrates into 5-hydroxymethylfurfural: Characterization and performance, *Fuel Processing Technology*, 2019, 190, 38-46.
- 273.** Xu, S.; Pan, D.; Wu, Y.; Xu, N.; Yang, H.; Gao, L.; Li, W.; Xiao, G.; Direct Conversion of Wheat Straw Components into Furan Compounds Using a Highly Efficient and Reusable SnCl₂-PTA/β Zeolite Catalyst, *Industrial and Engineering Chemistry Research*, 2019, 58, 22, 9276-9285.
- 274.** Xu, S.; Yin, C.; Pan, D.; Hu, F.; Wu, Y.; Miao, Y.; Gao, L.; Xiao, G.; Efficient conversion of glucose into 5-hydroxymethylfurfural using a bifunctional Fe 3+ modified Amberlyst-15 catalyst, *Sustainable Energy and Fuels*, 2019, 3, 2, 390-395.
- 275.** Xue, J.; Huang, C.; Zong, Y.; Gu, J.; Wang, M.; Ma, S.; Fe (III)-grafted Bi₂MoO₆ nanoplates for enhanced photocatalytic activities on tetracycline degradation and HMF oxidation, *Applied Organometallic Chemistry*, 2019, 33, e5187.
- 276.** Yabushita, M.; Shibayama, N.; Nakajima, K.; Fukuoka, A.; Selective Glucose-to-Fructose Isomerization in Ethanol Catalyzed by Hydrotalcites, *ACS Catalysis*, 2019, 9, 3, 2101-2109.
- 277.** Yamada, T.; Kamata, K.; Hayashi, E.; Hara, M.; Uchida, S.; Structure-Function Relationships in Fructose Dehydration to 5-Hydroxymethylfurfural under Mild Conditions by Porous Ionic Crystals Constructed with Analogous Building Blocks, *ChemCatChem*, 2019, 11, 16, 3745-3749.

- 278.** Yamada, T.; Kamata, K.; Hayashi, E.; Hara, M.; Uchida, S.; Structure-Function Relationships in Fructose Dehydration to 5-Hydroxymethylfurfural under Mild Conditions by Porous Ionic Crystals Constructed with Analogous Building Blocks, *ChemCatChem*, 2019, 11, 16, 3745-3749.
- 279.** Yan, L.; Ma, R.; Wei, H.; Li, L.; Zou, B.; Xu, Y.; Ruthenium trichloride catalyzed conversion of cellulose into 5-hydroxymethylfurfural in biphasic system, *Bioresource Technology*, 2019, 279, 84-91.
- 280.** Yan, L.; Ma, R.; Wei, H.; Li, L.; Zou, B.; Xu, Y.; Ruthenium trichloride catalyzed conversion of cellulose into 5-hydroxymethylfurfural in biphasic system, *Bioresource Technology*, 2019, 279, 84-91.
- 281.** Agutaya, J. K. C. N.; Inoue, R.; Vin Tsie, S. S.; Quitain, A. T.; De La Pena-Garcia, J.; Perez-Sanchez, H.; Sasaki, M.; Kida, T.; Metal-Free Synthesis of HMF from Glucose Using the Supercritical CO₂-Subcritical H₂O-Isopropanol System, *Industrial and Engineering Chemistry Research*, 2020, 59, 38, 16527-16538.
- 282.** Arias, P. L.; Cecilia, J. A.; Gandarias, I.; Iglesias, J.; Lopez Granados, M.; Mariscal, R.; Morales, G.; Moreno-Tost, R.; Maireles-Torres, P.; Oxidation of lignocellulosic platform molecules to value-added chemicals using heterogeneous catalytic technologies, *Catalysis Science and Technology*, 2020, 10, 9, 2721-2757.
- 283.** Ayed, C.; Huang, W.; Kizilsavas, G.; Landfester, K.; Zhang, K. A. I.; Photocatalytic Partial Oxidation of 5-Hydroxymethylfurfural (HMF) to 2, 5-Diformylfuran (DFF) Over a Covalent Triazine Framework in Water, *ChemPhotoChem*, 2020, 4, 8, 571-576.
- 284.** Aylak, A. R.; Akman, S.; Koc, S. N.; Glucose conversion to 5-hydroxymethylfurfural with chromium exchanged bentonite and montmorillonite catalysts in different solvents, *Chemical Engineering Communications*, 2020, 207, 8, 1103-1113.
- 285.** Bellardita, M.; Loddo, V.; Palmisano, L.; Formation of high added value chemicals by photocatalytic treatment of biomass, *Mini-Reviews in Organic Chemistry*, 2020, 17, 7, 884-901.
- 286.** Bhat, N. S.; Vinod, N.; Onkarappa, S. B.; Dutta, S.; Hydrochloric acid-catalyzed coproduction of furfural and 5-(chloromethyl)furfural assisted by a phase transfer catalyst, *Carbohydrate Research*, 2020, 496, 108105.
- 287.** Bihanic, C.; Richards, K.; Olszewski, T. K.; Grison, C.; Eco-Mn Ecocatalysts: Toolbox for Sustainable and Green Lewis Acid Catalysis and Oxidation Reactions, *ChemCatChem*, 2020, 12, 6, 1529-1545.
- 288.** Butburee, T.; Chakthranont, P.; Phawa, C.; Faungnawakij, K.; Beyond Artificial Photosynthesis: Prospects on Photobiorefinery, *ChemCatChem*, 2020, 12, 7, 1873-1890.
- 289.** Cai, M.; Ding, S.; Gibbons, B.; Yang, X.; Kessinger, M. C.; Morris, A. J.; Nickel(ii)-modified covalent-organic framework film for electrocatalytic oxidation of 5-hydroxymethylfurfural (HMF), *Chemical Communications*, 2020, 56, 92, 14361-14364.

- 290.** Cattaneo, S.; Bonincontro, D.; Bere, T.; Kiely, C. J.; Hutchings, G. J.; Dimitratos, N.; Albonetti, S.; Continuous Flow Synthesis of Bimetallic AuPd Catalysts for the Selective Oxidation of 5-Hydroxymethylfurfural to 2, 5-Furandicarboxylic Acid, *ChemNanoMat*, 2020, 6, 3, 420-426.
- 291.** Chaillot, D.; Bennici, S.; Brendle, J.; Layered double hydroxides and LDH-derived materials in chosen environmental applications: a review, *Environmental Science and Pollution Research*, 2021, 28, 24375–24405.
- 292.** Chang, Y. W.; Zeng, X. Y.; Sung, W. C.; Effect of chitooligosaccharide and different low molecular weight chitosans on the formation of acrylamide and 5-hydroxymethylfurfural and Maillard reaction products in glucose/fructose-asparagine model systems, *LWT*, 2020, 119, 108879.
- 293.** Chen, J.; Ma, Z.; Xia, C.; Zhang, Y.; Shu, X.; Efficient autocatalytic oximation of bio-based 2, 5-diformylfuran with aqueous hydroxylamine under mild conditions, *Green Chemistry*, 2020, 22, 13, 4140-4146.
- 294.** Chithra, P. A.; Darbha, S.; Catalytic conversion of HMF into ethyl levulinate – A biofuel over hierarchical zeolites, *Catalysis Communications*, 2020, 140,
- 295.** Choudhary, A.; Kumar, V.; Kumar, S.; Majid, I.; Aggarwal, P.; Suri, S.; 5-Hydroxymethylfurfural (HMF) formation, occurrence and potential health concerns: recent developments, *Toxin Reviews*, 2020,
- 296.** De Dios Miguel, T.; Duc Vu, N.; Lemaire, M.; Duguet, N.; Biobased Aldehydes from Fatty Epoxides through Thermal Cleavage of α -Hydroxy Hydroperoxides**, *ChemSusChem*, 2020, 140, 105998.
- 297.** de Melo, F. C.; Bariviera, W.; Zanchet, L.; de Souza, R. F.; de Souza, M. O.; C10MI·CF₃SO₃: a hydrophobic ionic liquid medium for the production of HMF from sugars avoiding the use of organic solvent, *Biomass Conversion and Biorefinery*, 2020, 10, 2, 611-618.
- 298.** Demesa, A. G.; Laari, A.; Sillanpaa, M. Value-added chemicals and materials from lignocellulosic biomass: Carboxylic acids and cellulose nanocrystals. Carboxylic acids and cellulose nanocrystals. *Advanced Water Treatment: Advanced Oxidation Processes*: 2020, 367-436.
- 299.** Ding, L.; Yang, W.; Chen, L.; Cheng, H.; Qi, Z.; Fabrication of spinel CoMn₂O₄ hollow spheres for highly selective aerobic oxidation of 5-hydroxymethylfurfural to 2, 5-diformylfuran, *Catalysis Today*, 2020, 347, 39-47.
- 300.** Dutta, S.; Bhat, N. S.; Catalytic synthesis of renewable p-xylene from biomass-derived 2, 5-dimethylfuran: a mini review, *Biomass Conversion and Biorefinery*, 2020, doi.org/10.1007/s13399-020-01042-z
- 301.** Dvores, M. P.; Carcabal, P.; Maitre, P.; Simons, J. P.; Gerber, R. B.; Gas phase dynamics, conformational transitions and spectroscopy of charged saccharides: The oxocarbenium ion,

protonated anhydrogalactose and protonated methyl galactopyranoside, *Physical Chemistry Chemical Physics*, 2020, 22, 7, 4144-4157.

302. Figliolia, R.; Cavigli, P.; Comuzzi, C.; Del Zotto, A.; Lovison, D.; Strazzolini, P.; Susmel, S.; Zuccaccia, D.; Ballico, M.; Baratta, W.; CNN pincer ruthenium complexes for efficient transfer hydrogenation of biomass-derived carbonyl compounds, *Dalton Transactions*, 2020, 49, 2, 453-465.
303. Galkin, K. I.; Ananikov, V. P.; The Increasing Value of Biomass: Moving From C6 Carbohydrates to Multifunctionalized Building Blocks via 5-(hydroxymethyl)furfural, *ChemistryOpen*, 2020, 9, 11, 1135-1148.
304. Gao, L.; Gan, S.; Ma, J.; Sun, Z.; Liu, Z.; Zhong, L.; Zhou, K.; Han, F.; Wang, W.; Han, D.; Niu, L.; Titanium Oxide-Confining Manganese Oxide for One-Step Electrocatalytic Preparation of 2, 5-Furandicarboxylic Acid in Acidic Media, *ChemElectroChem*, 2020, 7, 20, 4251-4258.
305. Gao, L.; Liu, Z.; Ma, J.; Zhong, L.; Song, Z.; Xu, J.; Gan, S.; Han, D.; Niu, L.; NiSe@NiOx core-shell nanowires as a non-precious electrocatalyst for upgrading 5-hydroxymethylfurfural into 2, 5-furandicarboxylic acid, *Applied Catalysis B: Environmental*, 2020, 261, 118235.
306. Guo, B.; He, L.; Tang, G.; Zhang, L.; Ye, L.; Yue, B.; Tsang, S. C. E.; He, H.; Dehydration of sugars to 5-hydroxymethylfurfural and non-stoichiometric formic and levulinic acids over mesoporous Ta and Ta-W oxide solid acid catalysts, *Chinese Journal of Catalysis*, 2020, 41, 8, 1248-1260.
307. Guo, W.; Heeres, H. J.; Yue, J.; Continuous synthesis of 5-hydroxymethylfurfural from glucose using a combination of AlCl₃ and HCl as catalyst in a biphasic slug flow capillary microreactor, *Chemical Engineering Journal*, 2020, 381, 122754.
308. Guo, W.; Zuo, M.; Zhao, J.; Li, C.; Xu, Q.; Xu, C.; Wu, H.; Sun, Z.; Chu, W.; Novel Bronsted-Lewis acidic di-cationic ionic liquid for efficient conversion carbohydrate to platform compound, *Cellulose*, 2020, 27, 12, 6897-6908.
309. Gupta, D.; Mahajani, S. M.; Garg, A.; Investigation on hydrochar and macromolecules recovery opportunities from food waste after hydrothermal carbonization, *Science of the Total Environment*, 2020, 749, 142294.
310. Hardwick, T.; Qurashi, A.; Shirinfar, B.; Ahmed, N.; Interfacial Photoelectrochemical Catalysis: Solar-Induced Green Synthesis of Organic Molecules, *ChemSusChem*, 2020, 13, 8, 1967-1973.
311. He, H.; Hou, Y.; Wei, D.; Che, D.; Wang, C.; Hu, T.; Wang, N.; He, L.; HMF causes anaphylactic symptoms by acting as a H1 receptor agonist, *Biochemical Pharmacology*, 2020, 177, 114008.
312. Hermann, A.; Hill, S.; Metz, A.; Heck, J.; Hoffmann, A.; Hartmann, L.; Herres-Pawlisch, S.; Next Generation of Zinc Bisguanidine Polymerization Catalysts towards Highly

Crystalline, Biodegradable Polyesters, *Angewandte Chemie - International Edition*, 2020, 59, 48, 21778-21784.

313. Hsu, C. T.; Kuo, Y. C.; Liu, Y. C.; Tsai, S. L.; Green conversion of 5-hydroxymethylfurfural to furan-2, 5-dicarboxylic acid by heterogeneous expression of 5-hydroxymethylfurfural oxidase in *Pseudomonas putida* S12, *Microbial Biotechnology*, 2020, 13, 4, 1094-1102.
314. Hu, Z.; Ge, S.; Yang, J.; Li, Y.; Bi, H.; Zheng, D.; Zhao, Y.; Peng, W.; Zhang, Z.; Molecular characteristics and function of elliptical Kiwifruit, *Journal of King Saud University - Science*, 2020, 32, 3, 1884-1888.
315. Huang, Y. B.; Luo, Y. J.; Rio Flores, A. D.; Li, L. C.; Wang, F.; N-Aryl Pyrrole Synthesis from Biomass-Derived Furans and Arylamine over Lewis Acidic Hf-Doped Mesoporous SBA-15 Catalyst, *ACS Sustainable Chemistry and Engineering*, 2020, 8, 32, 12161-12167.
316. Iglesias, J.; Martinez-Salazar, I.; Maireles-Torres, P.; Martin Alonso, D.; Mariscal, R.; Lopez Granados, M.; Advances in catalytic routes for the production of carboxylic acids from biomass: A step forward for sustainable polymers, *Chemical Society Reviews*, 2020, 49, 16, 5704-5771.
317. Istasse, T.; Lemaur, V.; Debroux, G.; Bockstal, L.; Lazzaroni, R.; Richel, A.; Monosaccharides Dehydration Assisted by Formation of Borate Esters of ?-Hydroxyacids in Choline Chloride-Based Low Melting Mixtures, *Frontiers in Chemistry*, 2020, 8, 569.
318. Istasse, T.; Richel, A.; Mechanistic aspects of saccharide dehydration to furan derivatives for reaction media design, *RSC Advances*, 2020, 10, 40, 23720-23742.
319. Jin, M.; Yu, L.; Chen, H.; Ma, X.; Cui, K.; Wen, Z.; Ma, Z.; Sang, Y.; Chen, M.; Li, Y.; Base-free selective conversion of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid over a CoO_x-CeO₂ catalyst, *Catalysis Today*, 2021, 367, 2-8.
320. Ju, Z.; Yao, X.; Luo, Z.; Cao, M.; Xiao, W.; Theoretical studies on the noncovalent interaction of fructose and functionalized ionic liquids, *Carbohydrate Research*, 2020, 487, 107882.
321. Kandasamy, P.; Gogoi, P.; Venugopal, A. T.; Raja, T.; A highly efficient and reusable Ru-NaY catalyst for the base free oxidation of 5-Hydroxymethylfurfural to 2, 5-Furandicarboxylic acid, *Catalysis Today*, 2021, 375, 145-154.
322. Karlinskii, B. Y.; Ananikov, V. P.; Catalytic CH Functionalization of Unreactive Furan Cores in Bio-Derived Platform Chemicals, *ChemSusChem*, 2021, 14, 558–568.
323. Kashparova, V. P.; Klushin, V. A.; Zhukova, I. Y.; Kashparov, I. I.; Andreeva, V. E.; Smirnova, N. V.; 2, 5-furandicarboxylic acid dicinamil ether and new copolymers on its basis, *Izvestiya Vysshikh Uchebnykh Zavedenii, Seriya Khimiya i Khimicheskaya Tekhnologiya*, 2020, 63, 9, 4-11.
324. Kataoka, H.; Kosuge, D.; Ogura, K.; Ohyama, J.; Satsuma, A.; Reductive conversion of 5-

hydroxymethylfurfural to 1, 2, 6-hexanetriol in water solvent using supported Pt catalysts, *Catalysis Today*, 2020, 352, 60-65.

325. Kawamura, K.; Sako, K.; Ogata, T.; Mine, T.; Tanabe, K.; Production of 5-hydroxymethylfurfural by the hydrothermal treatment of cotton fabric wastes using a pilot-plant scale flow reactor, *Bioresource Technology Reports*, 2020, 11, 100476.
326. Kawamura, K.; Sako, K.; Ogata, T.; Tanabe, K.; Environmentally friendly, hydrothermal treatment of mixed fabric wastes containing polyester, cotton, and wool fibers: Application for HMF production, *Bioresource Technology Reports*, 2020, 11, 100478.
327. Kholiya, F.; Rathod, M. R.; Gangapur, D. R.; Adimurthy, S.; Meena, R.; An integrated effluent free process for the production of 5-hydroxymethyl furfural (HMF), levulinic acid (LA) and KNS-ML from aqueous seaweed extract, *Carbohydrate Research*, 2020, 490, 107953.
328. Kisszekelyi, P.; Hardian, R.; Vovusha, H.; Chen, B.; Zeng, X.; Schwingenschlogl, U.; Kupai, J.; Szekely, G.; Selective Electrocatalytic Oxidation of Biomass-Derived 5-Hydroxymethylfurfural to 2, 5-Diformylfuran: from Mechanistic Investigations to Catalyst Recovery, *ChemSusChem*, 2020, 13, 3127 –3136.
329. Knierbein, M.; Voges, M.; Held, C.; 5-Hydroxymethylfurfural Synthesis in Nonaqueous Two-Phase Systems (NTPS)-PC-SAFT Predictions and Validation, *Organic Process Research and Development*, 2020, 24, 6, 1052-1062.
330. Kong, Q. S.; Li, X. L.; Xu, H. J.; Fu, Y.; Conversion of 5-hydroxymethylfurfural to chemicals: A review of catalytic routes and product applications, *Fuel Processing Technology*, 2020, 209, 106528.
331. Kruschitz, A.; Nidetzky, B.; Reactive extraction of fructose for efficient separation of sucrose-derived glucosides produced by enzymatic glycosylation, *Green Chemistry*, 2020, 22, 15, 4985-4994.
332. Kumar, S.; Sharma, S.; Kansal, S. K.; Elumalai, S.; Efficient Conversion of Glucose into Fructose via Extraction-Assisted Isomerization Catalyzed by Endogenous Polyamine Spermine in the Aqueous Phase, *ACS Omega*, 2020, 5, 5, 2406-2418.
333. Lancien, A.; Wojcieszak, R.; Cuvelier, E.; Duban, M.; Dhulster, P.; Paul, S.; Dumeignil, F.; Froidevaux, R.; Heuson, E.; Hybrid Conversion of 5-Hydroxymethylfurfural to 5-Aminomethyl-2-furancarboxylic acid: Toward New Bio-sourced Polymers, *ChemCatChem*, 2021, 13, 247–259.
334. Li, M.; Yu, X.; Zhou, C.; Yagoub, A. E. A.; Ji, Q.; Chen, L.; Construction of an integrated platform for 5-HMF production and separation based on ionic liquid aqueous two-phase system, *Journal of Molecular Liquids*, 2020, 313, 113529.
335. Li, M.; Zhang, Q.; Luo, B.; Chen, C.; Wang, S.; Min, D.; Lignin-based carbon solid acid catalyst prepared for selectively converting fructose to 5-hydroxymethylfurfural, *Industrial Crops and Products*, 2020, 145, 111920.

- 336.** Li, T.; Ong, S. S. G.; Zhang, J.; Jia, C.; Sun, J.; Wang, Y.; Lin, H.; One-pot conversion of carbohydrates into furan derivatives in biphasic tandem catalytic process, *Catalysis Today*, 2020, 339, 296-304.
- 337.** Lucas, N.; Gurrala, L.; Halligudi, S. B.; Efficacy of Octahedral Molecular Sieves for green and sustainable catalytic reactions, *Molecular Catalysis*, 2020, 490, 110966.
- 338.** Lucas, N.; Nagpure, A. S.; Gurrala, L.; Gogoi, P.; Chilukuri, S.; Efficacy of clay catalysts for the dehydration of fructose to 5-hydroxymethyl furfural in biphasic medium, *Journal of Porous Materials*, 2020, 27, 6, 1691-1700.
- 339.** Luo, W.; Yang, Y.; Liu, B.; Yin, B.; Iron-Catalyzed Oxidative Decarbonylative ?-Alkylation of Acyl-Substituted Furans with Aliphatic Aldehydes as the Alkylating Agents, *Journal of Organic Chemistry*, 2020, 85, 14, 9396-9404.
- 340.** Martinez, J. J.; Paez, L. A.; Gutierrez, L. F.; Pardo Cuervo, O. H.; Rojas, H. A.; Romanelli, G. P.; Portilla, J.; Castillo, J. C.; Becerra, D.; Obtaining Protoanemonin through Selective Oxidation of D-Fructose and 5-(Hydroxymethyl)furfural in a Self-catalysed Reaction, *Asian Journal of Organic Chemistry*, 2020, 9, 12, 2184-2190.
- 341.** Mathieu, Y.; Offen, W. A.; Forget, S. M.; Ciano, L.; Viborg, A. H.; Blagova, E.; Henrissat, B.; Walton, P. H.; Davies, G. J.; Brumer, H.; Discovery of a Fungal Copper Radical Oxidase with High Catalytic Efficiency toward 5-Hydroxymethylfurfural and Benzyl Alcohols for Bioprocessing, *ACS Catalysis*, 2020, 10, 5, 3042-3058.
- 342.** Mayer, S. F.; Falcon, H.; Dipaola, R.; Ribota, P.; Moyano, L.; Morales-delaRosa, S.; Mariscal, R.; Campos-Martin, J. M.; Alonso, J. A.; Fierro, J. L. G.; Dehydration of fructose to HMF in presence of $(H_3O)_xSbxTe(2-x)O_6$ ($x = 1, 1.1, 1.25$) in H_2O -MIBK, *Molecular Catalysis*, 2020, 481, 110276.
- 343.** Meneses-Olmedo, L. M.; Cuesta Hoyos, S.; Salgado Moran, G.; Cardona Villada, W.; Gerli Candia, L.; Mendoza-Huizar, L. H.; Insights on the mechanism, reactivity and selectivity of fructose and tagatose dehydration into 5-hydroxymethylfurfural: A DFT study, *Computational and Theoretical Chemistry*, 2020, 1190, 113009.
- 344.** Mengstie, M. A.; Habtu, N. G.; Synthesis and Characterization of 5-Hydroxymethylfurfural from Corncob Using Solid Sulfonated Carbon Catalyst, *International Journal of Chemical Engineering*, 2020, Article ID 8886361.
- 345.** Morais, E. S.; Da Costa Lopes, A. M.; Freire, M. G.; Freire, C. S. R.; Coutinho, J. A. P.; Silvestre, A. J. D.; Use of ionic liquids and deep eutectic solvents in polysaccharides dissolution and extraction processes towards sustainable biomass valorization, *Molecules*, 2020, 25, 16, 3652.
- 346.** Naama?amar, A.; Gitman, S.; Shoshana, N.; Bahar, O.; Naor, V.; Zchori?fein, E.; Iasur?kruh, L.; Antimicrobial activity of metabolites secreted by the endophytic bacterium fraterulria defendens, *Plants*, 2020, 9, 72.
- 347.** Nagao, M.; Misu, S.; Hirayama, J.; Otomo, R.; Kamiya, Y.; Magneli-Phase Titanium

Suboxide Nanocrystals as Highly Active Catalysts for Selective Acetalization of Furfural, ACS Applied Materials and Interfaces, 2020, 12, 2, 2539-2547.

348. Nguyen, Q. N. B.; Le, H. A. N.; Ly, P. D.; Phan, H. B.; Tran, P. H.; One-step synthesis of 2, 5-diformylfuran from monosaccharides by using lanthanum(iii) triflate, sulfur, and DMSO, Chemical Communications, 2020, 56, 85, 13005-13008.
349. Nguyen, T.; Kim, Y. J.; Park, S. K.; Lee, K. Y.; Park, J. W.; Cho, J. K.; Shin, S.; Furan-2, 5-and Furan-2, 3-dicarboxylate Esters Derived from Marine Biomass as Plasticizers for Poly(vinyl chloride), ACS Omega, 2020, 5, 1, 197-206.
350. Onaran, G.; Gurel, L.; Argun, H.; Detoxification of waste hand paper towel hydrolysate by activated carbon adsorption, International Journal of Environmental Science and Technology, 2020, 17, 2, 799-808.
351. Onkarappa, S. B.; Bhat, N. S.; Dutta, S.; Preparation of alkyl levulinates from biomass-derived 5-(halomethyl)furfural (X = Cl, Br), furfuryl alcohol, and angelica lactone using silica-supported perchloric acid as a heterogeneous acid catalyst, Biomass Conversion and Biorefinery, 2020, 10, 4, 849-856.
352. Pan, X.; Wu, S.; Yao, D.; Liu, L.; Zhang, L.; Yao, Z.; Pan, Y.; Chang, S.; Li, B.; Efficient biotransformation of 5-hydroxymethylfurfural to 5-hydroxymethyl-2-furancarboxylic acid by a new whole-cell biocatalyst: *Pseudomonas aeruginosa* PC-1, Reaction Chemistry and Engineering, 2020, 5, 8, 1397-1404.
353. Pawar, H. S.; Polymethylaminosiloxane Grafted Transition Metal Catalyst DICAT-V for Chemoselective Aerobic Oxidation of 5-HMF into 2, 5-Diformyl Furan, ChemistrySelect, 2020, 5, 25, 7417-7426.
354. Pawar, H. S.; Purification of 5-Hydroxymethyl Furfural from Side Products of Fructose Dehydration Reaction in a Green Solvent, ChemistrySelect, 2020, 5, 23, 6851-6855.
355. Peddakasu, G. B.; Velisoju, V. K.; Gutta, N.; Medak, S.; Dumpalapally, M.; Akula, V.; Elucidation of surface active sites by formic acid adsorbed IR studies in the hydrogenation of levulinic acid to valeric acid over rare earth metal doped titania supported nickel catalysts, Catalysis Today, 2021, 375, 112-119.
356. Piccirilli, L.; Pinheiro, D. L. J.; Nielsen, M.; Recent progress with pincer transition metal catalysts for sustainability, Catalysts, 2020, 10, 773.
357. Portilla-Zuniga, O. M.; Martinez, J. J.; Casella, M.; Lick, D. I.; Sathicq, A. G.; Luque, R.; Romanelli, G. P.; Etherification of 5-hydroxymethylfurfural using a heteropolyacid supported on a silica matrix, Molecular Catalysis, 2020, 494, 111125.
358. Posmanik, R.; Darzi, R.; Glicksberg, R.; Shabtay, A.; Cohen-Zinder, M.; Hydrothermal conversion of beef cattle manure can enhance energy recovery in confined feedlots, Environmental Science: Water Research and Technology, 2020, 6, 4, 1125-1138.
359. Qi, X.; Zhou, R.; Ai, H. J.; Wu, X. F.; HMF and furfural: Promising platform molecules in

rhodium-catalyzed carbonylation reactions for the synthesis of furfuryl esters and tertiary amides, *Journal of Catalysis*, 2020, 381, 215-221.

360. Qu, Y.; Zhao, Y.; Xiong, S.; Wang, C.; Wang, S.; Zhu, L.; Ma, L.; Conversion of Glucose into 5-Hydroxymethylfurfural and Levulinic Acid Catalyzed by SO₄²⁻/ZrO₂in a Biphasic Solvent System, *Energy and Fuels*, 2020, 34, 9, 11041-11049.
361. Rajesh, R. O.; Godan, T. K.; Sindhu, R.; Pandey, A.; Binod, P.; Bioengineering advancements, innovations and challenges on green synthesis of 2, 5-furan dicarboxylic acid, *Bioengineered*, 2020, 11, 1, 19-38.
362. Reif, P.; Rosenthal, H.; Rose, M.; Biomass-Derived Aromatics by Solid Acid-Catalyzed Aldol Condensation of Alkyl Methyl Ketones, *Advanced Sustainable Systems*, 2020, 4, 1900150.
363. Rezaie, M.; Dinari, M.; Chermahini, A. N.; Saraji, M.; Shahvar, A.; Preparation of kapa carrageenan-based acidic heterogeneous catalyst for conversion of sugars to high-value added materials, *International Journal of Biological Macromolecules*, 2020, 165, 1129-1138.
364. Romeo, I.; Olivito, F.; Tursi, A.; Algieri, V.; Beneduci, A.; Chidichimo, G.; Maiuolo, L.; Sicilia, E.; De Nino, A.; Totally green cellulose conversion into bio-oil and cellulose citrate using molten citric acid in an open system: synthesis, characterization and computational investigation of reaction mechanisms, *RSC Advances*, 2020, 10, 57, 34738-34751.
365. Sajid, M.; Bai, Y.; Liu, D.; Zhao, X.; Organic acid catalyzed production of platform chemical 5-hydroxymethylfurfural from fructose: Process comparison and evaluation based on kinetic modeling, *Arabian Journal of Chemistry*, 2020, 13, 10, 7430-7444.
366. Sarno, M.; Ponticorvo, E.; Ag/graphene electrode for the electrochemical conversion of 5-hydroxymethylfurfural to 2, 5-hexanedione at ambient pressure and temperature, *Chemical Engineering Transactions*, 2020, 80, 157-162.
367. Sayed, M.; Warlin, N.; Hulteberg, C.; Munslow, I.; Lundmark, S.; Pajalic, O.; Tuna, P.; Zhang, B.; Pyo, S. H.; Hatti-Kaul, R.; 5-Hydroxymethylfurfural from fructose: An efficient continuous process in a water-dimethyl carbonate biphasic system with high yield product recovery, *Green Chemistry*, 2020, 22, 16, 5402-5413.
368. Scapin, E.; Rambo, M. K. D.; Viana, G. C. C.; Borges, M. S.; Rambo, M. C. D.; Carneiro, C. A.; Production of Furanic Compounds and Organic Acids from Brazilian Pequi (*Caryocar brasiliensis Camb.*) Residues Using Green Chemistry, *Journal of the Brazilian Chemical Society*, 2020, 31, 7, 1383-1391.
369. Scapin, E.; Rambo, M. K. D.; Viana, G. C. C.; Marasca, N.; Lacerda, G. E.; Rambo, M. C. D.; Fernandes, R. M. N.; Sustainable production of furfural and 5-hidroximetilfurfural from rice husks and soybean peel by using ionic liquid, *Food Science and Technology*, 2020, 40, 83-87.
370. Schade, O. R.; Gaur, A.; Zimina, A.; Saraci, E.; Grunwaldt, J. D.; Mechanistic insights into

the selective oxidation of 5-(hydroxymethyl)furfural over silver-based catalysts, *Catalysis Science and Technology*, 2020, 10, 15, 5036-5047.

371. Schade, O. R.; Stein, F.; Reichenberger, S.; Gaur, A.; Sara?i, E.; Barcikowski, S.; Grunwaldt, J. D.; Selective Aerobic Oxidation of 5-(Hydroxymethyl)furfural over Heterogeneous Silver-Gold Nanoparticle Catalysts, *Advanced Synthesis and Catalysis*, 2020, 362, 24, 5681-5696.
372. Schade, O.; Dolcet, P.; Nefedov, A.; Huang, X.; Saraci, E.; Woll, C.; Grunwaldt, J. D.; The influence of the gold particle size on the catalytic oxidation of 5-(Hydroxymethyl)furfural, *Catalysts*, 2020, 10, 342.
373. Schoppe, H.; Kleine-Mollhoff, P.; Epple, R.; Energy and material flows and carbon footprint assessment concerning the production of HMF and furfural from a cellulosic biomass, *Processes*, 2020, 8, 119.
374. Schroer, G.; Deischter, J.; Zensen, T.; Kraus, J.; Poppler, A. C.; Qi, L.; Scott, S.; Delidovich, I.; Structure-performance correlations of cross-linked boronic acid polymers as adsorbents for recovery of fructose from glucose-fructose mixtures, *Green Chemistry*, 2020, 22, 2, 550-562.
375. Serrano, A.; Carro, J.; Martinez, A. T. Reaction mechanisms and applications of aryl-alcohol oxidase. *Enzymes*. 2020, 47, 167-192.
376. Shen, G.; Andrioletti, B.; Queneau, Y.; Furfural and 5-(hydroxymethyl)furfural: Two pivotal intermediates for bio-based chemistry, *Current Opinion in Green and Sustainable Chemistry*, 2020, 26, 100384.
377. Shen, Y.; A review on hydrothermal carbonization of biomass and plastic wastes to energy products, *Biomass and Bioenergy*, 2020, 134, 105479.
378. Sheng, Y.; Tan, X.; Zhou, X.; Xu, Y.; Bioconversion of 5-Hydroxymethylfurfural (HMF) to 2, 5-Furandicarboxylic Acid (FDCA) by a Native Obligate Aerobic Bacterium, *Acinetobacter calcoaceticus* NL14, *Applied Biochemistry and Biotechnology*, 2020, 192, 2, 455-465.
379. Shinde, S.; Tarade, K.; Mitra, G.; Rode, C.; Integration of Heterogeneous Acid and Base Catalysis for Clean Synthesis of Jet-Fuel Precursor from Carbohydrates, *ChemistrySelect*, 2020, 5, 1, 392-400.
380. Silvianti, F.; Maniar, D.; Boetje, L.; Loos, K. (2020). Green Pathways for the Enzymatic Synthesis of Furan-Based Polyesters and Polyamides. *ACS Symposium Series*. 1373, 3-29.
381. Smink, D.; Kersten, S. R. A.; Schuur, B.; Process development for biomass delignification using deep eutectic solvents. Conceptual design supported by experiments, *Chemical Engineering Research and Design*, 2020, 164, 86-101.
382. Abdulkhani, A.; Siahrang, M.; Zadeh, Z. E.; Hedjazi, S.; Torkameh, S.; Faezipour, M.; Direct catalytic conversion of bagasse fibers to furan building blocks in organic and ionic

383. Altway, S.; Yuan, M.; Pujar, S. C.; Azhar, B.; Tiwikrama, A. H.; De Haan, A. B.; Choline Chloride Urea Effect on Liquid-Liquid Equilibria of 5-Hydroxymethylfurfural-Water-Organic Solvent Systems in the Absence and Presence of Sodium Chloride, Journal of Chemical and Engineering Data, 2021, 66, 12, 4684-4696.
384. Anbu Anjugam Vandarkuzhali, S.; Karthikeyan, G.; Pachamuthu, M. P.; Efficient oxidation of 5-Hydroxymethylfurfural to 2, 5-furandicarboxylic acid over FeNPs@NH₂-SBA-15 catalyst in water, Molecular Catalysis, 2021, 516, 111951.
385. Anchan, H. N.; Dutta, S.; Recent advances in the production and value addition of selected hydrophobic analogs of biomass-derived 5-(hydroxymethyl)furfural, Biomass Conversion and Biorefinery, 2021, 10.1007/s13399-021-01315-1 (x)
386. Antony, F. M.; Pal, D.; Wasewar, K.; Separation of bio-products by liquid-liquid extraction, Physical Sciences Reviews, 2021, 6, 4, 1-21.
387. Averochkin, G. M.; Gordeev, E. G.; Skorobogatko, M. K.; Kucherov, F. A.; Ananikov, V. P.; Systematic Study of Aromatic-Ring-Targeted Cycloadditions of 5-Hydroxymethylfurfural Platform Chemicals, ChemSusChem, 2021, 14, 15, 3110-3123.
388. Barbosa, S. L.; de S. Freitas, M.; dos Santos, W. T. P.; Nelson, D. L.; Klein, S. I.; Clososki, G. C.; Caires, F. J.; Baroni, A. C. M.; Wentz, A. P.; Dehydration of d-fructose to 5-hydroxymethyl-2-furfural in DMSO using a hydrophilic sulfonated silica catalyst in a process promoted by microwave irradiation, Scientific Reports, 2021, 11, 1919.
389. Bhattacharyya, S.; Desir, P.; Prodinger, S.; Lobo, R. F.; Vlachos, D. G.; Improved slit-shaped microseparator and its integration with a microreactor for modular biomanufacturing, Green Chemistry, 2021, 23, 10, 3700-3714, 10.1039/d1gc00642h (x)
390. Bielski, R.; Gryniewicz, G.; Furan platform chemicals beyond fuels and plastics, Green Chemistry, 2021, 23, 19, 7458-7487.
391. Bonrath, W.; Kroon, H.; LГ©tinois, U.; Marty, M.; May, O.; MГјller, M. A.; SchГјtz, J.; WГјstenberg, B.; From Sugars to Nutritional Products вЂ“ Active Ingredients, Chimia, 2021, 75, 9, 757-765.
392. Cacheux, F.; Le Goff, G.; Ouazzani, J.; Bignon, J.; Retailleau, P.; Marinetti, A.; Voituriez, A.; Betzer, J. F.; The Piancatelli rearrangement of non-symmetrical furan-2, 5-dicarbinols for the synthesis of highly functionalized cyclopentenones, Organic Chemistry Frontiers, 2021, 8, 11, 2449-2455.
393. Cardona-Farreny, M.; Lecante, P.; Esvan, J.; Dinoi, C.; Del Rosal, I.; Poteau, R.; Philippot, K.; Axet, M. R.; Bimetallic RuNi nanoparticles as catalysts for upgrading biomass: Metal dilution and solvent effects on selectivity shifts, Green Chemistry, 2021, 23, 21, 8480-8500.
394. Chaillot, D.; Bennici, S.; BrendlГ©, J.; Layered double hydroxides and LDH-derived materials in chosen environmental applications: a review, Environmental Science and

Pollution Research, 2021, 28, 19, 24375-24405.

395. Chandrashekhar, V. G.; Natte, K.; Alenad, A. M.; Alshammari, A. S.; Kreyenschulte, C.; Jagadeesh, R. V.; Reductive Amination, Hydrogenation and Hydrodeoxygenation of 5-Hydroxymethylfurfural using Silica-supported Cobalt- Nanoparticles, ChemCatChem, 2022, 14, e202101234.
396. Chen, D.; Cang, R.; Zhang, Z. D.; Huang, H.; Zhang, Z. G.; Ji, X. J.; Efficient reduction of 5-hydroxymethylfurfural to 2, 5-bis (hydroxymethyl) furan by a fungal whole-cell biocatalyst, Molecular Catalysis, 2021, 500, 111341.
397. Chen, Y.; Yao, X.; Wang, X.; Zhang, X.; Zhou, H.; He, R.; Liu, Q.; Direct use of the solid waste from oxytetracycline fermentation broth to construct Hf-containing catalysts for Meerwein-Ponndorf-Verley reactions, RSC Advances, 2021, 11, 23, 13970-13979.
398. Cho, S.; Gu, L.; In, I. J.; Wu, B.; Lee, T.; Kim, H.; Koo, S.; Ribose conversion with amino acids into pyrrolidine platform chemicals-expeditious synthesis of diverse pyrrole-fused alkaloid compounds, RSC Advances, 2021, 11, 50, 31511-31525.
399. Choudhary, A.; Kumar, V.; Kumar, S.; Majid, I.; Aggarwal, P.; Suri, S.; 5-Hydroxymethylfurfural (HMF) formation, occurrence and potential health concerns: recent developments, Toxin Reviews, 2021, 40, 4, 545-561.
400. Cleveland, M. E.; Mathieu, Y.; Ribeaucourt, D.; Haon, M.; Mulyk, P.; Hein, J. E.; Lafond, M.; Berrin, J. G.; Brumer, H.; A survey of substrate specificity among Auxiliary Activity Family 5 copper radical oxidases, Cellular and Molecular Life Sciences, 2021, 78, 24, 8187-8208.
401. Cleveland, M.; Lafond, M.; Xia, F. R.; Chung, R.; Mulyk, P.; Hein, J. E.; Brumer, H.; Two Fusarium copper radical oxidases with high activity on aryl alcohols, Biotechnology for Biofuels, 2021, 14, 138.
402. Crestani, C. E.; Silva, A. T. C. R.; Bernardo, A.; Costa, C. B. B.; Giulietti, M.; Crystalline fructose production: a conceptual design with experimental data and operating cost analysis, Chemical Engineering Communications, 2022, 209, 7, 869-881.
403. da Rosa, R.; Dambr̄is, B. P.; H̄l̄ehr de Moraes, M.; Grand, L.; Jacolot, M.; Popowycz, F.; Steindel, M.; Schenkel, E. P.; Campos Bernardes, L. S.; Natural-product-inspired design and synthesis of two series of compounds active against Trypanosoma cruzi: Insights into structure-activity relationship, toxicity, and mechanism of action, Bioorganic Chemistry, 2022, 119, 105492
404. Du, Y.; Ma, C.; Yin, Y.; Li, W.; Luo, S.; Liu, S.; Catalytic Performance of Carbon-based Solid Acid H-Al/AC in Glucose to 5-Hydroxymethylfurfural Reaction, Chemistry and Industry of Forest Products, 2021, 41, 4, 62-68.
405. Dutta, S.; Valorization of biomass-derived furfurals: reactivity patterns, synthetic strategies, and applications, Biomass Conversion and Biorefinery, 2021, 10.1007/s13399-021-01924-w (x)

- 406.** El-Nassan, H. B.; Amberlyst 15B®: An Efficient Green Catalyst for the Synthesis of Heterocyclic Compounds, *Russian Journal of Organic Chemistry*, 2021, 57, 7, 1109-1134.
- 407.** Endot, N. A.; Junid, R.; Jamil, M. S. S.; Insight into biomass upgrade: A review on hydrogenation of 5-hydroxymethylfurfural (hmf) to 2, 5-dimethylfuran (dmf), *Molecules*, 2021, 26, 22, 6848.
- 408.** Fang, W.; Riisager, A.; Recent advances in heterogeneous catalytic transfer hydrogenation/hydrogenolysis for valorization of biomass-derived furanic compounds, *Green Chemistry*, 2021, 23, 2, 670-688.
- 409.** Galkin, K. I.; Ananikov, V. P.; Intermolecular diels-alder cycloadditions of furfural-based chemicals from renewable resources: A focus on the regio-and diastereoselectivity in the reaction with alkenes, *International Journal of Molecular Sciences*, 2021, 22, 21, 11856.
- 410.** Guo, J.; Huang, K.; Cao, R.; Zhang, J.; Xu, Y.; Aliphatic extractive effects on acetic acid catalysis of typical agricultural residues to xylo-oligosaccharide and enzymatic hydrolyzability of cellulose, *Biotechnology for Biofuels*, 2021, 14, 97.
- 411.** Guo, W.; Zhang, Z.; Hacking, J.; Heeres, H. J.; Yue, J.; Selective fructose dehydration to 5-hydroxymethylfurfural from a fructose-glucose mixture over a sulfuric acid catalyst in a biphasic system: Experimental study and kinetic modelling, *Chemical Engineering Journal*, 2021, 409, 128182.
- 412.** Hai, T. A. P.; Tessman, M.; Neelakantan, N.; Samoylov, A. A.; Ito, Y.; Rajput, B. S.; Pourahmady, N.; Burkart, M. D.; Renewable polyurethanes from sustainable biological precursors, *Biomacromolecules*, 2021, 22, 5, 1770-1794.
- 413.** Hu, D.; Zhang, M.; Xu, H.; Wang, Y.; Yan, K.; Recent advance on the catalytic system for efficient production of biomass-derived 5-hydroxymethylfurfural, *Renewable and Sustainable Energy Reviews*, 2021, 147, 111253.
- 414.** Hu, H.; Xue, T.; Zhang, Z.; Gan, J.; Chen, L.; Zhang, J.; Qu, F.; Cai, W.; Wang, L.; Direct Conversion of 5-Hydroxymethylfurfural to Furanic Diether by Copper-Loaded Hierarchically Structured ZSM-5 Catalyst in a Fixed-Bed Reactor, *ChemCatChem*, 2021, 13, 15, 3461-3469.
- 415.** Hu, W.; She, J.; Fu, Z.; Yang, B.; Zhang, H.; Jiang, D.; Highly efficient and tunable visible-light-catalytic synthesis of 2, 5-diformylfuran using HBr and molecular oxygen, *RSC Advances*, 2021, 11, 38, 23365-23373.
- 416.** Hu, X.; Ming, C.; Li, Q.; Zhang, L.; Li, C. Z.; Polymerization of sugars/furan model compounds and bio-oil during the acid-catalyzed conversion – A review, *Fuel Processing Technology*, 2021, 222, 106958.
- 417.** Hu, Y.; Li, M.; Gao, Z.; Wang, L.; Zhang, J.; Leaf-derived sulfonated carbon dots: efficient and recoverable catalysts to synthesize 5-hydroxymethylfurfural from fructose, *Materials Today Chemistry*, 2021, 20, 100423.

- 418.** Hu, Y.; Li, M.; Gao, Z.; Wang, L.; Zhang, J.; Waste Polyethylene terephthalate Derived Carbon Dots for Separable Production of 5-Hydroxymethylfurfural at Low Temperature, *Catalysis Letters*, 2021, 151, 2436–2444.
- 419.** Ibrahim, N.; Moussallem, C.; Allain, M.; Segut, O.; Gohier, F.; Frére, P.; Exploring the Electronic Properties of Extended Benzofuran-Cyanovinyl Derivatives Obtained from Lignocellulosic and Carbohydrate Platforms Raw Materials, *ChemPlusChem*, 2021, 86, 3, 475-482.
- 420.** Jiang, J.; Xiao, F.; He, W. M.; Wang, L.; The application of clean production in organic synthesis, *Chinese Chemical Letters*, 2021, 32, 5, 1637-1644.
- 421.** Jin, M.; Yu, L.; Chen, H.; Ma, X.; Cui, K.; Wen, Z.; Ma, Z.; Sang, Y.; Chen, M.; Li, Y.; Base-free selective conversion of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid over a CoO_x-CeO₂ catalyst, *Catalysis Today*, 2021, 367, 2-8.
- 422.** Kandasamy, P.; Gogoi, P.; Venugopalan, A. T.; Raja, T.; A highly efficient and reusable Ru-NaY catalyst for the base free oxidation of 5-Hydroxymethylfurfural to 2, 5-Furandicarboxylic acid, *Catalysis Today*, 2021, 375, 145-154.
- 423.** Kashparova, V. P.; Chernysheva, D. V.; Klushin, V. A.; Andreeva, V. E.; Kravchenko, O. A.; Smirnova, N. V.; Furan monomers and polymers from renewable plant biomass, *Russian Chemical Reviews*, 2021, 90, 6, 750-784.
- 424.** Kirchhecker, S.; Spiegelberg, B.; de Vries, J. G. Homogenous Iridium Catalysts for Biomass Conversion. *Topics in Organometallic Chemistry*. 2021, 69, 341-395.
- 425.** Kucherov, F. A.; Romashov, L. V.; Averochkin, G. M.; Ananikov, V. P.; Biobased C6-Furans in Organic Synthesis and Industry: Cycloaddition Chemistry as a Key Approach to Aromatic Building Blocks, *ACS Sustainable Chemistry and Engineering*, 2021, 9, 8, 3011-3042.
- 426.** Kumar, A.; Srivastava, R.; Rose-like Bi₂WO₆Nanostructure for Visible-Light-Assisted Oxidation of Lignocellulose-Derived 5-Hydroxymethylfurfural and Vanillyl Alcohol, *ACS Applied Nano Materials*, 2021, 4, 9, 9080-9093.
- 427.** Kumar, K.; Khatri, V.; Upadhyayula, S.; Kashyap, H. K.; Cellulose conversion to biofuel precursors using conjugated ionic liquid catalyst: An experimental and DFT study, *Applied Catalysis A: General*, 2021, 610, 117951.
- 428.** Lancien, A.; Wojcieszak, R.; Cuvelier, E.; Duban, M.; Dhulster, P.; Paul, S.; Dumeignil, F.; Froidevaux, R.; Heuson, E.; Hybrid Conversion of 5-Hydroxymethylfurfural to 5-Aminomethyl-2-furancarboxylic acid: Toward New Bio-sourced Polymers, *ChemCatChem*, 2021, 13, 1, 247-259.
- 429.** Le, G. T. T.; Arunaditya, K.; Panichpol, J.; Rodruangnon, T.; Thongratkaew, S.; Chaipojjana, K.; Faungnawakij, K.; Charinpanitkul, T.; Sulfonated magnetic carbon nanoparticles from eucalyptus oil as a green and sustainable catalyst for converting fructose to 5-HMF, *Catalysis Communications*, 2021, 149, 106229.

- 430.** Le, T. H. H.; Vo, T. G.; Chiang, C. Y.; Highly efficient amorphous binary cobalt-cerium metal oxides for selective oxidation of 5-hydroxymethylfurfural to 2, 5-diformylfuran, *Journal of Catalysis*, 2021, 404, 560-569.
- 431.** Ledesma, B.; Juñez, J.; MazarGo, J.; Domine, M.; Beltramone, A.; Bimetallic platinum/iridium modified mesoporous catalysts applied in the hydrogenation of HMF, *Catalysis Today*, 2021, 360, 147-156.
- 432.** Li, C.; Li, Y.; Luo, X.; Li, Z.; Zhang, H.; Li, H.; Yang, S.; Catalytic cascade acetylation-alkylation of biofuran to C17 diesel precursor enabled by a budget acid-switchable catalyst, *Chinese Journal of Chemical Engineering*, 2021, 34, 171-179.
- 433.** Li, N.; Xu, M.; Wang, N.; Shen, Q.; Wang, K.; Zhou, J.; Preparation of 5-hydroxymethylfurfural from cellulose catalyzed by chemical bond anchoring catalyst HfxZr1-xP/SiO_2 , *Reaction Kinetics, Mechanisms and Catalysis*, 2021, 133, 1, 157-171.
- 434.** Li, P.; Zhang, T.; Mushtaq, M. A.; Wu, S.; Xiang, X.; Yan, D.; Research Progress in Organic Synthesis by Means of Photoelectrocatalysis, *Chemical Record*, 2021, 21, 4, 841-857, 10.1002/tcr.202000186 (x)
- 435.** Liu, J.; Wang, S.; Peng, Y.; Zhu, J.; Zhao, W.; Liu, X.; Advances in sustainable thermosetting resins: From renewable feedstock to high performance and recyclability, *Progress in Polymer Science*, 2021, 113, 101353.
- 436.** Macdermid-Watts, K.; Adewakun, E.; Abhi, T. D.; Pradhan, R.; Dutta, A.; Hydrothermal carbonization valorization as an alternative application for corn bio-ethanol by-products, *Journal of Environmental Chemical Engineering*, 2021, 9, 4, 105431.
- 437.** Mahala, S.; Arumugam, S. M.; Kumar, S.; Singh, D.; Sharma, S.; Devi, B.; Yadav, S. K.; Elumalai, S.; Sn Doping on Ta_2O_5 Facilitates Glucose Isomerization for Enriched 5-Hydroxymethylfurfural Production and its True Response Prediction using a Neural Network Model, *ChemCatChem*, 2021, 13, 22, 4787-4798.
- 438.** Mahendran, S.; Srinivasan, V. V.; Karthikeyan, G.; Pachamuthu, M. P.; Selective oxidation of 5-hydroxymethylfurfural to 2, 5-diformylfuran over niobium incorporated MCM-41 catalyst, *Molecular Catalysis*, 2021, 510, 111682.
- 439.** Modak, A.; Mankar, A. R.; Pant, K. K.; Bhaumik, A.; Mesoporous porphyrin-silica nanocomposite as solid acid catalyst for high yield synthesis of HMF in water, *Molecules*, 2021, 26, 9, 2519.
- 440.** Morales, M. V.; Conesa, J. M.; Guerrero-Ruiz, A.; Rodriguez-Ramos, I.; Tunable selectivity of Ni catalysts in the hydrogenation reaction of 5-hydroxymethylfurfural in aqueous media: Role of the carbon supports, *Carbon*, 2021, 182, 265-275.
- 441.** Nasrollahzadeh, M.; Soleimani, F.; Bidgoli, N. S. S.; Nezafat, Z.; Orooji, Y.; Baran, T.; Recent developments in polymer-supported ruthenium nanoparticles/complexes for oxidation reactions, *Journal of Organometallic Chemistry*, 2021, 933, 121658.

- 442.** Nowicki, J.; Stanek, N.; Conversion of selected carbohydrates into furan aldehydes in aqueous media. Effect of cation structure of imidazolium ionic liquids on the selectivity phenomena, *Biomass and Bioenergy*, 2021, 154, 106252.
- 443.** Ontiveros, J. F.; Wang, L.; Chatel, K.; Yue, X.; Tan, J. N.; Ali-Rachedi, F.; Ahmar, M.; Verrier, C.; Fusina, A.; Nardello-Rataj, V.; Queneau, Y.; Design and Properties of a Novel Family of Nonionic Biobased Furanic Hydroxyester and Amide Surfactants, *ACS Sustainable Chemistry and Engineering*, 2021, 9, 50, 16977–16988.
- 444.** Otoni, C. G.; Azeredo, H. M. C.; Mattos, B. D.; Beaumont, M.; Correa, D. S.; Rojas, O. J.; The Food“Materials Nexus: Next Generation Bioplastics and Advanced Materials from Agri-Food Residues, *Advanced Materials*, 2021, 33, 2102520.
- 445.** Padilla, R.; Koranchalil, S.; Nielsen, M.; Homogeneous catalyzed valorization of furanics: A sustainable bridge to fuels and chemicals, *Catalysts*, 2021, 11, 11, 10.3390/catal11111371 (x)
- 446.** Pagare, P. P.; Rastegar, A.; Abdulmalik, O.; Omar, A. M.; Zhang, Y.; Fleischman, A.; Safo, M. K.; Modulating hemoglobin allostery for treatment of sickle cell disease: current progress and intellectual property, *Expert Opinion on Therapeutic Patents*, 2021, 115-130.
- 447.** Paladini, G.; Venuti, V.; Crupi, V.; Majolino, D.; Fiorati, A.; Punta, C.; 2d correlation spectroscopy (2dcos) analysis of temperature-dependent ftir spectra in branched polyethyleneimine/tempo-oxidized cellulose nanofiber xerogels, *Polymers*, 2021, 13, 4, 1-23.
- 448.** Pattnaik, F.; Nanda, S.; Kumar, V.; Naik, S.; Dalai, A. K.; Subcritical water hydrolysis of Phragmites for sugar extraction and catalytic conversion to platform chemicals, *Biomass and Bioenergy*, 2021, 145, 105965.
- 449.** Peddakasu, G. B.; Velisoju, V. K.; Gutta, N.; Medak, S.; Dumpalapally, M.; Akula, V.; Elucidation of surface active sites by formic acid adsorbed IR studies in the hydrogenation of levulinic acid to valeric acid over rare earth metal doped titania supported nickel catalysts, *Catalysis Today*, 2021, 375, 112-119.
- 450.** Peng, Y.; Huang, Y.; Li, T.; Rong, N.; Jiang, H.; Shi, H.; Yang, W.; Radical induced disproportionation of alcohols assisted by iodide under acidic conditions, *Green Chemistry*, 2021, 23, 20, 8108-8115.
- 451.** Phearman, A. S.; Moore, J. M.; Bhagwandin, D. D.; Goldberg, J. M.; Heinekey, D. M.; Goldberg, K. I.; (Hexamethylbenzene)Ru catalysts for the Aldehyde-Water Shift reaction, *Green Chemistry*, 2021, 23, 4, 1609-1615.
- 452.** Qaseem, M. F.; Shaheen, H.; Wu, A. M.; Cell wall hemicellulose for sustainable industrial utilization, *Renewable and Sustainable Energy Reviews*, 2021, 144, 110996.
- 453.** Ra, C. H.; Seo, J. H.; Jeong, G. T.; Kim, S. K.; Evaluation of 2, 3-butanediol production from red seaweed *Gelidium amansii* Hydrolysates using engineered *Saccharomyces cerevisiae*, *Journal of Microbiology and Biotechnology*, 2021, 30, 12, 1912-1918.

- 454.** Rajmohan, R.; Prathyusha, P.; Maheswari, J.; Thimmakondu, V. S.; Vairaprakash, P.; Arumugam, A.; Accessing a key intermediate for sub(oxa)porphyrins from a sustainable raw-material—Cashew apple bagasse, *Industrial Crops and Products*, 2021, 159, 113081.
- 455.** Rapado, P.; Faba, L.; Ordóñez, S.; Influence of delignification and reaction conditions in the aqueous phase transformation of lignocellulosic biomass to platform molecules, *Bioresource Technology*, 2021, 321, 124500.
- 456.** Ravasco, J. M. J. M.; Gomes, R. F. A.; Recent Advances on Diels-Alder-Driven Preparation of Bio-Based Aromatics, *ChemSusChem*, 2021, 14, 15, 3047-3053.
- 457.** Rigo, D.; Polidoro, D.; Perosa, A.; Selva, M.; Diversified upgrading of HMF via acetylation, aldol condensation, carboxymethylation, vinylation and reductive amination reactions, *Molecular Catalysis*, 2021, 514, 111838.
- 458.** Saikia, K.; Rathankumar, A. K.; Kumar, P. S.; Varjani, S.; Nizar, M.; Lenin, R.; George, J.; Vaidyanathan, V. K.; Recent advances in biotransformation of 5-Hydroxymethylfurfural: challenges and future aspects, *Journal of Chemical Technology and Biotechnology*, 2022; 97, 409–419.
- 459.** Sarkar, O.; Katakojwala, R.; Venkata Mohan, S.; Low carbon hydrogen production from a waste-based biorefinery system and environmental sustainability assessment, *Green Chemistry*, 2021, 23, 1, 561-574.
- 460.** Schroer, G.; Toussaint, V.; Bachmann, S.; Poppler, A. C.; Gierlich, C. H.; Delidovich, I.; Functional Phenylboronate Polymers for the Recovery of Diols, Sugar Alcohols, and Saccharides from Aqueous Solution, *ChemSusChem*, 2021, 14, 23, 5207-5215.
- 461.** Sha, J.; Kusema, B. T.; Zhou, W. J.; Yan, Z.; Streiff, S.; Pera-Titus, M.; Single-reactor tandem oxidation-amination process for the synthesis of furan diamines from 5-hydroxymethylfurfural, *Green Chemistry*, 2021, 23, 18, 7093-7099.
- 462.** Shrivhare, A.; Kumar, A.; Srivastava, R.; Metal phosphate catalysts to upgrade lignocellulose biomass into value-added chemicals and biofuels, *Green Chemistry*, 2021, 23, 11, 3818-3841.
- 463.** Silva, W. R.; Matsubara, E. Y.; Rosolen, J. M.; Donate, P. M.; Gunnella, R.; Pd catalysts supported on different hydrophilic or hydrophobic carbonaceous substrate for furfural and 5-(hydroxymethyl)-furfural hydrogenation in water, *Molecular Catalysis*, 2021, 504, 111496.
- 464.** Simoska, O.; Rhodes, Z.; Weliatte, S.; Cabrera-Pardo, J. R.; Gaffney, E. M.; Lim, K.; Minteer, S. D.; Advances in Electrochemical Modification Strategies of 5-Hydroxymethylfurfural, *ChemSusChem*, 2021, 14, 7, 1674-1686.
- 465.** Song, Y.; Waterhouse, G. I. N.; Han, F.; Li, Y.; Ai, S.; CeO₂@N/C@TiO₂ Core-shell Nanosphere Catalyst for the Aerobic Oxidation of 5-Hydroxymethylfurfural to 5-Hydroxymethyl-2-Furancarboxylic Acid, *ChemCatChem*, 2021, 13, 12, 2931-2941.

- 466.** Songtawee, S.; Rungtaweevoranit, B.; Klaysom, C.; Faungnawakij, K.; Tuning Brønsted and Lewis acidity on phosphated titanium dioxides for efficient conversion of glucose to 5-hydroxymethylfurfural, *RSC Advances*, 2021, 11, 47, 29196-29206.
- 467.** Stölzle, K.; Höglsmann, B.; Steinbach, D.; Cao, Z.; Oechsner, H.; Kruse, A.; A biorefinery concept using forced chicory roots for the production of biogas, hydrochar, and platform chemicals, *Biomass Conversion and Biorefinery*, 2021, 11, 5, 1453-1463.
- 468.** Suliman, M. A.; Basheer, C.; Farooq, W.; Cobalt boride/g-C₃N₄ nanosheets-assisted electrocatalytic oxidation of 5-hydroxymethylfurfural into 2, 5-furandicarboxylic acid, *Catalysts*, 2021, 11, 10, 1241.
- 469.** Syafiqah, M. I.; Nueangnoraj, K.; Boonyaratnakalin, S.; The Influence of H₂O₂ on the Photocatalytic Pretreatment of Cellulose for 5-Hydroxymethyl Furfural (5-HMF) Production, *Bulletin of Chemical Reaction Engineering & Catalysis*, 2021, 16, 3, 565-570.
- 470.** Tian, Y.; Zhang, F.; Wang, J.; Cao, L.; Han, Q.; A review on solid acid catalysis for sustainable production of levulinic acid and levulinate esters from biomass derivatives, *Bioresource Technology*, 2021, 342, 125977.
- 471.** Turkin, A.; Eyley, S.; Preegel, G.; Thielemans, W.; Makshina, E.; Sels, B. F.; How Trace Impurities Can Strongly Affect the Hydroconversion of Biobased 5-Hydroxymethylfurfural, *ACS Catalysis*, 2021, 11, 15, 9204-9209.
- 472.** Velasco Calderón, J. C.; Jiang, S.; Mushrif, S. H.; Understanding the Effect of Solvent Environment on the Interaction of Hydronium Ion with Biomass Derived Species: A Molecular Dynamics and Metadynamics Investigation, *ChemPhysChem*, 2021, 22, 21, 2222-2230.
- 473.** Vikanova, K.; Redina, E.; Kapustin, G.; Chernova, M.; Tkachenko, O.; Nissenbaum, V.; Kustov, L.; Advanced Room-Temperature Synthesis of 2, 5-Bis(hydroxymethyl)furan-A Monomer for Biopolymers-From 5-Hydroxymethylfurfural, *ACS Sustainable Chemistry and Engineering*, 2021, 9, 3, 1161-1171.
- 474.** Wang, L.; Chi, Y.; Shu, D.; Weiss-Hortala, E.; Nzhou, A.; Choi, S.; Experimental studies of hydrothermal liquefaction of kitchen waste with H⁺, OH⁻ and Fe³⁺ additives for bio-oil upgrading, *Waste Management and Research*, 2021, 39, 1, 165-173.
- 475.** Wang, W.; Wang, M.; Nitrogen modulated NiMoO₄with enhanced activity for the electrochemical oxidation of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid, *Catalysis Science and Technology*, 2021, 11, 22, 7326-7330.
- 476.** Wanninayake, P.; Rathnayake, M.; Thushara, D.; Gunawardena, S.; Conversion of rice straw into 5-hydroxymethylfurfural: review and comparative process evaluation, *Biomass Conversion and Biorefinery*, 2022, 12, 1013–1047.
- 477.** Wu, J.; Yan, S.; Wang, C.; Lay, C. H.; Wang, X.; Wang, X.; Huo, M.; Fabrication of ordered mesoporous POMs/SiO₂-NH₂ nanofibers for production of DFF from 5-HMF for cellulose wastewater resource recovery, *Chemosphere*, 2021, 277, 130316.

- 478.** Wittenner, S.; Nowak, T.; Zhang, G. R.; Rockstroh, N.; Ghanem, H.; Rosiwal, S.; Brückner, A.; Etzold, B. J. M.; Avoiding Pitfalls in Comparison of Activity and Selectivity of Solid Catalysts for Electrochemical HMF Oxidation, *ChemistryOpen*, 2021, 10, 5, 600-606.
- 479.** Yang, L.; Wang, J.; Wang, Y.; Li, X.; Liu, W.; Zhang, Z.; Xie, X.; Stereoselective Synthesis of cis-2-Ene-1, 4-diones via Aerobic Oxidation of Substituted Furans Catalyzed by ABNO/HNO₃, *Journal of Organic Chemistry*, 2021, 86, 21, 14311-14320.
- 480.** Yang, Q.; Ying, W.; Wen, P.; Zhu, J.; Xu, Y.; Zhang, J.; Delignification of poplar for xylo-oligosaccharides production using lactic acid catalysis, *Bioresource Technology*, 2021, 342, 125943.
- 481.** Yu, X.; Li, M.; Yagoub, A. E. A.; Chen, L.; Zhou, C.; Yan, D.; Switchable (pH driven) aqueous two-phase systems formed by deep eutectic solvents as integrated platforms for production-separation 5-HMF, *Journal of Molecular Liquids*, 2021, 325, 115158.
- 482.** Yue, X.; Verrier, C.; Ahmar, M.; Queneau, Y.; Reactivity of secondary N-alkyl acrylamides in Morita-Baylis-Hillman reactions, *Comptes Rendus Chimie*, 2021, 24, 2, 319-330.
- 483.** Zhang, J.; Jia, W.; Sun, Y.; Yang, S.; Tang, X.; Zeng, X.; Lin, L.; An efficient approach to synthesizing 2, 5-bis(: N -methyl-aminomethyl)furan from 5-hydroxymethylfurfural via 2, 5-bis(N -methyl-iminomethyl)furan using a two-step reaction in one pot, *Green Chemistry*, 2021, 23, 15, 5656-5664.
- 484.** Zhang, R.; Jiang, S.; Rao, Y.; Chen, S.; Yue, Q.; Kang, Y.; Electrochemical biomass upgrading on CoOOH nanosheets in a hybrid water electrolyzer, *Green Chemistry*, 2021, 23, 6, 2525-2530.
- 485.** Zhang, T.; Hu, Y.; Huai, L.; Gao, Z.; Zhang, J.; Facile synthesis and isolation of 5-hydroxymethylfurfural from diphenyl sulfoxide, *Green Chemistry*, 2021, 23, 9, 3241-3245.
- 486.** Zhong, Y.; Ren, R. Q.; Qin, L.; Wang, J. B.; Peng, Y. Y.; Li, Q.; Fan, Y. M.; Electrodeposition of hybrid nanosheet-structured NiCo₂O₄on carbon fiber paper as a non-noble electrocatalyst for efficient electrooxidation of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid, *New Journal of Chemistry*, 2021, 45, 25, 11213-11221.
- 487.** Zhou, Y.; Shao, Y.; Zhou, D.; Meng, Y.; Shen, D.; Long, Y.; Effect of mechano-chemical pretreatment on valorizing plant waste for 5-hydroxymethylfurfural under microwave hydrothermal treatment, *Renewable Energy*, 2021, 180, 536-543.
- 488.** Zhou, Y.; Wu, S.; Bornscheuer, U. T.; Recent advances in (chemo)enzymatic cascades for upgrading bio-based resources, *Chemical Communications*, 2021, 57, 82, 10661-10674.
- 489.** Zunita, M.; Wahyuningrum, D.; Buchari; Bundjali, B.; Wenten, I. G.; Boopathy, R.; Conversion of glucose to 5-hydroxymethylfurfural, levulinic acid, and formic acid in 1, 3-dibutyl-2-(2-butoxyphenyl)-4, 5-diphenylimidazolium iodide-based ionic liquid, *Applied Sciences (Switzerland)*, 2021, 11, 3, 1-11.

Kurteva, V., Simeonov, S., Stoilova-Disheva, M.. Symmetrical acyclic aryl aldaazines with antibacterial and antifungal activity. Pharmacology and Pharmacy, 2011, 2, 1-9.

IIumupa ce 6:

490. Sumran, G.; Aggarwal, R.; Hooda, M.; Sanz, D.; Claramunt, R. M.; Unusual synthesis of azines and their oxidative degradation to carboxylic acid using iodobenzene diacetate, Synthetic Communications, 2018, 48, 439-446.
491. Belghiti, M. E.; Mihit, M.; Mahsoune, A.; Elmelouky, A.; Mghaiouini, R.; Barhoumi, A.; Dafali, A.; Bakasse, M.; El Mhammedi, M. A.; Abdennouri, M.; Studies of inhibition effect “E & Z” configurations of hydrazine derivatives on mild steel surface in phosphoric acid, Journal of Materials Research and Technology, 2019, 8, 6336-6353.
492. Chourasiya, S. S.; Kathuria, D.; Wani, A. A.; Bharatam, P. V.; Azines: synthesis, structure, electronic structure and their applications, Organic and Biomolecular Chemistry, 2019, 17, 8486-8521.
493. de Alcantara Campos, W. R.; de Souza, D. C. M.; Galvão Guimarães, D.; dos Anjos Santos, V. L.; de Assis Gonsalves, A.; Melo Araújo, C. R.; Mechanochemical synthesis of symmetric acyclic azines and determination of the UVB solar protection factor in vitro (Síntese mecanoquímica de azinas acíclicas simétricas e determinação do fator de proteção solar uvb in vitro), Química Nova, 2019, 42, 305-312.
494. Figueiredo, A. S.; Queiroz, J. E.; Dias, L. D.; Vidal, H. D. A.; Machado, I. V.; Verde, G. M. V.; Aquino, G. L. B.; Synthesis and anticholinesterase activity evaluation of asymmetric azines, Pharmaceutical Chemistry Journal, 2019, 53, 544-549.
495. Ganesan, G.; Dasgupta, S.; Kotwal, N. K.; Ultrasound assisted synthesis, molecular docking studies and in vitro biological activity of azine derivatives as potential antifungal agents, International Journal of Innovative Science and Research Technology, 2019, 4, 686-688.
496. Ganesan, G.; Kotwal, N. K.; Dasgupta, S.; Comparative study of antimicrobial activities of azines and 1, 4-diazabutadienes to establish the pharmacophore in the lead, International Journal of Life Sciences Research, 2019, 7, 279-282.
497. Shiekh, B. A.; Kaur, D.; Godara, S. K.; Unprecedented synthesis of symmetrical azines from alcohols and hydrazine hydrate using nickel based NNN-pincer catalyst: An experimental and computational study, Catalysis Communications, 2019, 124, 19-23.
498. Ganga, M.; Sankaran, K. R.; Synthesis, spectral characterization, DFT, molecular docking and biological evaluation of some newly synthesized asymmetrical azines of 3, 5-dimethoxy-4-hydroxy benzaldehyde, Chemical Data Collections, 2020, 28, 100475, 14 pp.
499. Khidre, R. E.; Mohamed, H. A.; Kariuki, B. M.; El-Hiti, G. A.; Facile, mild and efficient synthesis of azines using phosphonic dihydrazide, Phosphorus Sulfur and Silicon and the Related Elements, 2020, 195, 29-36.

- 500.** Saranya, S.; Ramesh, R.; Sémeril, D.; Non-pincer-type arene Ru(II) catalysts for the direct synthesis of azines from alcohols and hydrazine under aerobic conditions, *Organometallics*, 2020, 39, 3194-3201.
- 501.** Abdel-Galil, E.; Arab, A. M.; Afsah, E. M.; Synthesis and biological activity evaluation of some new mixed azines appended tetrahydro-1, 2, 4-triazines, *Synthetic Communications*, 2021, 51, 1373-1383.
- 502.** Driouech, A.; Boutoumi, H.; Antimicrobial activity of symmetrical azines derivatives from essential oils rich in aldehydes, *Malaysian Journal of Biochemistry and Molecular Biology*, 2021, 2, 17-27.
- 503.** Karimian, S.; Kazemi, F.; Attarroshan, M.; Gholampour, M.; Hemmati, S.; Sakhteman, A.; Behzadipour, Y.; Kabiri, M.; Iraji, A.; Khoshneviszadeh, M.; Design, synthesis, and biological evaluation of symmetrical azine derivatives as novel tyrosinase inhibitors, *BMC Chemistry*, 2021, 15, 54, 11.
- 504.** Ristić, M.; Dekić, B.; Radulović, N.; Aksić, M.; Synthesis, complete assignment of 1H- and 13C-NMR spectra and antioxidant activity of new azine derivative bearing coumarin moiety, *Bulletin of Natural Sciences Research*, 2021, 11, 9-16.
- 505.** Ристић, М. Н.; Мешовити азини 3-ацетил-4- хидроксикумарина и (хетеро)арил-алдехида: синтеза, спектрална карактеризација и фармаколошка активност, 2021, Универзитет У Приштини, Kosovska Mitrovica, Kosovo.

Simeonov, S.P., Coelho, J.A.S., Afonso, C.A.M.. An Integrated Approach for the Production and Isolation of 5-Hydroxymethylfurfural from Carbohydrates. *ChemSusChem*, 2012, 5, 1388 – 1391.

Измита се в:

- 506.** Altway, S.; Pujar, S. C.; de Haan, A. B. Liquid-liquid equilibria of ternary and quaternary systems involving 5-hydroxymethylfurfural, water, organic solvents, and salts at 313.15 K and atmospheric pressure. *Fluid Phase Equilibria*, 2018, 475, 100-110.
- 507.** Galaverna, R.; Breitkreitz, M. C.; Pastre, J. C. Conversion of d -Fructose to 5-(Hydroxymethyl)furfural: Evaluating Batch and Continuous Flow Conditions by Design of Experiments and In-Line FTIR Monitoring. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 4220-4230.
- 508.** Lăcătuș, M. A.; Bencze, L. C.; Toşa, M. I.; Paizs, C.; Irimie, F. D. Eco-Friendly Enzymatic Production of 2, 5-Bis(hydroxymethyl)furan Fatty Acid Diesters, Potential Biodiesel Additives. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 11353-11359.
- 509.** Mika, L. T.; Cséfalvay, E.; Németh, Á. Catalytic Conversion of Carbohydrates to Initial Platform Chemicals: Chemistry and Sustainability. *Chemical Reviews*, 2018, 118, 505-613.
- 510.** Musolino, M.; Andraos, J.; Aricò, F. An Easy Scalable Approach to HMF Employing DMC as Reaction Media: Reaction Optimization and Comparative Environmental Assessment.

ChemistrySelect, 2018, 3, 2359-2365.

- 511.** Teles, J. H. Across the Board: J. Henrique Teles. ChemSusChem, 2019, 12, 338–339.
- 512.** Feng, Y.; Zuo, M.; Wang, T.; Jia, W.; Zhao, X.; Zeng, X.; Sun, Y.; Tang, X.; Lei, T.; Lin, L.; Efficient synthesis of glucose into 5-hydroxymethylfurfural with SO₄²⁻/ZrO₂ modified H⁺ zeolites in different solvent systems, Journal of the Taiwan Institute of Chemical Engineers, 2019, 96, 431-438.
- 513.** Li, Q.; Wang, H.; Tian, Z.; Weng, Y.; Wang, C.; Ma, J.; Zhu, C.; Li, W.; Liu, Q.; Ma, L.; Selective oxidation of 5-hydroxymethylfurfural to 2, 5-furandicarboxylic acid over Au/CeO₂ catalysts: The morphology effect of CeO₂, Catalysis Science and Technology, 2019, 9, 7, 1570-1580.
- 514.** Parihar, A.; Bhattacharya, S.; Cellulose fast pyrolysis for platform chemicals: assessment of potential targets and suitable reactor technology, Biofuels, Bioproducts and Biorefining, 2020, 14, 446–468.
- 515.** Portillo Perez, G.; Mukherjee, A.; Dumont, M. J.; Insights into HMF catalysis, Journal of Industrial and Engineering Chemistry, 2019, 70, 1-34.
- 516.** Teles, J. H.; Across the Board: J. Henrique Teles, ChemSusChem, 2019, 12, 1, 338-339.
- 517.** de Melo, F. C.; Bariviera, W.; Zanchet, L.; de Souza, R. F.; de Souza, M. O.; C10MI·CF₃SO₃: a hydrophobic ionic liquid medium for the production of HMF from sugars avoiding the use of organic solvent, Biomass Conversion and Biorefinery, 2020, 10, 2, 611-618.
- 518.** Gerardy, R.; Debecker, D. P.; Estager, J.; Luis, P.; Monbaliu, J. C. M.; Continuous Flow Upgrading of Selected C₂-C₆Platform Chemicals Derived from Biomass, Chemical Reviews, 2020, 120, 15, 7219-7347.
- 519.** Hu, L.; Jiang, Y.; Wu, Z.; Wang, X.; He, A.; Xu, J.; Xu, J.; State-of-the-art advances and perspectives in the separation of biomass-derived 5-hydroxymethylfurfural, Journal of Cleaner Production, 2020, 276, 124219.
- 520.** Istasse, T.; Lemaur, V.; Debroux, G.; Bockstal, L.; Lazzaroni, R.; Richel, A.; Monosaccharides Dehydration Assisted by Formation of Borate Esters of ?-Hydroxyacids in Choline Chloride-Based Low Melting Mixtures, Frontiers in Chemistry, 2020, 8, 569.
- 521.** Istasse, T.; Richel, A.; Mechanistic aspects of saccharide dehydration to furan derivatives for reaction media design, RSC Advances, 2020, 10, 40, 23720-23742.
- 522.** Lacatus, M. A.; Dudu, A. I.; Bencze, L. C.; Katona, G.; Irimie, F. D.; Paizs, C.; Tosa, M. I.; Solvent-Free Biocatalytic Synthesis of 2, 5-bis-(Hydroxymethyl)Furan Fatty Acid Diesters from Renewable Resources, ACS Sustainable Chemistry and Engineering, 2020, 8, 3, 1611-1617.
- 523.** Lin, C.; Wu, H.; Wang, J.; Huang, J.; Cao, F.; Zhuang, W.; Lu, Y.; Chen, J.; Jia, H.;

Ouyang, P.; Preparation of 5-Hydroxymethylfurfural from High Fructose Corn Syrup Using Organic Weak Acid in Situ as Catalyst, Industrial and Engineering Chemistry Research, 2020, 59, 10, 4358-4366.

524. Parihar, A.; Bhattacharya, S.; Cellulose fast pyrolysis for platform chemicals: assessment of potential targets and suitable reactor technology, Biofuels, Bioproducts and Biorefining, 2020, 14, 2, 446-468.
525. Xu, C.; Paone, E.; Rodriguez-Padron, D.; Luque, R.; Mauriello, F.; Recent catalytic routes for the preparation and the upgrading of biomass derived furfural and 5-hydroxymethylfurfural, Chemical Society Reviews, 2020, 49, 13, 4273-4306.
526. Zhu, L.; Fu, X.; Hu, Y.; Hu, C.; Controlling the Reaction Networks for Efficient Conversion of Glucose into 5-Hydroxymethylfurfural, ChemSusChem, 2020, 13, 18, 4812-4832.
527. Altway, S.; Yuan, M.; Pujar, S. C.; Azhar, B.; Tiwikrama, A. H.; De Haan, A. B.; Choline Chloride Urea Effect on Liquid-Liquid Equilibria of 5-Hydroxymethylfurfural-Water-Organic Solvent Systems in the Absence and Presence of Sodium Chloride, Journal of Chemical and Engineering Data, 2021, 66, 12, 4684-4696.
528. Averochkin, G. M.; Gordeev, E. G.; Skorobogatko, M. K.; Kucherov, F. A.; Ananikov, V. P.; Systematic Study of Aromatic-Ring-Targeted Cycloadditions of 5-Hydroxymethylfurfural Platform Chemicals, ChemSusChem, 2021, 14, 15, 3110-3123.
529. Chen, G.; Sun, Q.; Xu, J.; Zheng, L.; Rong, J.; Zong, B.; Sulfonic Derivatives as Recyclable Acid Catalysts in the Dehydration of Fructose to 5-Hydroxymethylfurfural in Biphasic Solvent Systems, ACS Omega, 2021, 6, 10, 6798-6809.
530. He, W.; Zhang, C.; Zhang, W.; Zhu, Y.; Fang, Z.; Zhao, L.; Guo, K.; The integration of catalyst design and process intensification in the efficient synthesis of 5-hydroxymethyl-2-furancarboxylic acid from fructose, Chemical Engineering Science, 2021, 245.
531. Rao, K. T. V.; Hu, Y.; Yuan, Z.; Zhang, Y.; Xu, C. C.; Nitrogen-doped carbon: A metal-free catalyst for selective oxidation of crude 5-hydroxymethylfurfural obtained from high fructose corn syrup (HFCS-90) to 2, 5-furandicarboxylic acid (FDCA), Chemical Engineering Journal, 2021, 404, 127063.
532. Souzanchi, S.; Nazari, L.; Rao, K. T. V.; Yuan, Z.; Tan, Z.; Xu, C. C.; Development of a continuous-flow tubular reactor for synthesis of 5-hydroxymethylfurfural from fructose using heterogeneous solid acid catalysts in biphasic reaction medium, New Journal of Chemistry, 2021, 45, 19, 8479-8491.
533. Souzanchi, S.; Nazari, L.; Venkateswara Rao, K. T.; Yuan, Z.; Tan, Z.; Charles Xu, C.; Catalytic dehydration of glucose to 5-HMF using heterogeneous solid catalysts in a biphasic continuous-flow tubular reactor, Journal of Industrial and Engineering Chemistry, 2021, 101, 214-226.

Albo, J., Santos, E., Neves, L.A., **Simeonov, S.P.**, Afonso, C.A.M., Irabien, A.. Separation performance of CO₂ through Supported Magnetic Ionic Liquid Membranes (SMILMs). *Separation and Purification Technology*, 97, Elsevier, 2012, ISSN:1383-5866, DOI:10.1016/j.seppur.2012.01.034, 26-33. SJR (Scopus):1.171, JCR-IF (Web of Science):3.091 (x)

IHumupa ce 6:

534. Abdollahi, S.; Mortaheb, H. R.; Ghadimi, A.; Esmaeili, M. Improvement in separation performance of Matrimid®5218 with encapsulated [Emim][Tf₂N] in a heterogeneous structure: CO₂/CH₄ separation. *Journal of Membrane Science*, 2018, 557, 38-48.
535. Cheng, K. L.; Yuan, W. L.; He, L.; Tang, N.; Jian, H. M.; Zhao, Y.; Qin, S.; Tao, G. H. Fluorescigenic Magnetofluids Based on Gadolinium, Terbium, and Dysprosium-Containing Imidazolium Salts. *Inorganic Chemistry* 2018, 57, 6376-6390.
536. Ebadi Amooghin, A.; Moftakhar Sharifzadeh, M. M.; Zamani Pedram, M. Rigorous modeling of gas permeation behavior in facilitated transport membranes (FTMs); evaluation of carrier saturation effects and double-reaction mechanism. *Greenhouse Gases: Science and Technology*, 2018, 8, 429-443.
537. He, M.; Liu, S.; Bai, L.; Liu, X. Propane/propylene separation and CO₂ capture in magnetic ionic liquid [bmim][FeCl₄]. *Chemical Engineering Research and Design*, 2018, 137, 186-193.
538. Lage-Estebanez, I.; Olmo, L. D.; López, R.; García de la Vega, J. M. Molecular modeling and physicochemical properties of 1-alkyl-3-methylimidazolium-FeX₄ and -Fe₂X₇ (X = Cl and Br) magnetic ionic liquids. *Journal of Molecular Liquids*, 2018, 256, 175-182.
539. Mesbah, M.; Shahsavari, S.; Soroush, E.; Rahaei, N.; Rezakazemi, M. Accurate prediction of miscibility of CO₂ and supercritical CO₂ in ionic liquids using machine learning. *Journal of CO₂ Utilization*, 2018, 25, 99-107.
540. Rynkowska, E.; Fatyeyeva, K.; Kujawski, W. Application of polymer-based membranes containing ionic liquids in membrane separation processes: A critical review. *Reviews in Chemical Engineering*, 2018, 34, 341-363.
541. Safarov, J.; Sperlich, C.; Namazova, A.; Aliyev, A.; Tuma, D.; Shahverdiyev, A.; Hassel, E. Carbon dioxide solubility in 1-butyl-3-methylimidazolium tetrafluoroborate and 1-butyl-3-methylimidazolium tetrachloroferrate over an extended range of temperature and pressure. *Fluid Phase Equilibria*, 2018, 467, 45-60.
542. Wang, H.; Gong, R.; Qian, X. Preparation and characterization of TiO₂/g-C₃N₄/PVDF composite membrane with enhanced physical properties. *Membranes*, 2018, 8, 1, 14.
543. Zareiekordshouli, F.; Lashanizadehgan, A.; Darvishi, P. Experimental and theoretical study of CO₂ solubility under high pressure conditions in the ionic liquid 1-ethyl-3-methylimidazolium acetate. *Journal of Supercritical Fluids*, 2018, 133, 195-210.

- 544.** Ahmad, N. A.; Leo, C. P.; Ahmad, A. L.; Nur Izwanne, M.; Swelling reduction of polyvinylidenefluoride hollow fiber membrane incorporated with silicoaluminophosphate-34 zeotype filler for membrane gas absorption, *Separation and Purification Technology*, 2019, 212, 941-951.
- 545.** Saha, A.; Payra, S.; Asatkar, A.; Patel, A. R.; Banerjee, S.; [AcMIM]FeCl₄: A magnetically separable organocatalyst for the clean synthesis of tetrahydrobenzo[b]pyran derivatives, *Current Organocatalysis*, 2019, 6, 2, 177-182.
- 546.** Saqib, S.; Rafiq, S.; Chawla, M.; Saeed, M.; Muhammad, N.; Khurram, S.; Majeed, K.; Khan, A. L.; Ghauri, M.; Jamil, F.; Aslam, M.; Facile CO₂ Separation in Composite Membranes, *Chemical Engineering and Technology*, 2019, 42, 1, 30-44.
- 547.** Torabi, M.; Yarie, M.; Zolfigol, M. A.; Azizian, S.; Magnetic phosphonium ionic liquid: Application as a novel dual role acidic catalyst for synthesis of 2'-aminobenzothiazolomethylnaphthols and amidoalkyl naphthols, *Research on Chemical Intermediates*, 2020, 46, 891-907.
- 548.** You, J.; Guo, Y.; Large magnetic entropy change in MnNiGe 1-x Ce x melt-spun ribbons with tunable magneto-structural phase transition temperature, *Materials Letters*, 2019, 239, 172-175.
- 549.** Daneshvar, A.; Moosavi, M.; Sabzyan, H.; A molecular dynamics study on magnetic imidazolium-based ionic liquids: The effect of an external magnetic field, *Physical Chemistry Chemical Physics*, 2020, 22, 23, 13070-13083.
- 550.** Elwan, H. A.; Morshedy, A. S.; El Naggar, A. M. A.; Highly Efficient Visible-Light-Induced Photocatalytic Hydrogen Production via Water Splitting using FeCl₃-Based Ionic Liquids as Homogeneous Photocatalysts, *ChemSusChem*, 2020, 13, 24, 6602-6612.
- 551.** Jalili, V.; Barkhordari, A.; Ghiasvand, A.; Liquid-phase microextraction of polycyclic aromatic hydrocarbons: A review, *Reviews in Analytical Chemistry*, 2020, 39, 1, 1-19.
- 552.** Mukhtar, A.; Saqib, S.; Mellon, N. B.; Babar, M.; Rafiq, S.; Ullah, S.; Bustam, M. A.; Al-Sehemi, A. G.; Muhammad, N.; Chawla, M.; CO₂ capturing, thermo-kinetic principles, synthesis and amine functionalization of covalent organic polymers for CO₂ separation from natural gas: A review, *Journal of Natural Gas Science and Engineering*, 2020, 77, 103203.
- 553.** Torabi, M.; Yarie, M.; Zolfigol, M. A.; Azizian, S.; Magnetic phosphonium ionic liquid: Application as a novel dual role acidic catalyst for synthesis of 2'-aminobenzothiazolomethylnaphthols and amidoalkyl naphthols, *Research on Chemical Intermediates*, 2020, 46, 1, 891-907.
- 554.** Zhao, R.; Wu, H.; Yang, L.; Ren, Y.; Liu, Y.; Qu, Z.; Wu, Y.; Cao, L.; Chen, Z.; Jiang, Z.; Modification of covalent organic frameworks with dual functions ionic liquids for membrane-based biogas upgrading, *Journal of Membrane Science*, 2020, 600, 117841.
- 555.** Daneshvar, A.; Moosavi, M.; Molecular dynamics simulation of extractive desulfurization

of diesel oil model using magnetic ionic liquids, *Fluid Phase Equilibria*, 2021, 548, 113189.

- 556.** González-Veloso, I.; Figueiredo, N. M.; Cordeiro, M. N. D. S.; Unravelling the interactions of magnetic ionic liquids by energy decomposition schemes: Towards a transferable polarizable force field, *Molecules*, 2021, 26, 18, 5529.
- 557.** Nematolahi, K.; Salehi, E.; Ebadi Amooghin, A.; Sanaeepur, H.; CO₂ separation of a novel Ultem-based mixed matrix membrane incorporated with Ni²⁺-exchanged zeolite X, *Greenhouse Gases: Science and Technology*, 2022, 12, 1, 48-66.
- 558.** Sarkar, R.; Kundu, T. K.; Density functional theory-based analyses on selective gas separation by OI-PVDF-supported ionic liquid membranes, *Journal of Molecular Graphics and Modelling*, 2021, 108, 108004.
- 559.** Wan, X.; Wan, T.; Cao, C.; Tang, C.; Xue, Y.; Yan, Y.; Li, Z.; Ye, Z.; Peng, X.; Accelerating CO₂ transport through nanoconfined magnetic ionic liquid in laminated BN membrane, *Chemical Engineering Journal*, 2021, 423, 130309.
- 560.** Yu, X.; Xia, Z.; Zhao, T.; Yuan, X.; Ren, L.; Pyrene-Enhanced Ferromagnetic Interaction in a FeCl₄-Based Poly(ionic liquid)s Organic Magnet, *Macromolecules*, 2021, 54, 9, 4227-4235.
- 561.** Zunita, M.; Hastuti, R.; Alamsyah, A.; Khoiruddin, K.; Wenten, I. G.; Ionic Liquid Membrane for Carbon Capture and Separation, *Separation and Purification Reviews*, 2021, 261-280.

Zakrzewska, M.E., Rosatella, A.A., Svilen, S.P., Afonso, C.A.M., Najdanovic-Visak, V., Nunes da Ponte, M.. Solubility of carbon dioxide in ammonium based CO₂-induced ionic liquids. *Fluid Phase Equilibria*, 2013, 354, 19-23.

IIumupa ce 6:

- 562.** Paternò, A.; Bonaccorso, C.; Fortuna, C. G.; Musumarra, G.; Scirè, S. Data-Driven Modelling of Gas Solubility in Ionic Liquids Using Principal Properties as Orthogonal Descriptors. *ChemistrySelect*, 2018, 3, 2181-2184.
- 563.** Tang, X.; Xu, Y.; Zhu, X.; Lu, Y. Changes in microstructure of two ammonium-based protic ionic liquids proved by in situ variable-temperature ¹H NMR spectroscopy: influence of anion. *Magnetic Resonance in Chemistry*, 2018, 56, 73-79.
- 564.** Sardar, S., A. Mumtaz, M. Yasinzai and C. D. Wilfred; Synthesis, thermophysical properties and CO₂ sorption of imidazolium, thiazolium, iminium and morpholinium-based protic ionic liquids paired with 2-acrylamido-2-methyl-1-propanesulfonate anion: *Journal of Molecular Liquids*, 2020, 297, 111843.
- 565.** Cichowska-Kopczynska, I.; Aranowski, R.; Effectiveness of toluene separation from gas phase using supported ammonium ionic liquid membrane, *Chemical Engineering Science*, 2020, 219, 115605.

- 566.** Ormazabal, S.; Villarroel, E.; Tapia, R. A.; Romero, J.; Quijada-Maldonado, E.; Supercritical carbon dioxide solubility in hydrophobic ionic liquid mixtures: Experimental determination and thermodynamic modeling, *Fluid Phase Equilibria*, 2020, 517, 112616.
- 567.** Perez, E.; de Pablo, L.; Segovia, J. J.; Moreau, A.; Sanchez, F. A.; Pereda, S.; Bermejo, M. D.; Solubility of CO₂ in three cellulose-dissolving ionic liquids, *AIChE Journal*, 2020, 66, e16228.
- 568.** Sardar, S.; Mumtaz, A.; Taneez, M.; Yasinzai, M.; Irshad, M. I.; Leveque, J. M.; Effect of physicochemical properties of ammonium-based ionic liquids on CO₂ capturing: An insight into structure-activity relationship, *Fluid Phase Equilibria*, 2020, 510, 112484

Simeonov, S.P., Afonso, C.A.M.. Batch and Flow Synthesis of 5-Hydroxymethylfurfural (HMF) from Fructose as a Bioplatform Intermediate: An Experiment for the Organic or Analytical Laboratory. *Journal of Chemical Education*, 2013, 90, 10, 1373–1375.

I lumupa ce 6:

- 569.** Chen, G.; Wu, L.; Fan, H.; Li, B. G. Highly efficient two-step synthesis of 2, 5-furandicarboxylic acid from fructose without 5-hydroxymethylfurfural (hmf) separation: In situ oxidation of hmf in alkaline aqueous H₂O/DMSO mixed solvent under mild conditions. *Industrial and Engineering Chemistry Research*, 2018, 57, 16172-16181.
- 570.** de Mello, M. D.; Tsapatsis, M. Selective Glucose-to-Fructose Isomerization over Modified Zirconium UiO-66 in Alcohol Media. *ChemCatChem*, 2018, 10, 2417-2423.
- 571.** Galaverna, R.; Breitkreitz, M. C.; Pastre, J. C. Conversion of d -Fructose to 5-(Hydroxymethyl)furfural: Evaluating Batch and Continuous Flow Conditions by Design of Experiments and In-Line FTIR Monitoring. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 4220-4230.
- 572.** Kairouz, V.; Collins, S. K. Continuous Flow Science in an Undergraduate Teaching Laboratory: Bleach-Mediated Oxidation in a Biphasic System. *Journal of Chemical Education*, 2018, 95, 1069-1072.
- 573.** Koviach-Côté, J.; Pirinelli, A. L. Incorporating Carbohydrates into Laboratory Curricula. *Chemical Reviews*, 2018, 118, 7986-8004.
- 574.** Leibfarth, F. A.; Russell, M. G.; Langley, D. M.; Seo, H.; Kelly, L. P.; Carney, D. W.; Sello, J. K.; Jamison, T. F. Continuous-Flow Chemistry in Undergraduate Education: Sustainable Conversion of Reclaimed Vegetable Oil into Biodiesel. *Journal of Chemical Education*, 2018, 95, 1371-1375.
- 575.** Muthusamy, K.; Lalitha, K.; Prasad, Y. S.; Thamizhanban, A.; Sridharan, V.; Maheswari, C. U.; Nagarajan, S. Lipase-Catalyzed Synthesis of Furan-Based Oligoesters and their Self-Assembly-Assisted Polymerization. *ChemSusChem*, 2018, 11, 2453-2463.
- 576.** Santandrea, J.; Kairouz, V.; Collins, S. K. Continuous Flow Science in an Undergraduate

Teaching Laboratory: Photocatalytic Thiol-Ene Reaction Using Visible Light. *Journal of Chemical Education*, 2018, 95, 1073-1077.

- 577.** Tacacima, J.; Derenzo, S.; Poco, J. G. R. Synthesis of HMF from fructose using Purolite® strong acid catalyst: Comparison between BTR and PBR reactor type for kinetics data acquisition. *Molecular Catalysis*, 2018, 458, 180-188.
- 578.** Zhou, H.; Zhan, W.; Wang, L.; Guo, L.; Liu, Y. Making Sustainable Biofuels and Sunscreen from Corncobs to Introduce Students to Integrated Biorefinery Concepts and Techniques. *Journal of Chemical Education*, 2018, 95, 1376-1380.
- 579.** Brandão, P., M. Pineiro and T. M. V. D. Pinho e Melo; Flow Chemistry: Towards A More Sustainable Heterocyclic Synthesis: *European Journal of Organic Chemistry*, 2019, 2019, 43, 7188-7217.
- 580.** Pfab, E., L. Filiciotto and R. Luque; The Dark Side of Biomass Valorization: A Laboratory Experiment to Understand Humin Formation, *Catalysis, and Green Chemistry: Journal of Chemical Education*, 2019, 96, 12, 3030-3037.
- 581.** Rajmohan, R., P. Nisha and P. Vairaprakash; 5-Hydroxymethylfurfural-Derived Boron-Dipyrromethene Immobilized on Resin Support as a Sustainable Catalyst for C-H Arylation of Heterocycles: *ACS Omega*, 2019, 4, 11, 14458–14465.
- 582.** Volpe, K. and E. E. Podlesny; Modernization of a Photochemical Reaction for the Undergraduate Laboratory: Continuous Flow Photopinacol Coupling: *Journal of Chemical Education*, 2020, 97, 2, 586–591.
- 583.** Hu, L.; Wu, Z.; Jiang, Y.; Wang, X.; He, A.; Song, J.; Xu, J.; Zhou, S.; Zhao, Y.; Xu, J.; Recent advances in catalytic and autocatalytic production of biomass-derived 5-hydroxymethylfurfural, *Renewable and Sustainable Energy Reviews*, 2020, 134, 110317.
- 584.** Volpe, K.; Podlesny, E. E.; Modernization of a Photochemical Reaction for the Undergraduate Laboratory: Continuous Flow Photopinacol Coupling, *Journal of Chemical Education*, 2020, 97, 2, 586-591.
- 585.** Kairouz, V.; Charette, A. B.; Collins, S. K.; Implementing flow chemistry in education: the NSERC CREATE program in continuous flow science, *Journal of Flow Chemistry*, 2021, 11, 1, 13-17.
- 586.** Kuijpers, K. P. L.; Weggemans, W. M. A.; Verwijlen, C. J. A.; Noël, T.; Flow chemistry experiments in the undergraduate teaching laboratory: synthesis of diazo dyes and disulfides, *Journal of Flow Chemistry*, 2021, 11, 1, 7-12.
- 587.** Savec, V. F.; Mlinarec, K.; Experimental work in science education from green chemistry perspectives: A systematic literature review using prisma, *Sustainability (Switzerland)*, 2021, 13, 23, 12977.
- 588.** Zhang, S.; Xu, R.; Zhu, H.; Kern, R. E. B.; Spillman, M. G.; Chen, E. S.; Deng, Y.; Shen, S.; Kwag, S.; Clayton, E. A.; Mendelsohn, M. M.; Ozturk, A. N.; Burnham, A. E.; Erlinger,

G. M.; Pederson, J. P.; Gelbaum, C.; Liotta, C. L.; Pollet, P.; Reaction of Diphenyldiazomethane with Benzoic Acids in Batch and Continuous Flow, Journal of Chemical Education, 2021, 98, 2, 469-477.

Pedro, I. de, García-Saiz, A., Ruiz de Laramendi, I., Rojo, T., Afonso, C.A.M., Simeonov, S.P., Waerenborgh, J.C., Blanco, J.A., Ramajo, B., González, J., Fernández, J.R.. Magnetic ionic plastic crystal: choline[FeCl₄]. Physical Chemistry Chemical Physics, 2013, 15, 12724-12733.

IIumupa ce 6:

- 589.** Kimata, H.; Mochida, T. Effects of Molecular Structure on Phase Transitions of Ionic Plastic Crystals Containing Cationic Sandwich Complexes. Crystal Growth and Design, 2018, 18, 7562-7569.
- 590.** Lage-Estebanez, I.; Olmo, L. D.; López, R.; García de la Vega, J. M. Molecular modeling and physicochemical properties of 1-alkyl-3-methylimidazolium-FeX₄ and -Fe₂X₇ (X = Cl and Br) magnetic ionic liquids. Journal of Molecular Liquids, 2018, 256, 175-182.
- 591.** Mochida, T.; Ishida, M.; Tominaga, T.; Takahashi, K.; Sakurai, T.; Ohta, H. Paramagnetic ionic plastic crystals containing the octamethylferrocenium cation: Counteranion dependence of phase transitions and crystal structures. Physical Chemistry Chemical Physics, 2018, 20, 3019-3028.
- 592.** Salgado-Beceiro, J.; Castro-García, S.; Sánchez-Andújar, M.; Rivadulla, F. Motional Narrowing of Electron Spin Resonance Absorption in the Plastic-Crystal Phase of [(CH₃)₄N]FeCl₄. Journal of Physical Chemistry C, 2018, 122, 27769-27774.
- 593.** Kimata, H.; Mochida, T.; Phase transitions and crystal structures of organometallic ionic plastic crystals comprised of ferrocenium cations and CH₂BrBF₃ anions, Journal of Organometallic Chemistry, 2019, 895, 23-27.
- 594.** Kimata, H.; Sakurai, T.; Ohta, H.; Mochida, T.; Phase Transitions, Crystal Structures, and Magnetic Properties of Ferrocenium Ionic Plastic Crystals with CF₃BF₃ and Other Anions, ChemistrySelect, 2019, 4, 4, 1410-1415.
- 595.** Salgado-Beceiro, J.; Bermudez-Garcia, J. M.; Llamas-Saiz, A. L.; Castro-Garcia, S.; Senaris-Rodriguez, M. A.; Rivadulla, F.; Sanchez-Andujar, M.; Multifunctional properties and multi-energy storage in the [(CH₃)₃S][FeCl₄] plastic crystal, Journal of Materials Chemistry C, 2020, 8, 39, 13686-13694.
- 596.** Ben Brahim, K.; Ben Gzaiel, M.; Oueslati, A.; Khirouni, K.; Gargouri, M.; Corbel, G.; Bardeau, J. F.; Organic-inorganic interactions revealed by Raman spectroscopy during reversible phase transitions in semiconducting [(C₂H₅)₄N]FeCl₄, RSC Advances, 2021, 11, 30, 18651-18660.

Simeonov, S.P., Coelho, J.A.S., Afonso, C.A.M.. Integrated chemo-enzymatic production of 5-hydroxymethylfurfural from glucose. ChemSusChem, 2013, 6, 997-1000.

IIumupa ce 6:

- 597.** Cui, M.; Wu, Z.; Huang, R.; Qi, W.; Su, R.; He, Z. Integrating chromium-based ceramic and acid catalysis to convert glucose into 5-hydroxymethylfurfural. *Renewable Energy*, 2018, 125, 327-333.
- 598.** Dumeignil, F.; Guehl, M.; Gimbertnat, A.; Capron, M.; Ferreira, N. L.; Froidevaux, R.; Girardon, J. S.; Wojcieszak, R.; Dhulster, P.; Delcroix, D. From sequential chemoenzymatic synthesis to integrated hybrid catalysis: Taking the best of both worlds to open up the scope of possibilities for a sustainable future. *Catalysis Science and Technology*, 2018, 8, 5708-5734.
- 599.** Jiang, N.; Qi, W.; Wu, Z.; Su, R.; He, Z. “One-pot” conversions of carbohydrates to 5-hydroxymethylfurfural using Sn-ceramic powder and hydrochloric acid. *Catalysis Today*, 2018, 302, 94-99.
- 600.** Li, K.; Du, M.; Ji, P. Multifunctional Tin-Based Heterogeneous Catalyst for Catalytic Conversion of Glucose to 5-Hydroxymethylfurfural. *ACS Sustainable Chemistry and Engineering*, 2018, 6, 5636-5644.
- 601.** Mika, L. T.; Cséfalvay, E.; Németh, Á. Catalytic Conversion of Carbohydrates to Initial Platform Chemicals: Chemistry and Sustainability. *Chemical Reviews*, 2018, 118, 505-613.
- 602.** Yang, Y.; Zhang, C.; Zhang, Z. C. Advances in catalytic transformations of carbohydrates and lignin in ionic liquids and mechanistic studies. *Wiley Interdisciplinary Reviews: Energy and Environment*, 2018, 7, e284.
- 603.** Kohli, K.; Prajapati, R.; Sharma, B. K.; Bio-based chemicals from renewable biomass for integrated biorefineries, *Energies*, 2019, 12, 2, 233.
- 604.** Melgarejo-Torres, R.; Pérez-Vega, S. B.; Rivera-Arredondo, V. M.; Che-Galicia, G. Multiphase bioreactors in the pharmaceutical industry. *Advances in Chemical Engineering*. 2019, 54, 195-237.
- 605.** Cao, M.; Sun, S.; Long, C.; Luo, J.; Zou, H.; Wu, D.; New bi-functionalized ordered mesoporous material as heterogeneous catalyst for production of 5-hydroxymethylfurfural, *Microporous and Mesoporous Materials*, 2021, 312, 110709.
- 606.** Marullo, S.; Sutera, A.; Gallo, G.; Billeci, F.; Rizzo, C.; D'Anna, F.; Chemo-enzymatic Conversion of Glucose in 5-Hydroxymethylfurfural: The Joint Effect of Ionic Liquids and Ultrasound, *ACS Sustainable Chemistry and Engineering*, 2020, 8, 30, 11204-11214.
- 607.** Saikia, K.; Rathankumar, A. K.; Varghese, B. A.; Kalita, S.; Subramanian, S.; Somasundaram, S.; Kumar, V. V.; Magnetically assisted commercially attractive chemo-enzymatic route for the production of 5-hydroxymethylfurfural from inulin, *Biomass Conversion and Biorefinery*, 2021, 11, 2557–2567.
- 608.** Upare, P. P.; Chamas, A.; Lee, J. H.; Kim, J. C.; Kwak, S. K.; Hwang, Y. K.; Hwang, D. W.; Highly Efficient Hydrotalcite/1-Butanol Catalytic System for the Production of the

High-Yield Fructose Crystal from Glucose, ACS Catalysis, 2020, 10, 2, 1388-1396.

- 609.** Dedes, G.; Karnaouri, A.; Marianou, A. A.; Kalogiannis, K. G.; Michailof, C. M.; Lappas, A. A.; Topakas, E.; Conversion of organosolv pretreated hardwood biomass into 5-hydroxymethylfurfural (HMF) by combining enzymatic hydrolysis and isomerization with homogeneous catalysis, Biotechnology for Biofuels, 2021, 14, 172.
- 610.** Saikia, K.; Rathankumar, A. K.; Varghese, B. A.; Kalita, S.; Subramanian, S.; Somasundaram, S.; Kumar, V. V.; Magnetically assisted commercially attractive chemo-enzymatic route for the production of 5-hydroxymethylfurfural from inulin, Biomass Conversion and Biorefinery, 2021, 11, 6, 2557-2567.

Subbiah, S., Simeonov, S.P., Esperança, J.M.S.S., Rebelo, L.P.N., Afonso, C.A.M.. Direct transformation of 5-hydroxymethylfurfural to the building blocks 2,5-dihydroxymethylfurfural (DHMF) and 5-hydroxymethyl furanoic acid (HMFA) via Cannizzaro reaction. Green Chemistry, 2013, 15, 2849-2853.

Humupa ce e:

- 611.** Brandoles, A.; Ragni, D.; Di Carmine, G.; Bernardi, T.; Bortolini, O.; Giovannini, P. P.; Pandoli, O. G.; Altomare, A.; Massi, A. Aerobic oxidation of 5-hydroxymethylfurfural to 5-hydroxymethyl-2-furancarboxylic acid and its derivatives by heterogeneous NHC-catalysis. Organic and Biomolecular Chemistry, 2018, 16, 8955-8964.
- 612.** Chacón-Huete, F.; Messina, C.; Chen, F.; Cuccia, L.; Ottenwaelder, X.; Forgione, P. Solvent-free mechanochemical oxidation and reduction of biomass-derived 5-hydroxymethyl furfural. Green Chemistry, 2018, 20, 5261-5265.
- 613.** Chen, S.; Wojcieszak, R.; Dumeignil, F.; Marceau, E.; Royer, S. How Catalysts and Experimental Conditions Determine the Selective Hydroconversion of Furfural and 5-Hydroxymethylfurfural. Chemical Reviews, 2018, 118, 11023-11117.
- 614.** Fan, W.; Queneau, Y.; Popowycz, F. HMF in multicomponent reactions: Utilization of 5-hydroxymethylfurfural (HMF) in the Biginelli reaction. Green Chemistry, 2018, 20, 485-492.
- 615.** Hu, L.; Li, T.; Xu, J.; He, A.; Tang, X.; Chu, X.; Xu, J. Catalytic transfer hydrogenation of biomass-derived 5-hydroxymethylfurfural into 2, 5-dihydroxymethylfuran over magnetic zirconium-based coordination polymer. Chemical Engineering Journal, 2018, 352, 110-119.
- 616.** Hu, L.; Xu, J.; Zhou, S.; He, A.; Tang, X.; Lin, L.; Xu, J.; Zhao, Y. Catalytic Advances in the Production and Application of Biomass-Derived 2, 5-Dihydroxymethylfuran. ACS Catalysis, 2018, 8, 2959-2980.
- 617.** Hu, L.; Yang, M.; Xu, N.; Xu, J.; Zhou, S.; Chu, X.; Zhao, Y. Selective transformation of biomass-derived 5-hydroxymethylfurfural into 2, 5-dihydroxymethylfuran via catalytic transfer hydrogenation over magnetic zirconium hydroxides. Korean Journal of Chemical Engineering, 2018, 35, 99-109.

- 618.** Li, K.; Sun, Y. Electrocatalytic Upgrading of Biomass-Derived Intermediate Compounds to Value-Added Products. *Chemistry - A European Journal*, 2018, 24, 18258-18270.
- 619.** Petri, A.; Masia, G.; Piccolo, O. Biocatalytic conversion of 5-hydroxymethylfurfural: Synthesis of 2, 5-bis(hydroxymethyl)furan and 5-(hydroxymethyl)furfurylamine. *Catalysis Communications*, 2018, 114, 15-18.
- 620.** Pingen, D.; Schwaderer, J. B.; Walter, J.; Wen, J.; Murray, G.; Vogt, D.; Mecking, S. Diamines for Polymer Materials via Direct Amination of Lipid- and Lignocellulose-based Alcohols with NH₃. *ChemCatChem*, 2018, 10, 3027-3033.
- 621.** Portilla-Zuñiga, O. M.; Sathicq, Á. G.; Martínez, J. J.; Fernandes, S. A.; Rezende, T. R. M.; Romanelli, G. P. Synthesis of Biginelli adducts using a Preyssler heteropolyacid in silica matrix from biomass building block. *Sustainable Chemistry and Pharmacy*, 2018, 10, 50-55.
- 622.** Xia, H.; Xu, S.; Hu, H.; An, J.; Li, C. Efficient conversion of 5-hydroxymethylfurfural to high-value chemicals by chemo- and bio-catalysis. *RSC Advances*, 2018, 8, 30875-30886.
- 623.** Cang, R.; Shen, L. Q.; Yang, G.; Zhang, Z. D.; Huang, H.; Zhang, Z. G.; Highly selective oxidation of 5-hydroxymethylfurfural to 5-hydroxymethyl-2-furancarboxylic acid by a robust whole-cell biocatalyst, *Catalysts*, 2019, 9, 6, 526.
- 624.** Hu, L.; Dai, X.; Li, N.; Tang, X.; Jiang, Y.; Highly selective hydrogenation of biomass-derived 5-hydroxymethylfurfural into 2, 5-bis(hydroxymethyl)furan over an acid-base bifunctional hafnium-based coordination polymer catalyst, *Sustainable Energy and Fuels*, 2019, 3, 4, 1033-1041.
- 625.** Hu, L.; Li, N.; Dai, X.; Guo, Y.; Jiang, Y.; He, A.; Xu, J.; Highly efficient production of 2, 5-dihydroxymethylfuran from biomass-derived 5-hydroxymethylfurfural over an amorphous and mesoporous zirconium phosphonate catalyst, *Journal of Energy Chemistry*, 2019, 37, 82-92.
- 626.** Hu, L.; Liu, S.; Song, J.; Jiang, Y.; He, A.; Xu, J.; Zirconium-Containing Organic-Inorganic Nanohybrid as a Highly Efficient Catalyst for the Selective Synthesis of Biomass-Derived 2, 5-Dihydroxymethylfuran in Isopropanol, *Waste and Biomass Valorization*, 2020, 11, 3485–3499.
- 627.** Körner, P.; Jung, D.; Kruse, A.; Influence of the pH Value on the Hydrothermal Degradation of Fructose, *ChemistryOpen*, 2019, 8, 8, 1121-1132.
- 628.** Li, H.; Li, Y.; Fang, Z.; Smith, R. L.; Efficient catalytic transfer hydrogenation of biomass-based furfural to furfuryl alcohol with recyclable Hf-phenylphosphonate nanohybrids, *Catalysis Today*, 2019, 319, 84-92.
- 629.** Pyo, S. H.; Sayed, M.; Hatti-Kaul, R.; Batch and Continuous Flow Production of 5-Hydroxymethylfurfural from a High Concentration of Fructose Using an Acidic Ion Exchange Catalyst, *Organic Process Research and Development*, 2019, 23, 5, 952-960.

- 630.** Todea, A.; Bîican, I.; Aparaschivei, D.; Păușescu, I.; Badea, V.; Péter, F.; Gherman, V. D.; Rusu, G.; Nagy, L.; Kéki, S.; Biodegradable oligoesters of ϵ -caprolactone and 5-hydroxymethyl-2-furancarboxylic acid synthesized by immobilized lipases, *Polymers*, 2019, 11, 9, 1402.
- 631.** Wang, L.; Tan, J. N.; Ahmar, M.; Queneau, Y.; Solvent issues in the Baylis-Hillman reaction of 5-hydroxymethyl furfural (HMF) and 5-glucosyloxymethyl furfural (GMF). Towards no-solvent conditions, *Pure and Applied Chemistry*, 2019, 91, 7, 1149-1158.
- 632.** Xie, H.; Qi, T.; Lyu, Y. J.; Zhang, J. F.; Si, Z. B.; Liu, L. J.; Zhu, L. F.; Yang, H. Q.; Hu, C. W.; Molecular mechanism comparison of decarbonylation with deoxygenation and hydrogenation of 5-hydroxymethylfurfural catalyzed by palladium acetate, *Physical Chemistry Chemical Physics*, 2019, 21, 7, 3795-3804.
- 633.** Zhang, J.; Wang, T.; Tang, X.; Peng, L.; Wei, J.; Lin, L.; Methods in the synthesis and conversion of 2, 5-bis-(hydroxymethyl)furan from bio-derived 5-hydroxymethylfurfural and its great potential in polymerization, *BioResources*, 2019, 13, 3, 7137-7154.
- 634.** Zhou, S.; Dai, F.; Chen, Y.; Dang, C.; Zhang, C.; Liu, D.; Qi, H.; Sustainable hydrothermal self-assembly of hafnium-lignosulfonate nanohybrids for highly efficient reductive upgrading of 5-hydroxymethylfurfural, *Green Chemistry*, 2019, 21, 6, 1421-1431.
- 635.** Galkin, K. I.; Ananikov, V. P.; The Increasing Value of Biomass: Moving From C6 Carbohydrates to Multifunctionalized Building Blocks via 5-(hydroxymethyl)furfural, *ChemistryOpen*, 2020, 9, 11, 1135-1148.
- 636.** Hu, L.; Liu, S.; Song, J.; Jiang, Y.; He, A.; Xu, J.; Zirconium-Containing Organic-Inorganic Nanohybrid as a Highly Efficient Catalyst for the Selective Synthesis of Biomass-Derived 2, 5-Dihydroxymethylfuran in Isopropanol, *Waste and Biomass Valorization*, 2020, 11, 7, 3485-3499.
- 637.** Lucas, N.; Nagpure, A. S.; Gurrala, L.; Gogoi, P.; Chilukuri, S.; Efficacy of clay catalysts for the dehydration of fructose to 5-hydroxymethyl furfural in biphasic medium, *Journal of Porous Materials*, 2020, 27, 6, 1691-1700.
- 638.** Munoz, T.; Rache, L. Y.; Rojas, H. A.; Romanelli, G. P.; Martinez, J. J.; Luque, R.; Production of 5-hydroxymethyl-2-furan carboxylic acid by *Serratia marcescens* from crude 5-hydroxymethylfurfural, *Biochemical Engineering Journal*, 2020, 154, 107421.
- 639.** Naim, W.; Schade, O. R.; Saraci, E.; Wust, D.; Kruse, A.; Grunwaldt, J. D.; Toward an Intensified Process of Biomass-Derived Monomers: The Influence of 5-(Hydroxymethyl)furfural Byproducts on the Gold-Catalyzed Synthesis of 2, 5-Furandicarboxylic Acid, *ACS Sustainable Chemistry and Engineering*, 2020, 8, 31, 11512-11521.
- 640.** Zhao, D.; Zhao, D.; Rodriguez-Padron, D.; Rodriguez-Padron, D.; Luque, R.; Luque, R.; Len, C.; Len, C.; Insights into the Selective Oxidation of 5-Hydroxymethylfurfural to 5-Hydroxymethyl-2-furancarboxylic Acid Using Silver Oxide, *ACS Sustainable Chemistry and Engineering*, 2020, 8, 23, 8486-8495.

- 641.** AricΓI, F.; Synthetic approaches to 2, 5-bis(hydroxymethyl)furan (BHMF): A stable bio-based diol, *Pure and Applied Chemistry*, 2021, 93, 5, 551-560.
- 642.** BaEη, S. D.; GΓjrkan, R.; Selective extraction and enrichment of 5-hydroxymethylfurfural from honey, molasses, jam and vinegar samples prior to sensitive determination by micro-volume UV-vis spectrophotometry, *Journal of Food Composition and Analysis*, 2021, 95, 103664.
- 643.** Da Rosa, R.; Grand, L.; Schenkel, E. P.; Sibelle Campos Bernardes, L.; Jacolot, M.; Popowycz, F.; The Use of 5-Hydroxymethylfurfural towards Fine Chemicals: Synthesis and Direct Arylation of 5-HMF-Based Oxazoles, *Synlett*, 2021, 32, 8, 838-844.
- 644.** Dutta, S.; Valorization of biomass-derived furfurals: reactivity patterns, synthetic strategies, and applications, *Biomass Conversion and Biorefinery*, 2021, 10.1007/s13399-021-01924-w
- 645.** He, A.; Hu, L.; Zhang, Y.; Jiang, Y.; Wang, X.; Xu, J.; Wu, Z.; High-Efficiency Catalytic Transfer Hydrogenation of Biomass-Based 5-Hydroxymethylfurfural to 2, 5-Bis(hydroxymethyl)furan over a Zirconium-Carbon Coordination Catalyst, *ACS Sustainable Chemistry and Engineering*, 2021, 9, 46, 15557-15570.
- 646.** Li, C.; Na, Y.; Recent Advances in Photocatalytic Oxidation of 5-Hydroxymethylfurfural, *ChemPhotoChem*, 2021, 5, 6, 502-511.
- 647.** Su, T.; Liu, Q.; LΓj, H.; Ali Alasmary, F.; Zhao, D.; Len, C.; Selective oxidation of 5-hydroxymethylfurfural to 5-hydroxymethyl-2-furancarboxylic acid using silver oxide supported on calcium carbonate, *Molecular Catalysis*, 2021, 502, 111374.
- 648.** Xu, L.; Nie, R.; Chen, X.; Li, Y.; Jiang, Y.; Lu, X.; Formic acid enabled selectivity boosting in transfer hydrogenation of 5-hydroxymethylfurfural to 2, 5-furandimethanol on highly dispersed Co-Nxsites, *Catalysis Science and Technology*, 2021, 11, 4, 1451-1457.
- 649.** Yue, X.; Verrier, C.; Ahmar, M.; Queneau, Y.; Reactivity of secondary N-alkyl acrylamides in Morita“Baylis“Hillman reactions, *Comptes Rendus Chimie*, 2021, 24, 2, 319-330.

Frade, R.F.M., Simeonov, S.P., Rosatella, A.A., Siopa, F., Afonso, C.A.M.. Toxicological evaluation of magnetic ionic liquids in human cell lines. *Chemosphere*, 2013, 92, 100-105.

IHumupa ce e:

- 650.** Cheng, K. L.; Yuan, W. L.; He, L.; Tang, N.; Jian, H. M.; Zhao, Y.; Qin, S.; Tao, G. H. Fluorescigenic Magnetofluids Based on Gadolinium, Terbium, and Dysprosium-Containing Imidazolium Salts. *Inorganic Chemistry*, 2018, 57, 6376-6390.
- 651.** Clark, K. D.; Emaus, M. N.; Varona, M.; Bowers, A. N.; Anderson, J. L. Ionic liquids: solvents and sorbents in sample preparation. *Journal of Separation Science*, 2018, 41, 209-235.

- 652.** Lage-Estebanez, I.; Olmo, L. D.; López, R.; García de la Vega, J. M. Molecular modeling and physicochemical properties of 1-alkyl-3-methylimidazolium-FeX4 and -Fe2X7 (X = Cl and Br) magnetic ionic liquids. *Journal of Molecular Liquids*, 2018, 256, 175-182.
- 653.** Tang, D.; Li, T.; Li, C. M. Metal and phosphonium-based ionic liquid: A new Co and P dual-source for synthesis of cobalt phosphide toward hydrogen evolution reaction. *International Journal of Hydrogen Energy*, 2019, 44, 1720-1726.
- 654.** Gomes, J. M.; Silva, S. S.; Reis, R. L.; Biocompatible ionic liquids: Fundamental behaviours and applications, *Chemical Society Reviews*, 2019, 48, 15, 4317-4335.
- 655.** Iman, V.; Taculescu, A.; Dehelean, C.; Paunescu, V.; Magnetic Nanoparticles (MNPs) Influence on SK-BR3 Breast Cancer Cell Line - In vitro Study, *Revista de Chimie*, 2019, 70, 7, 2452-2455.
- 656.** Li, T.; Tang, D.; Li, C. M.; Microwave-assisted synthesis of cobalt phosphide using ionic liquid as Co and P dual-source for hydrogen evolution reaction, *Electrochimica Acta*, 2019, 295, 1027-1033.
- 657.** Tang, D.; Li, T.; Li, C. M.; Metal and phosphonium-based ionic liquid: A new Co and P dual-source for synthesis of cobalt phosphide toward hydrogen evolution reaction, *International Journal of Hydrogen Energy*, 2019, 44, 3, 1720-1726.
- 658.** Zanoni, B. V.; Brasil Romão, G.; Andrade, R. S.; Barreto Cicarelli, R. M.; Trovatti, E.; Chiari-Andrèo, B. G.; Iglesias, M.; Cytotoxic effect of protic ionic liquids in HepG2 and HaCat human cells: In vitro and in silico studies, *Toxicology Research*, 2019, 8, 3, 447-458.
- 659.** Abdelaziz, M. A.; Mansour, F. R.; Danielson, N. D.; A gadolinium-based magnetic ionic liquid for dispersive liquid–liquid microextraction, *Analytical and Bioanalytical Chemistry*, 2021, 413, 205–214.
- 660.** Farzin, A.; Etesami, S. A.; Quint, J.; Memic, A.; Tamayol, A.; Magnetic Nanoparticles in Cancer Therapy and Diagnosis, *Advanced Healthcare Materials*, 2020, 9, 9, e1901058.
- 661.** Li, J.; Zang, H.; Yao, S.; Li, Z.; Song, H.; Photodegradation of benzothiazole ionic liquids catalyzed by titanium dioxide and silver-loaded titanium dioxide, *Chinese Journal of Chemical Engineering*, 2020, 28, 5, 1397-1404.
- 662.** Xu, F.; Yuan, H.; Sui, M.; Zhang, Y.; Li, P.; Liu, Q.; Luo, C.; Xu, H.; Preliminary study on subchronic toxicity of ionic liquid [C14mim]Br in rats, *Huanjing Kexue Xuebao/Acta Scientiae Circumstantiae*, 2020, 40, 1, 299-305.
- 663.** Abdelaziz, M. A.; Mansour, F. R.; Danielson, N. D.; A gadolinium-based magnetic ionic liquid for dispersive liquid–liquid microextraction, *Analytical and Bioanalytical Chemistry*, 2021, 413, 1, 205-214.
- 664.** Alves, M. S.; Neto, L. C. F.; Scheid, C.; Merib, J.; An overview of magnetic ionic liquids: From synthetic strategies to applications in microextraction techniques, *Journal of*

Separation Science, 2022, 45, 258–281.

- 665.** Forte, A.; Gago, S.; Ribeiro Carrott, M.; Carrott, P.; Alves, C.; Teodoro, F.; Pedrosa, R.; Marrucho, I. M.; Branco, L. C.; Mesoporous silica nanoparticles with manganese and lanthanide salts: synthesis, characterization and cytotoxicity studies, Dalton Transactions, 2021, 50, 24, 8588-8599.
- 666.** Wei, P.; Pan, X.; Chen, C. Y.; Li, H. Y.; Yan, X.; Li, C.; Chu, Y. H.; Yan, B.; Emerging impacts of ionic liquids on eco-environmental safety and human health, Chemical Society Reviews, 2021, 50, 24, 13609-13627.

Frade, R.F.M., Coelho, J.A.S., Simeonov, S.P., Afonso, C.A.M.. An emerging platform from renewable resources: selection guidelines for human exposure of furfural-related compounds. Toxicology Research, 2014, 3, 311-314

I lumupa ce 6:

- 667.** Kumar, S.; Ahluwalia, V.; Kundu, P.; Sangwan, R. S.; Kansal, S. K.; Runge, T. M.; Elumalai, S. Improved levulinic acid production from agri-residue biomass in biphasic solvent system through synergistic catalytic effect of acid and products. Bioresource Technology, 2018, 251, 143-150.
- 668.** Serum, E. M., C. A. Sutton, A. C. Renner, D. Dawn and M. P. Sibi; New AB type monomers from lignocellulosic biomass: Pure and Applied Chemistry, 2019, 91, 3, 389-396.
- 669.** Hou, Y. N.; Wang, Y. R.; Zheng, C. H.; Feng, K.; Biotransformation of 5-hydroxymethylfurfural into 2, 5-dihydroxymethylfuran by Ganoderma sessile and toxicological assessment of both compounds, AMB Express, 2020, 10, 88.

Antonov, L., Deneva, V., Simeonov, S., Kurteva, V., Crochet, A., Fromm, K. M., Shivachev, B., Nikolova, R., Savarese, M., Adamo, C.. Controlled tautomeric switching in azonaphthols - tune by substituents in the phenyl ring. ChemPhysChem, 2015, 16, 3, 649-657.

I lumupa ce 6:

- 670.** Rege, S. A.; Arya, M.; Momin, S. A.; Mini review on keto-enol ratio of curcuminoids, Ukrainian Food Journal, 2019, 7, 27-32.
- 671.** Rege, S. A.; Arya, M.; Momin, S. A.; Structure activity relationship of tautomers of curcumin: a review, Ukrainian Food Journal, 2019, 8, 45-60.
- 672.** Darugar, V.; Vakili, M.; Tayyari, S. F.; Electronic transport behavior of 1-(Phenyldiazaryl)naphthalen-2-ol and its derivatives as optical molecular switches; A First-principles approach (2021) Optik, 236, art. no. 166475.

Simeonov S., Afonso C.. Basicity and Stability of the Urea Deep Eutectic Mixtures. RSC Advances,

2016, 6, 5485-5490.

Hlumupa ce e:

- 673.** Hu, L.; Luo, J.; Lu, D.; Tang, Q. Urea decomposition: Efficient synthesis of pyrroles using the deep eutectic solvent choline chloride/urea. *Tetrahedron Letters*, 2018, 59, 1698-1701.
- 674.** Longo, L. S.; Craveiro, M. V. Deep eutectic solvents as unconventional media for multicomponent reactions. *Journal of the Brazilian Chemical Society*, 2018, 29, 1999-2025.
- 675.** Zdanowicz, M.; Wilpiszewska, K.; Spychaj, T. Deep eutectic solvents for polysaccharides processing. A review. *Carbohydrate Polymers*, 2018, 200, 361-380.
- 676.** Kalhor, P. and K. Ghandi; Deep eutectic solvents for pretreatment, extraction, and catalysis of biomass and food waste: *Molecules*, 2019, 24, 4012.
- 677.** Kist, J. A., M. T. Henzl, J. L. Bañuelos and G. A. Baker; Calorimetric evaluation of the operational thermal stability of ribonuclease A in hydrated deep eutectic solvents: *ACS Sustainable Chemistry and Engineering*, 2019, 7, 15, 12682-12687.
- 678.** Ong, V. Z., T. Y. Wu, C. B. T. L. Lee, N. W. R. Cheong and K. P. Y. Shak; Sequential ultrasonication and deep eutectic solvent pretreatment to remove lignin and recover xylose from oil palm fronds: *Ultrasonics Sonochemistry*, 2019, 58, 104598.
- 679.** Škulcová, A., V. Majová, T. Dubaj and M. Jablonský; Physical properties and thermal behavior of novel ternary green solvents: *Journal of Molecular Liquids*, 2019, 287,
- 680.** Atri, R. S.; Sanchez-Fernandez, A.; Hammond, O. S.; Manasi, I.; Doutch, J.; Tellam, J. P.; Edler, K. J.; Morphology Modulation of Ionic Surfactant Micelles in Ternary Deep Eutectic Solvents, *Journal of Physical Chemistry B*, 2020, 124, 28, 6004-6014.
- 681.** Ji, Q.; Yu, X.; Yagoub, A. E. G. A.; Chen, L.; Zhou, C.; Efficient removal of lignin from vegetable wastes by ultrasonic and microwave-assisted treatment with ternary deep eutectic solvent, *Industrial Crops and Products*, 2020, 149, 112357.
- 682.** Ong, V. Z.; Wu, T. Y.; Chu, K. K. L.; Sun, W. Y.; Shak, K. P. Y.; A combined pretreatment with ultrasound-assisted alkaline solution and aqueous deep eutectic solvent for enhancing delignification and enzymatic hydrolysis from oil palm fronds, *Industrial Crops and Products*, 2021, 160, 112974
- 683.** Sebest, F.; Lachhani, K.; Pimpasri, C.; Casarrubios, L.; White, A. J. P.; Rzepa, H. S.; Diez-Gonzalez, S.; Cycloaddition Reactions of Azides and Electron-Deficient Alkenes in Deep Eutectic Solvents: Pyrazolines, Aziridines and Other Surprises, *Advanced Synthesis and Catalysis*, 2020, 362, 1877–1886.
- 684.** Feng, X.; Duan, C.; Qin, X.; Zhang, Y.; Gao, K.; Wang, X.; Lu, W.; Research Advances in Lignocellulose Biorefinery Deep Eutectic Solvents Pretreatment, Chung-kuo Tsao Chih/China Pulp and Paper, 2021, 40, 3, 71-82.

- 685.** Jung, D.; Jung, J. B.; Kang, S.; Li, K.; Hwang, I.; Jeong, J. H.; Kim, H. S.; Lee, J.; Toxicometabolomics study of a deep eutectic solvent comprising choline chloride and urea suggestsin vivotoxicity involving oxidative stress and ammonia stress, *Green Chemistry*, 2021, 23, 3, 1300-1311.
- 686.** Kalhor, P.; Ghandi, K.; Deep eutectic solvents as catalysts for upgrading biomass, *Catalysts*, 2021, 11, 2, 1-32.
- 687.** Liu, C.; Liu, H.; Zhang, T.; Rao, Z.; Preparation and thermal physical properties of nanofluids based on a urea/choline chloride deep eutectic solvent system, *Huagong Xuebao/CIESC Journal*, 2021, 72, 3, 1333-1341.
- 688.** Maia, R. A.; Louis, B.; Baudron, S. A.; Deep eutectic solvents for the preparation and post-synthetic modification of metal- And covalent organic frameworks, *CrystEngComm*, 2021, 23, 29, 5016-5032.
- 689.** Maia, R. A.; Louis, B.; Baudron, S. A.; HKUST-1 MOF in reline deep eutectic solvent: synthesis and phase transformation, *Dalton Transactions*, 2021, 50, 12, 4145-4151.
- 690.** Patil, S. B.; An, J. Y.; Li, Z. J.; Wu, Y. C.; Gowdru, S. M.; Hsieh, H. H.; Chen, Z.; Wang, D. Y.; Cost-effective 1T-MoS₂ grown on graphite cathode materials for high-temperature rechargeable aluminum ion batteries and hydrogen evolution in water splitting, *Catalysts*, 2021, 11, 12, 1547.
- 691.** Xiong Chang, X.; Mujawar Mubarak, N.; Ali Mazari, S.; Sattar Jatoi, A.; Ahmad, A.; Khalid, M.; Walvekar, R.; Abdullah, E. C.; Karri, R. R.; Siddiqui, M. T. H.; Nizamuddin, S.; A review on the properties and applications of chitosan, cellulose and deep eutectic solvent in green chemistry, *Journal of Industrial and Engineering Chemistry*, 2021, 104, 362-380.
- 692.** Zhang, M.; Zhang, X.; Liu, Y.; Wu, K.; Zhu, Y.; Lu, H.; Liang, B.; Insights into the relationships between physicochemical properties, solvent performance, and applications of deep eutectic solvents, *Environmental Science and Pollution Research*, 2021, 28, 27, 35537-35563.

Simeonov, S., Coelho, J., Afonso, C.. Synthesis of 5-(Hydroxymethyl)furfural (HMF). *Organic Synthesis*, 2016, 29-36, DOI:10.15227/orgsyn.093.0029

I lumupa ce 6:

- 693.** Altuner, E. M.; Alpas, H. Predictive modeling for 5-hydroxymethylfurfural formation by some application conditions of high hydrostatic pressure, namely glucose concentration and application temperature, in high glucose containing model beverages. *Journal of Food Process Engineering*, 2018, 41, e12852.
- 694.** Musolino, M.; Andraos, J.; Aricò, F. An Easy Scalable Approach to HMF Employing DMC as Reaction Media: Reaction Optimization and Comparative Environmental Assessment. *ChemistrySelect*, 2018, 3, 2359-2365.

- 695.** Aljammal, N., C. Jabbour, J. W. Thybaut, K. Demeestere, F. Verpoort and P. M. Heynderickx; Metal-organic frameworks as catalysts for sugar conversion into platform chemicals: State-of-the-art and prospects: Coordination Chemistry Reviews, 2019, 401, 213064
- 696.** Bielski, R.; Gryniewicz, G.; Furan platform chemicals beyond fuels and plastics, Green Chemistry, 2021, 23, 19, 7458-7487.

Simeonov, S. P., Nunes, J. P. M., Guerra, K., Kurteva, V. B., Afonso, C. A. M.. Synthesis of chiral cyclopentenones. Chemical Reviews, 2016, 116, 5744-5893.

Iluumupa ce 8:

- 697.** Bredihhin, A.; Salmar, S.; Vares, L.; Route for conversion of furfural to ethylcyclopentane, ACS Omega, 2018, 3, 10211-10215.
- 698.** Buller, R.; Hecht, K.; Mirata, M. A.; Meyer, H.-P.; An Appreciation of Biocatalysis in the Swiss Manufacturing Environment (Book Chapter), In: RSC Catalysis Series, 2018, Vol. 2018-January, de Gonzalo, G.; de Maria, P. D. (Vol. Eds.), Royal Society of Chemistry, Chapter 1, pp. 3-43.
- 699.** Buller, R.; Hecht, K.; Mirata, M. A.; Meyer, H.-P.; An appreciation of biocatalysis in the Swiss manufacturing environment, In: Biocatalysis: An Industrial Perspective, Catalysis Series, Book 29, G. de Gonzalo, P. D. de María (Eds.), Chapter 1, 2018, The Royal Society of Chemistry.
- 700.** Cleary, S. E.; PhD Thesis, Fragmentation, rearrangement, and c-h insertion: reactions of vinyl cations derived from diazo carbonyls, 2018, University of Vermont, USA.
- 701.** Fan, T.; Wang, A.; Li, J.-Q.; Ye, J.-L.; Zheng, X.; Huang, P.-Q.; A versatile one-pot synthesis of polysubstituted cyclopent-2-enimines from α , β -unsaturated amides via imino-Nazarov reaction, Angewandte Chemie International Edition, 2018, 57, 10352-10356.
- 702.** Fuchibe, K.; Takayama, R.; Aono, T.; Hu, J.; Hidano, T.; Sasagawa, H.; Fujiwara, M.; Miyazaki, S.; Nadano, R.; Ichikawa, J.; Regioselective syntheses of fluorinated cyclopentanone derivatives: ring construction strategy using transition-metal–difluorocarbene complexes and free difluorocarbene, Synthesis, 2018, 50, 514-528.
- 703.** Gelozia, S.; Kwon, Y.; McDonald, R.; West, F. G.; One-pot generation of bicyclo[3.1.0]hexanols and cyclohexanones via double interrupted Nazarov reaction, Chem. Eur. J. 2018, 24, 6052-6056.
- 704.** Hiscox, A.; Ribeiro, K.; Batey, R. A.; Lanthanide(III)-catalyzed synthesis of trans-diaminocyclopentenones from substituted furfurals and secondary amines via a domino ring-opening/4 π -electrocyclization pathway, Organic Letters, 2018, 20, 6668-6672.
- 705.** Hsueh, Nai-Chen; PhD thesis, Synthesis of Substituted Aryl-Dihydronaphthalenes and Indenes, 2018, Kaohsiung Medical University, Taiwan.

- 706.** Huang, C.; Zhang, Y.; Yang, H.; Wang, D.; Mi, L.; Shao, Z.; Liu, M.; Hou, H.; Oriented controllable fabrication of metal–organic frameworks membranes as solid catalysts for cascade indole acylation–Nazarov cyclization for cyclopentenone[b]indoles, *Crystal Growth & Design*, 2018, 18, 5674-5681.
- 707.** Huang, Y.-W.; Kong, K.; Wood, J.; Total synthesis of (+)- and (\pm)-Hosieine A, *Angewandte Chemie International Edition*, 2018, 57, 7664-7667.
- 708.** Innocenti, R.; Menchi, G.; Trabocchi, A.; Dual iminium- and Lewis base catalyzed Morita–Baylis–Hillman reaction on cyclopent-2-enone, *Synlett*, 2018, 29, 820-824.
- 709.** Jin, J.; Zhao, Y.; Gouranourimi, A.; Ariafard, A.; Chan, P. W. H.; Chiral Brønsted acid catalyzed enantioselective dehydrative Nazarov-type electrocyclization of aryl and 2-thienyl vinyl alcohols, *Journal of the American Chemical Society*, 2018, 140, 5834-5841.
- 710.** Kamishima, T.; Nonaka, T.; Watanabe, T.; Koseki, Y.; Kasai, H.; One-step conversion to a disubstituted cyclopentenone from 2-deoxy-D-glucose and application to synthesis of prostaglandin E1 methyl ester, *Bulletin of the Chemical Society of Japan*, 2018, 91, 1691-1696.
- 711.** Karad, S. N.; Panchal, H.; Clarke, C.; Lewis, W.; Lam, H. W.; Enantioselective synthesis of chiral cyclopent-2-enones by nickel-catalyzed desymmetrization of malonate esters, *Angewandte Chemie International Edition*, 2018, 57, 9122-9125.
- 712.** Kurohara, T.; Jiyue, J.; Shibuya, M.; Yamamoto, Y.; Synthesis of alkoxy carbonyldifluoromethyl-substituted semisquarates and their transformations, *Synthesis*, 2018, 50, 1687-1698.
- 713.** Kurohara, Takashi; PhD Thesis, Development of a novel four-membered ring synthesis device that enables backbone diversified synthesis of fluorine-containing functional molecules, 2018, Nagoya University Graduate School of Drug Science and Technology Basic Drug Discovery, Japan.
- 714.** Liang, J.-Y.; Zhang, W.-Y.; Yan, Y.-T.; Wu, Y.-L.; Li, G.-P.; Tong, W.-Q.; Wang, Y.; Six new coordination polymers based on 4-(1H-imidazol-1-yl)phthalic acid: structural diversities, magnetism and luminescence properties, *Zeitschrift für anorganische und allgemeine Chemie*, 2018, 644, 504-511.
- 715.** Liu, H.-C.; Wei, L.; Huang, R.; Tao, H.-Y.; Cong, H.; Wang, C.-J.; Ag(I)-catalyzed kinetic resolution of cyclopentene-1, 3-diones, *Organic Letters*, 2018, 20, 3482-3486.
- 716.** Liu, M.; Gao, K.; Fan, Y.; Guo, X.; Wu, J.; Meng, X.; Hou, H.; Co-cluster-based metal-organic frameworks as selective catalysts for benzene tandem acylation–Nazarov cyclization to benzocyclopentanone, *Chemistry – A European Journal*, 2018, 24, 1416-1424.
- 717.** Marques, Anne-Sophie; PhD thesis, Développement de nouvelles réactions domino initiées par une cyclisation d'iso-Nazarov pour la synthèse de composés polycycliques, 2018, Université Paris-Saclay, France.

- 718.** Marsili, L. A.; Pergomet, J. L.; Gandon, V.; Riveira, M. J.; Iodine-catalyzed iso-Nazarov cyclization of conjugated dienals for the synthesis of 2-cyclopentenones, *Organic Letters*, 2018, 20, 7298-7303.
- 719.** Martínez, J. P.; Vizuete, M.; Arellano, L. M.; Poater, A.; Bickelhaupt, F. M.; Langa, F.; Solà, M.; Regioselectivity of the Pauson-Khand reaction in single-walled carbon nanotubes, *Nanoscale*, 2018, 10, 15078-15089.
- 720.** Mietke, T.; Cruchter, T.; Larionov, V. A.; Faber, T.; Harms, K.; Meggers, E.; Asymmetric Nazarov cyclizations catalyzed by chiral-at-metal complexes, *Advanced Synthesis and Catalysis*, 2018, 360, 2093-2100.
- 721.** Nichol, M. F.; Limon, L.; de Alaniz, J. R.; Preparation of cyclopent-2-enone derivatives via the Aza-Piancatelli rearrangement, *Organic Synthesis*, 2018, 95, 46-59.
- 722.** Schmiedel, V. M.; PhD thesis, Strained terpenes as targets: total synthesis of the dichrocephone sesquiterpenes and studies towards xenicane diterpenes, 2018, Freie Universität Berlin, Germany.
- 723.** Wang, C.-S.; Wu, J.-L.; Li, C.; Li, L.-Z.; Mei, G.-J.; Shi, F.; Design of C3-Alkenyl-Substituted 2-Indolylmethanols for Catalytic Asymmetric Interrupted Nazarov-Type Cyclization, *Advanced Synthesis & Catalysis*, 2018, 360, 846-851.
- 724.** Wang, J.-Y.; Wu, P.; Wu, J.-L.; Mei, G.-J.; Shi, F.; Chemodivergent tandem cyclizations of 2-indolylmethanols with tryptophols: C–N versus C–C bond formation, *The Journal of Organic Chemistry*, 2018, 83, 5931-5946.
- 725.** Wu, J.-L.; Wang, C.-S.; Wang, J.-R.; Mei, G.-J.; Shi, F.; A catalytic asymmetric interrupted Nazarov-type cyclization of 2-indolylmethanols with cyclic enaminones, *Organic and Biomolecular Chemistry*, 2018, 16, 5457-5464.
- 726.** Wu, J.-L.; Wang, J.-Y.; Wu, P.; Wang, J.-R.; Mei, G.-J.; Shi, F.; Diastereo- and enantioselective construction of chiral cyclopenta[b]indole framework via a catalytic asymmetric tandem cyclization of 2-indolylmethanols with 2-naphthols, *Organic Chemistry Frontiers*, 2018, 5, 1436-1445.
- 727.** Zhang, H.; Cheng, B.; Lu, Z.; Enantioselective cobalt-catalyzed sequential Nazarov cyclization/electrophilic fluorination: access to chiral α -fluorocyclopentenones, *Organic Letters*, 2018, 20, 4028-4031.
- 728.** Zhang, H.; Lu, Z.; Nickel-catalyzed enantioselective sequential Nazarov cyclization/decarboxylation, *Organic Chemistry Frontiers*, 2018, 5, 1763-1767.
- 729.** Zhang, H.; Lu, Z.; Nickel/Copper dual catalysis for sequential Nazarov cyclization/decarboxylative aldol reaction, *Organic Letters*, 2018, 20, 5709-5713.
- 730.** Al-Azemi, T. F.; Vinodh, M.; Alipour, F. H.; Mohamod, A. A.; Chiral discrimination of 2-heptylaminium salt by planar-chiral monohydroxy-functionalized pillar[5]arenes, *Organic Chemistry Frontiers*, 2019, 6, 603-610.

- 731.** Al-Azemi, T. F.; Vinodh, M.; Alipour, F. H.; Mohamod, A. A.; Synthesis, functionalization, and isolation of planar-chiral pillar[5]arenes with bulky substituents using a chiral derivatization agent, *RSC Advances*, 2019, 9, 23295-23301.
- 732.** Assavapanumat, S.; Ketkaew, M.; Kuhn, A.; Wattanakit, C.; Synthesis, characterization and electrochemical applications of chiral imprinted mesoporous Ni surfaces, *Journal of the American Chemical Society*, 2019, 141, 18870-18876.
- 733.** Balachandran, A. L.; Athira, C. S.; Deepthi, A.; Jayasree, E. G.; A convenient synthesis of 2, 5-diaroyl-4-hydroxy cyclopent-2-enones incorporating aromatic and heteroaromatic moieties, *Synthetic Communications*, 2019, 49, 3401-3411.
- 734.** Chang, X.; Sun, X.-S.; Che, C.; Hu, Y.-Z.; Tao, H.-Y.; Wang, C.-J.; Copper(I)-catalyzed kinetic resolution of exo-3-oxodicyclopentadienes and endo-3-oxodicyclopentadiene, *Organic Letters*, 2019, 21, 1191-1196.
- 735.** Cleary, S. E.; Hensinger, M. J.; Qin, Z.-X.; Hong, X.; Brewer, M.; Migratory aptitudes in rearrangements of destabilized vinyl cations, *Journal of Organic Chemistry*, 2019, 84, 15154-15164.
- 736.** Gallagher, A. G.; Tian, H.; Torres-Herrera, O. A.; Yin, S.; Xie, A.; Lange, D. M.; Wilson, J. K.; Mueller, L. G.; Gau, M. R.; Carroll, P. J.; Martinez-Solorio, D.; Access to highly functionalized cyclopentenones via diastereoselective Pauson–Khand Reaction of siloxy-tethered 1, 7-enynes, *Organic Letters*, 2019, 21, 8646-8651.
- 737.** Han, Y.; Zhao, Y.; Ma, S.; Rhodium-catalyzed Pauson-Khand-type cyclization of 1, 5-allene-alkynes-a chirality transfer strategy for optically active bicyclic ketones, *Chemistry - A European Journal*, 2019, 25, 9529-9533.
- 738.** Hong, Y.; Jarrige, L.; Harms, K.; Meggers, E.; Chiral-at-iron catalyst: expanding the chemical space for asymmetric earth-abundant metal catalysis, *Journal of the American Chemical Society*, 2019, 141, 4569-4572.
- 739.** Hu, J.-M.; Zhang, J.-Q.; Sun, B.-B.; Chen, J.-B.; Yu, J.-Q.; Yang, X.-P.; Lv, H.-P.; Wang, Z.; Wang, X.-W.; Chiral N-heterocyclic-carbene-catalyzed cascade asymmetric desymmetrization of cyclopentenediones with enals: access to optically active 1, 3-indandione derivatives, *Organic Letters*, 2019, 21, 8582-8586 .
- 740.** Kamishima, T.; Suzuki, M.; Aoyagi, S.; Watanabe, T.; Koseki, Y.; Kasai, H.; A facile synthesis of (+)/(-)-pentenomycin I and analogs, and their antimicrobial evaluation, *Tetrahedron Letters*, 2019, 60, 1375-1378.
- 741.** Komatsuki, K.; Kozuma, A.; Saito, K.; Yamada, T.; Decarboxylative Nazarov cyclization-based chirality transfer for asymmetric synthesis of 2-cyclopentenones, *Organic Letters*, 2019, 21, 6628-6632.
- 742.** Liou, Y.-C.; Su, Y.-H.; Ku, K.-C.; Edukondalu, A.; Lin, C.-K.; Ke, Y.-S.; Karanam, P.; Lee, C.-J.; Lin, W.; Organophosphane-promoted synthesis of functionalized α , β -unsaturated alkenes and furanones via direct β -acylation, *Organic Letters*, 2019, 21, 8339-

743. Lvov, A. G.; Zakharov, A. V.; Lyssenko, K. A.; Kachala, V. V.; Shirinian, V. Z.; Dialkylation of ethyl 4-(het)aryl-3-oxobutanoates as a route to 5-(2-oxoethyl)cyclopentenones, *Synlett*, 2019, 30, 1321-1323.
744. Ma, K.; Martin, B. S.; Yin, X.; Dai, M.; Natural product syntheses via carbonylative cyclizations, *Natural Product Reports*, 2019, 36, 174-219.
745. Mohamed, B. S.; Peyrottes, S.; Uttaro, J.-P.; Mathe, C.; Straightforward chemical desymmetrisation of *cis*-(\pm)-4-O-protected-cyclopent-2-enol using resolving agents on column chromatography, *Beilstein Archives*, 2019, 201998, 7 pp.
746. Ouyang, J.; Kennemur, J. L.; De, C. K.; Farès, C.; List, B.; Strong and confined acids enable a catalytic asymmetric Nazarov cyclization of simple divinyl ketones, *Journal of the American Chemical Society*, 2019, 141, 3414-3418.
747. Pantin, M.; Bodinier, F.; Saillour, J.; Youssouf, Y. M.; Boeda, F.; Pearson-Long, M. S. M.; Bertus, P.; Convenient and easy access to 2-hydroxycyclopent-2-enones from acylcyanohydrins, *Tetrahedron*, 2019, 75, 4657-4662.
748. Peng, J.-B.; Wu, F.-P.; Wu, X.-F.; First-row transition-metal-catalyzed carbonylative transformations of carbon electrophiles, *Chemical Reviews*, 2019, 119, 2090-2127.
749. Simonetti, S. O.; Pellegrinet, S. C.; asymmetric organocatalytic C-C bond forming reactions with organoboron compounds: A mechanistic survey, *European Journal of Organic Chemistry*, 2019, 2019, 2956-2970.
750. Vömel, L. T.; PhD thesis, Die Kinetik Der Piancatelli-Umlagerung, 2019, Aachen University, Germany.
751. Wei, Z.; Zhang, J.; Yang, H.; Jiang, G.; Catalytic asymmetric cascade cyclization for constructing three contiguous stereocenters in pyrrolobenzodiazepine-based cyclopentanones, *Organic Letters*, 2019, 21, 2790-2794.
752. Zou, S.; Gao, B.; Huang, Y.; Zhang, T.; Huang, H.; Palladium-catalyzed hydrocarbonylative cyclization of 1, 5-dienes, *Organic Letters*, 2019, 21, 6333-6336.
753. Zurawinski, R.; Lukasik, B.; Concise synthesis of a new chiral cyclopentenone building block for prostaglandins and their derivatives, *European Journal of Organic Chemistry*, 2019, 2019, 2612-2620.
754. Żurawiński, R.; PhD Thesis, Fosfoniany jako reagenty i bloki budulcowe w syntezie związków biologicznie czynnych, 2019, Centrum Badań Molekularnych Makromolekularnych, PAN, Łódź, Poland.
755. Balachandran, A. L.; Deepthi, A.; Suneesh, C.; Tetrasubstituted cyclopentenone-based fluorescent chemosensors for the selective detection of Fe³⁺ and Cu²⁺ ions, *Luminescence*, 2020, 35, 62-68.

- 756.** Beletskaya, I. P.; Narjera, C.; Yus, M.; Chemodivergent reactions, Chemical Society Reviews, 2020, 49, 7101-7166.
- 757.** Cao, Z.-H.; Wang, Y.-H.; Kalita, S. J.; Schneider, U.; Huang, Y.-Y.; Phosphine-catalyzed [4+1] cycloadditions of allenes with methyl ketimines, enamines, and a primary amine, Angewandte Chemie International Edition, 2020, 59, 1884-1890.
- 758.** Hensinger, M. J.; Dodge, N. J.; Brewer, M.; Substituted α -alkylidene cyclopentenones via the intramolecular reaction of vinyl cations with alkenes, Organic Letters, 2020, 22, 497-500.
- 759.** Innocenti, R.; Lenci, E.; Menchi, G.; Trabocchi, A.; Combination of multicomponent KA2 and Pauson–Khand reactions: short synthesis of spirocyclic pyrrolocyclopentenones, Beilstein Journal of Organic Chemistry, 2020, 16, 200-211.
- 760.** Innocenti, Riccardo; PhD Thesis, Diversity-oriented synthesis of new chemical entities exploiting carbonyl-coupling reactions, 2020, Universitá degli studi Firenze, Florence, Italy.
- 761.** Jang, Y.; Lindsay, V. N. G.; Synthesis of Cyclopentenones with Reverse Pauson-Khand Regiocontrol via Ni-Catalyzed C–C Activation of Cyclopropanone, Organic Letters, 2020, 22, 8872-8876.
- 762.** Jesikiewicz, L. T.; PhD Thesis, Ligand effects on reactivity and selectivity of transition-metal catalyzed asymmetric C–C and C–N bond forming reactions, 2020, University of Pittsburgh, USA.
- 763.** Jing, C.; Aggarwal, V. K.; Total synthesis of thromboxane B₂ via a key bicyclic enal intermediate, Organic Letters, 2020, 22, 6505-6509.
- 764.** Kalaitzakis, D.; Sofiadis, M.; Tsopanakis, V.; Montagnon, T.; Vassilikogiannakis, G.; Merging singlet-oxygen induced furan oxidations with organocatalysis: synthesis of enantiopure cyclopentanones and hydrindanes, Organic and Biomolecular Chemistry, 2020, 18, 2817-2822.
- 765.** Kozuma, A.; Komatsuki, K.; Saito, K.; Yamada, T.; Thermal decarboxylative Nazarov cyclization of cyclic enol carbonates involving chirality transfer, Chemistry Letters, 2020, 49, 60-63.
- 766.** Lee, Y. H.; Denton, E. H.; Morandi, B.; Modular cyclopentenone synthesis through the catalytic molecular shuffling of unsaturated acid chlorides and alkynes, Journal of the American Chemical Society, 2020, 142, 20948-20955.
- 767.** Leur's, D.; The Nazarov Cyclization, Synform, 2020, A43-A49.
- 768.** Li, X.; Zhao, Z.-B.; Chen, M.-W.; Wu, B.; Wang, H.; Yub, C.-B.; Zhoua, Y.-G.; Palladium-catalyzed asymmetric hydrogenation of 2-aryl cyclic ketones for the synthesis of trans cycloalkanols through dynamic kinetic resolution under acidic conditions, Chemical Communications, 2020, 56, 5815-5818.

- 769.** Meyer, H.-P.; Werbitzky, O.; Development of Swiss biotechnology beyond the biopharmaceutical sector. In memoriam Prof. Dr. Oreste Ghisalba (1946–2018), *Chimia*, 2020, 74, 345-359.
- 770.** Nejrotti, S.; Iannicelli, M.; Jamil, S. S.; Arnodo, D.; Blangetti, M.; Prandi, C.; Natural deep eutectic solvents as an efficient and reusable active system for the Nazarov cyclization, *Green Chemistry*, 2020, 22, 110-117.
- 771.** Roldão, M. V.; Souza-Filho, L. G.; Almeida, W. P.; Coelho, F.; A straightforward approach to the synthesis of disubstituted cyclopentenones, *European Journal of Organic Chemistry*, 2020, 2020, 1637-1651.
- 772.** Schober, L.; Sako, M.; Takizawa, S.; Gröger, H.; Sasai, H.; Catalytic and enantioselective oxa-Piancatelli reaction using chiral vanadium complex, *Chemical Communications*, 2020, 56, 10151-10154.
- 773.** Shaitanova, E. N.; Gerus, I. I.; Balabon, O. A.; Ivasyshyn, V. E.; Tarasenko, K. V.; Daniliuc, C. G.; Haufe, G.; Synthesis of fluorine-containing 3-aminocyclopent-2-enones via intramolecular cyclization, *European Journal of Organic Chemistry*, 2020, 2020, 7156-7163.
- 774.** Teimouri, M. B.; Heydari, M.; Mohammadi, K.; Substrate-controlled selectivity switch in a threecomponent reaction: sequential synthesis of spirooxazolidinedione-cyclopentenones and hydroxyl enaminobarbiturates in water, *RSC Advances*, 2020, 10, 13601-13610.
- 775.** Trost, B. M.; Shinde, A. H.; Zuo, Z.; Wang, Y.; Min, C.; Palladium-catalyzed regio-, enantio- and diastereoselective asymmetric [3+2] cycloaddition reactions: synthesis of chiral cyclopentyl phosphonates, *ACS Catalysis*, 2020, 10, 1969-1975.
- 776.** Valiullina, Z. R.; Ivanova, N. A.; Lobov, A. N.; Miftakhov, M. S.; Regioselective intermolecular cyclization of methyl (E)-3-[(4S, 5S)-5-acetyl-2, 2-dimethyl-1, 3-dioxolan-4-yl)]prop-2-enoate, *Russian Journal of Organic Chemistry*, 2020, 56, 2043-2047.
- 777.** Wang, K.; Jiang, C.; Zhang, Z.; Han, C.; Wang, X.; Li, Y.; Chen, K.; Zhao, J.; Cut and sew: Benzofuran-ring-opening enabled cyclopentenone ring formation, *Chemical Communications*, 2020, 56, 12817-12820.
- 778.** Xu, L.; Yang, Q.; Zhong, S.; Li, H.; Tang, Y.; Cai, Y.; Ln(III)/chiral brønsted acid catalyzed asymmetric cascade ring opening/aza-Piancatelli rearrangement of D–A cyclopropanes, *Organic Letters*, 2020, 22, 9016-9021.
- 779.** Zhang, S.; Neumann, H.; Beller, M.; Synthesis of α , β -unsaturated carbonyl compounds by carbonylation reactions, *Chemical Society Reviews*, 2020, 49, 3187-3210.
- 780.** Borisov, D. D.; Chermashentsev, G. R.; Novikov, R. A.; Tomilov, Y. V.; Coupling of styrylmalonates with furan and benzofuran carbaldehydes: synthesis and chemistry of substituted (4-oxocyclopent-2-enyl)malonates, *The Journal of Organic Chemistry*, 2021, 86, 8489-8499.

- 781.** Burrows, L. C.; Jesikiewicz, L. T.; Liu, P.; Brummond, K. M.; Mechanism and origins of enantioselectivity in the Rh(I)-catalyzed Pauson–Khand reaction: comparison of bidentate and monodentate chiral ligands, *ACS Catalysis*, 2021, 11, 323-336.
- 782.** Cao, J.; Hu, M.-Y.; Liu, S.-Y.; Zhang, X.-Y.; Zhu, S.-F.; Zhou, Q.-L.; Enantioselective silicon-directed Nazarov cyclization, *Journal of the American Chemical Society*, 2021, 143, 6962-6968.
- 783.** Chada, R. R.; Kajare, R. C.; Bhandari, M. C.; Mohammed, S. Z.; Khatravath, M.; Warudikar, K.; Punna, N.; Facile access to [1, 2]-oxazine derivatives via annulations of aminoxy-tethered 1, 7-enynes, *Organic and Biomolecular Chemistry*, 2021, 19, 809-821.
- 784.** Chen, Z.; Kong, X.; Niu, S.; Yang, S.; Liu, J.; Chen, B.; Luo, B.; Zhou, C.; Ding, C.; Fang, X.; N-Heterocyclic carbene-catalyzed asymmetric synthesis of cyclopentenones, *Organic Letters*, 2021, 23, 3403-3408.
- 785.** De, S. K.; Applied Organic Chemistry. Reaction Mechanisms and Experimental Procedures in Medicinal Chemistry, 2021, Wiley-VCH GmbH, Weinheim, Germany, Chapter 4, Miscellaneous Reactions, pp. 161-292.
- 786.** Ditfe, T.; Bette, E.; Sultani, H. N.; Otto, A.; Wessjohann, L. A.; Arnold, N.; Westermann, B.; Synthesis and biological evaluation of highly potent fungicidal deoxy-Hygrophorones, *European Journal of Organic Chemistry*, 2021, 2021, 3827-3836.
- 787.** Jagadeesh, C.; Mondal, B.; Pramanik, S.; Das, D.; Saha, J.; Unprecedented reactivity of γ -amino cyclopentenone enables diversity-oriented access to functionalized indoles and indole-annulated ring structures, *Angewandte Chemie International Edition*, 2021, 60, 8808-8812.
- 788.** Jang, Y.; PhD thesis, Synthesis of 1-sulfonylcyclopropanols and their application in new chemical transformations as powerful cyclopropanone equivalents, 2021, North Carolina State University, North Carolina, USA.
- 789.** Ma, D.; Hu, N.; Ao, J.; Zang, S.; Yu, G.; Guangxin Liang, Pauson-Khand reactions with concomitant C–O bond cleavage for the preparation of 5, 5-, 6- and 5, 7-bicyclic ring systems, *Advanced Synthesis and Catalysis*, 2021, 363, 1887-1891.
- 790.** McDaniel, J.; Farley, C. A.; Ramirez, A.; Sandhu, B.; Sarjeant, A.; Shi, Q.; Han, A.; Gallagher, W. P.; Hynes Jr., J.; Dhar, T. G. M.; Gonzalez-Bobes, F.; Coombs, J. R.; Marcoux, D.; Discovery of annulating reagents enabling the one-step and highly stereoselective synthesis of cyclopentyl and cyclohexyl cores, *Organic Letters*, 2021, 23, 60-65.
- 791.** Shao, P.; Yu, T.; Lu, H.; Xu, P.-F.; Wei, H.; Regiodivergent access to 2- or 3- substituted indanones: catalyst-controlled carboacylation via C-C bond activation, *CCS Chemistry*, 2021, 3, 1862-1871.
- 792.** Tu, M.-S.; Chen, K.-W.; Wu, P.; Zhang, Y.-C.; Liu, X.-Q.; Shi, F.; Advances in organocatalytic asymmetric reactions of vinylindoles: powerful access to enantioenriched

indole derivatives, *Organic Chemistry Frontiers*, 2021, 8, 2643-2672.

793. Wang, M.; Zhang, H.; Synthesis of framework structure of guaiane, *Chinese Journal of Organic Chemistry*, 2021, 41, 1739-1743.
794. Wang, X.; Li, D.; Zhang, J.; Gong, J.; Fu, J.; Yang, Z.; A synthetic route to the core structure of (-)-retigeranic acid A, *Organic Letters*, 2021, 23, 5092-5097.
795. Xiao, J.; Xu, H.; Huo, X.; Zhang, W.; Ma, S.; One stone two birds – enantioselective bimetallic catalysis for α -amino acid derivatives with an allene unit, *Chinese Journal of Chemistry*, 2021, 39, 1958-1964.
796. Xu, L.; Zhong, S.; Yang, Q.; Wei, J.; Zou, J.; Li, H.; Cai, Y.; Catalytic asymmetric radical-mediated three-component Piancatelli-type rearrangement of furylalkenes, *ACS Catalysis*, 2021, 11, 10198–10207.
797. Yang, Z.; Navigating the Pauson–Khand reaction in total syntheses of complex natural products, *Accounts of Chemical Research*, 2021, • Z. Yang, Navigating the Pauson–Khand reaction in total syntheses of complex natural products, *Acc. Chem. Res.* 2021, 54, 556-568..
798. Yu, S.; Hong, C.; Liu, Z.; Zhang, Y.; Synthesis of cyclopentenones through rhodium-catalyzed C–H annulation of acrylic acids with formaldehyde and malonates, *Organic Letters*, 2021, 23, 5054-5059.
799. Zhang, Z.; Han, H.; Wang, L.; Bu, Z.; Xie, Y.; Wang, Q.; Construction of bridged polycycles through dearomatization strategies, *Organic and Biomolecular Chemistry*, 2021, 19, 3960-3982.
800. Zhou, W.; Voituriez, A.; Synthesis of cyclopentenones with C4-quaternary stereocenters via stereospecific [3, 3]-sigmatropic rearrangement and applications in total synthesis of sesquiterpenoids, *Journal of the American Chemical Society*, 2021, 143, 17348-17353.
801. Zhu, H.; Zheng, H.; Zhang, J.; Feng, J.; Kong, L.; Zhang, F.; Xue, X.-S.; Zhu, G.; Solvent-controlled photocatalytic divergent cyclization of alkynyl aldehydes: access to cyclopentenones and dihydropyranols, *Chemical Science*, 2021, 12, 11420-11426.

Gawali, V., Simeonov, S, Drescher, M., Knott, T., Scheel, O., Kudolo, J., Kählig, H., Hochegger, U., Roller, A., Todt, H., Maulide, N. C2-modified Sparteine derivatives are a new class of potentially long-acting Na channel blockers. *ChemMedChem*, 2017, 12, 1819 –1822.

IIumupa ce 6:

802. Hu, X. N.; Shen, T. L.; Cai, D. C.; Zheng, J. F.; Huang, P. Q. The iridium-catalysed reductive coupling reaction of tertiary lactams/amides with isocyanoacetates. *Organic Chemistry Frontiers*, 2018, 5, 2051-2056.
803. Huang, P. Q. Direct Transformations of Amides: Tactics and Recent Progress. *Acta*

Chimica Sinica, 2018, 76, 357-365.

- 804.** Rogova, T.; Gabriel, P.; Zavitsanou, S.; Leitch, J. A.; Duarte, F.; Dixon, D. J.; Reverse Polarity Reductive Functionalization of Tertiary Amides via a Dual Iridium-Catalyzed Hydrosilylation and Single Electron Transfer Strategy, ACS Catalysis, 2020, 10, 19, 11438-11447.
- 805.** Tinoush, B.; Shirdel, I.; Wink, M.; Phytochemicals: Potential Lead Molecules for MDR Reversal, Frontiers in Pharmacology, 2020, 11, 832.

Vicente, A., Coelho, J., Simeonov, S., Lazarova, H., Popova, M., Afonso, C.. Oxidation of 5-Chloromethylfurfural (CMF) to 2,5-Diformylfuran (DFF). Molecules, 2017, 22, 2, 329.

Hlumupa ce 6:

- 806.** Ahmed, Suleiman, Synthesis, characterisation and catalytic applications of novel iron N-heterocyclic carbenes immobilised on renewable resources. PhD thesis, University of York,
- 807.** Kucherov, F. A., Romashov, L. V., Galkin, K. I., Ananikov, V. P. Chemical Transformations of Biomass-Derived C6-Furanic Platform Chemicals for Sustainable Energy Research, Materials Science, and Synthetic Building Blocks. ACS Sustainable Chemistry and Engineering, 2018, 6, 8064-8092.
- 808.** Kucherov, F.A., Romashov, L.V., Galkin, K.I., Ananikov, V.P., Chemical Transformations of Biomass-Derived C6-Furanic Platform Chemicals for Sustainable Energy Research, Materials Science, and Synthetic Building Blocks, ACS Sustainable Chemistry and Engineering 6 (7), pp. 8064-8092,
- 809.** Jia, W., J. Du, H. Liu, Y. Feng, Y. Sun, X. Tang, X. Zeng and L. Lin; An efficient approach to produce 2, 5-diformylfuran from 5-hydroxymethylfurfural using air as oxidant: Journal of Chemical Technology and Biotechnology, 2019, 94, 12, 3832-3838.
- 810.** Deshan, A.D.K., Atanda, L., Moghaddam, L., Rackemann, D.W., Beltramini, J., Doherty, W.O.S., Heterogeneous Catalytic Conversion of Sugars Into 2, 5-Furandicarboxylic Acid, Frontiers in Chemistry 2020, 8, Article number 659.
- 811.** Manila, Kaushik, R.D., Bhatt, N., Singh, J., Pal, A., Sharma, S.Rasayan, A kinetic spectrophotometric analysis of oxidation of a potential pollutant ortho aminophenol by potassium monopersulfate for its conversion into less toxic compound, Journal of Chemistry 2020, 13, 1424-1437.
- 812.** Pedro L. Arias, Juan A. Cecilia, Iñaki Gandarias, José Iglesias, Manuel López Granados, Rafael Mariscal, Gabriel Morales, Ramón Moreno-Tost, Pedro Maireles-Torres, Oxidation of lignocellulosic platform molecules to value-added chemicals using heterogeneous catalytic technologies, Catalysis Science & Technology, 2020, 10, 2721-2757,
- 813.** Anchan, H.N., Dutta, S., "Recent advances in the production and value addition of selected hydrophobic analogs of biomass-derived 5-(hydroxymethyl)furfural", Biomass Conversion

and Biorefinery, 2021, <https://doi.org/10.1007/s13399-021-01315-1>

- 814.** Saikia, K., Rathankumar, A.K., Kumar, P.S., Varjani, S., Nizar, M., Lenin, R., George, J., Vaidyanathan, V.K., "Recent advances in biotransformation of 5-Hydroxymethylfurfural: challenges and future aspects", Journal of Chemical Technology and Biotechnology, 2022, 97, 409–419.

Ravasco, J., Coelho, J., Simeonov, S., Afonso, C.. Bifunctional Cr³⁺ modified ion exchange resins as efficient reusable catalysts for the production and isolation of 5-hydroxymethylfurfural from glucose. RSC Advances, 2017, 7, 7555-7559.

Iltumupa ce e:

- 815.** Feng, Y.; Zuo, M.; Zeng, X.; Sun, Y.; Tang, X.; Lin, L. Preparation of 5-Hydroxymethylfurfural from Glucose. Progress in Chemistry, 2018, 30, 314-324.
- 816.** Jiang, N.; Qi, W.; Wu, Z.; Su, R.; He, Z. "One-pot" conversions of carbohydrates to 5-hydroxymethylfurfural using Sn-ceramic powder and hydrochloric acid. Catalysis Today, 2018, 302, 94-99.
- 817.** Malan, F. P.; Singleton, E.; Van Rooyen, P. H.; Conradie, J.; Landman, M. Base-free glucose dehydration catalysed by NHC-stabilised heterohalo cyclopentadienyl Cr(iii) complexes. New Journal of Chemistry, 2018, 42, 19193-19204.
- 818.** Musolino, M.; Andraos, J.; Aricò, F. An Easy Scalable Approach to HMF Employing DMC as Reaction Media: Reaction Optimization and Comparative Environmental Assessment. ChemistrySelect, 2018, 3, 2359-2365.
- 819.** Feng, Y., G. Yan, T. Wang, W. Jia, X. Zeng, J. Sperry, Y. Sun, X. Tang, T. Lei and L. Lin; Synthesis of MCM-41-Supported Metal Catalysts in Deep Eutectic Solvent for the Conversion of Carbohydrates into 5-Hydroxymethylfurfural: ChemSusChem, 2019, 12, 5, 978-982.
- 820.** Feng, Y., M. Zuo, T. Wang, W. Jia, X. Zhao, X. Zeng, Y. Sun, X. Tang, T. Lei and L. Lin; Efficient synthesis of glucose into 5-hydroxymethylfurfural with SO₄²⁻/ZrO₂ modified H⁺ zeolites in different solvent systems: Journal of the Taiwan Institute of Chemical Engineers, 2019, 96, 431-438.
- 821.** Ginés-Molina, M. J., J. A. Cecilia, C. García-Sancho, R. Moreno-Tost and P. Maireles-Torres (2019). Use of ion-exchange resins in dehydration reactions. Applications of Ion Exchange Materials in Chemical and Food Industries, 1-18, DOI: 10.1007/978-3-030-06085-5_1
- 822.** Portillo Perez, G., A. Mukherjee and M. J. Dumont; Insights into HMF catalysis: Journal of Industrial and Engineering Chemistry, 2019, 70, 1-34.
- 823.** Xu, S., C. Yin, D. Pan, F. Hu, Y. Wu, Y. Miao, L. Gao and G. Xiao; Efficient conversion of glucose into 5-hydroxymethylfurfural using a bifunctional Fe³⁺ modified Amberlyst-15

catalyst: Sustainable Energy and Fuels, 2019, 3, 2, 390-395.

824. Zhang, T., W. Li, H. Xin, L. Jin and Q. Liu; Production of HMF from glucose using an Al³⁺-promoted acidic phenol-formaldehyde resin catalyst: Catalysis Communications, 2019, 124, 56-61.
825. Lucas, N.; Nagpure, A. S.; Gurrala, L.; Gogoi, P.; Chilukuri, S.; Efficacy of clay catalysts for the dehydration of fructose to 5-hydroxymethyl furfural in biphasic medium, Journal of Porous Materials, 2020, 27, 6, 1691-1700.
826. Muranaka, Y.; Matsubara, K.; Maki, T.; Asano, S.; Nakagawa, H.; Mae, K.; 5-Hydroxymethylfurfural Synthesis from Monosaccharides by a Biphasic Reaction-Extraction System Using a Microreactor and Extractor, ACS Omega, 2020, 5, 16, 9384–9390.
827. Zhang, T.; Wei, H.; Xiao, H.; Li, W.; Jin, Y.; Wei, W.; Wu, S.; Advance in constructing acid catalyst-solvent combinations for efficient transformation of glucose into 5-Hydroxymethylfurfural, Molecular Catalysis, 2020, 498, 111254.
828. Hosseini, M. S.; Masteri-Farahani, M.; Phenyl sulfonic acid functionalized graphene-based materials: Synthetic approaches and applications in organic reactions, Tetrahedron, 2021, 86, 132083.
829. Li, X.; Cao, J.; Nawaz, M. A.; Liu, D.; Synergy of Lewis and Broensted acid sites for polyoxymethylene dimethyl ether synthesis from methanol and formaldehyde solution over Zr⁴⁺ modified sulfonated resin, Fuel, 2021, 289, 119867.
830. Roy Choudhury, S.; Chakraborty, R.; Intensified wheat husk conversion employing energy-efficient hybrid electromagnetic radiations for production of fermentable sugar: process optimization and life cycle assessment, Environmental Science and Pollution Research, 2021, 28, 42, 58902-58914.
831. Tempelman, C. H. L.; Oozeerally, R.; Degirmenci, V.; Heterogeneous catalysts for the conversion of glucose into 5-hydroxymethyl furfural, Catalysts, 2021, 11, 7, 861.

Gomes, R., Mitrev, Y., Simeonov, S., Afonso, C.. Going Beyond the Limits of the Biorenewable Platform: Sodium Dithionite-Promoted Stabilization of 5-Hydroxymethylfurfural. ChemSusChem, 2018, 11, 1612 –1616.

IHumupa ce 8:

832. Cheng, A.-D.; Shi, S.-S.; Li, Y.; Zong, M.-H.; Li, N., Biocatalytic Oxidation of Biobased Furan Aldehydes: Comparison of Toxicity and Inhibition of Furans toward a Whole-Cell Biocatalyst. ACS Sustainable Chemistry & Engineering 2020, 8, 3, 1437–1444.
833. Fan, W., C. Verrier, Y. Queneau and F. Popowycz; 5-hydroxymethylfurfural (HMF) in organic synthesis: A review of its recent applications towards fine chemicals: Current Organic Synthesis, 2019, 16, 4, 583-614.

- 834.** Fan, W.; HMF in multicomponent reactions : Efficient routes towards novel fine chemicals. Theoretical and/or physical chemistry. Université de Lyon, PhD Thesis, 2019.
- 835.** Galkin, K. I. and V. P. Ananikov; Towards Improved Biorefinery Technologies: 5-Methylfurfural as a Versatile C 6 Platform for Biofuels Development: ChemSusChem, 2019, 12, 1, 185-189.
- 836.** Galkin, K. I. and V. P. Ananikov; When Will 5-Hydroxymethylfurfural, the “Sleeping Giant” of Sustainable Chemistry, Awaken?: ChemSusChem, 2019, 12, 13, 2976-2982.
- 837.** Kim, M., Y. Su, T. Aoshima, A. Fukuoka, E. J. M. Hensen and K. Nakajima; Effective Strategy for High-Yield Furan Dicarboxylate Production for Biobased Polyester Applications: ACS Catalysis, 2019, 9, 5, 4277-4285.
- 838.** Musolino, M., M. J. Ginés-Molina, R. Moreno-Tost and F. Aricò; Purolite-Catalyzed Etherification of 2, 5-Bis(hydroxymethyl)furan: A Systematic Study: ACS Sustainable Chemistry and Engineering, 2019, 7, 12, 10221-10226.
- 839.** Shi, S. S., X. Y. Zhang, M. H. Zong, C. F. Wang and N. Li; Selective synthesis of 2-furoic acid and 5-hydroxymethyl-2-furancarboxylic acid from bio-based furans by recombinant Escherichia coli cells: Molecular Catalysis, 2019, 469, 68-74.
- 840.** Wang, L., J. N. Tan, M. Ahmar and Y. Queneau; Solvent issues in the Baylis-Hillman reaction of 5-hydroxymethyl furfural (HMF) and 5-glucosyloxymethyl furfural (GMF). Towards no-solvent conditions: Pure and Applied Chemistry, 2019, 91, 7, 1149-1158.
- 841.** Zhu, M. M., X. L. Du, Y. Zhao, B. B. Mei, Q. Zhang, F. F. Sun, Z. Jiang, Y. M. Liu, H. Y. He and Y. Cao; Ring-Opening Transformation of 5-Hydroxymethylfurfural Using a Golden Single-Atomic-Site Palladium Catalyst: ACS Catalysis, 2019, 9, 7, 6212-6222.
- 842.** Galkin, K.I., Ananikov, V.P. The Increasing Value of Biomass: Moving From C6 Carbohydrates to Multifunctionalized Building Blocks via 5-(hydroxymethyl)furfural, ChemistryOpen, 2020, 9 (11), 1135-1148.
- 843.** Hu, L., Jiang, Y., Wu, Z., Wang, X., He, A., Xu, J., Xu, J., State-of-the-art advances and perspectives in the separation of biomass-derived 5-hydroxymethylfurfural, Journal of Cleaner Production, 2020, 276, art. no. 124219, .
- 844.** Pawar, H.S., Purification of 5-Hydroxymethyl Furfural from Side Products of Fructose Dehydration Reaction in a Green Solvent, ChemistrySelect, 2020, 5, 23, 6851-6855.
- 845.** Qu, Y., Zhao, Y., Xiong, S., Wang, C., Wang, S., Zhu, L., Ma, L., Conversion of Glucose into 5-Hydroxymethylfurfural and Levulinic Acid Catalyzed by SO₄²⁻/ZrO₂in a Biphasic Solvent System, Energy and Fuels, 2020, 34 (9), 11041-11049.
- 846.** Shen, G., Andrioletti, B., Queneau, Y., Furfural and 5-(hydroxymethyl)furfural: Two pivotal intermediates for bio-based chemistry, Current Opinion in Green and Sustainable Chemistry, 2020, 26, art. no. 100384,

- 847.** Thoma, C., Konnerth, J., Sailer-Kronlachner, W., Solt, P., Rosenau, T., van Herwijnen, H.W.G. Current Situation of the Challenging Scale-Up Development of Hydroxymethylfurfural Production., *ChemSusChem*, 2020, 13 (14), 3544-3564.
- 848.** Wang, X., Zhang, X.-Y., Zong, M.-H., Li, N., Sacrificial Substrate-Free Whole-Cell Biocatalysis for the Synthesis of 2, 5-Furandicarboxylic Acid by Engineered Escherichia coli, *ACS Sustainable Chemistry and Engineering*, 2020, 8 (11), pp. 4341-4345.
- 849.** Zhang, X.-Y., Wang, X., Li, N.-W., Guo, Z.-W., Zong, M.-H., Li, N., Furan Carboxylic Acids Production with High Productivity by Cofactor-engineered Whole-cell Biocatalysts, *ChemCatChem*, 2020, 12 (12), 3257-3264.
- 850.** Zhu, L., Fu, X., Hu, Y., Hu, C., Controlling the Reaction Networks for Efficient Conversion of Glucose into 5-Hydroxymethylfurfural, *ChemSusChem*, 2020, 13, 18, 4812-4832.
- 851.** Aricò, F. , Synthetic approaches to 2, 5-bis(hydroxymethyl)furan (BHMF): A stable bio-based diol, *Pure and Applied Chemistry*, 2021, 93, 5, 551-560.
- 852.** Hou, Q., Qi, X., Zhen, M., Qian, H., Nie, Y., Bai, C., Zhang, S., Bai, X., Ju, M. Biorefinery roadmap based on catalytic production and upgrading 5-hydroxymethylfurfural, *Green Chemistry*, 2021, 23, 1,119-231
- 853.** Kashparova, V.P., Chernysheva, D.V., Klushin, V.A., Andreeva, V.E., Kravchenko, O.A., Smirnova, N.V. Furan monomers and polymers from renewable plant biomass, *Russian Chemical Reviews*, 2021, 90, 6, 750-784.
- 854.** Sathicq, A.G., Annatelli, M., Abdullah, I., Romanelli, G., Aricò, F. Alkyl carbonate derivatives of furanics: A family of bio-based stable compounds *Sustainable Chemistry and Pharmacy*, 2021, 19, art. no. 100352
- 855.** Yan, C., Zheng, S., Chen, N., Yuan, S., Chen, Y., Li, B., Zhang, Y. Sulfated zirconia catalysts supported on mesoporous Mg-SBA-15 with different morphologies for highly efficient conversion of fructose to 5-hydroxymethylfurfural, *Microporous and Mesoporous Materials*, 2021, 328, 111507
- 856.** Zhao, Y., Lu, K., Xu, H., Zhu, L., Wang, S. A critical review of recent advances in the production of furfural and 5-hydroxymethylfurfural from lignocellulosic biomass through homogeneous catalytic hydrothermal conversion *Renewable and Sustainable Energy Reviews*, 2021, 139, 110706.

Cavaca, L, Rodrigues, C., Simeonov, S., Gomes, R., Coelho, J., Romanelli, G., Sathicq, A., Martínez, J., Afonso, C. Valorization of Oleuropein via Tunable Acid-Promoted Methanolysis. *ChemSusChem*, 2018, 11, 2300 –2305.

I lumupa ce 6:

- 857.** Sivakumar, G.; Uccella, N. A.; Gentile, L. Probing downstream olive biophenol secoiridoids. *International Journal of Molecular Sciences* 2018, 19, 2892.

- 858.** Voros, V., E. Drioli, C. Fonte and G. Szekely; Process Intensification via Continuous and Simultaneous Isolation of Antioxidants: An Upcycling Approach for Olive Leaf Waste: ACS Sustainable Chemistry and Engineering, 2019, 7, 22, 18444-18452.
- 859.** Angelis, A.; Michailidis, D.; Antoniadi, L.; Stathopoulos, P.; Tsantila, V.; Nuzillard, J. M.; Renault, J. H.; Skaltsounis, L. A.; Pilot continuous centrifugal liquid-liquid extraction of extra virgin olive oil biophenols and gram-scale recovery of pure oleocanthal, oleacein, MFOA, MFLA and hydroxytyrosol, Separation and Purification Technology, 2021, 255, 117692.
- 860.** Guo, S.; Liu, Y.; Sun, Y. P.; Pan, J.; Guan, W.; Li, X. M.; Wang, S. Y.; Algradi, A. M.; Yang, B. Y.; Kuang, H. X.; Four new secoiridoids from the stem barks of *Syringa reticulata* (Bl.) Hara, Natural Product Research, 2021, 27, 4957-4966.
- 861.** Huertas Alonso, A. J.; Gavahian, M.; Gonzales Serano, D. J.; Hadidi, M.; Salgado Ramos, M.; Prado, M.; Simirgiotis, M. J.; Barba, F. J.; Franco, D.; Lorenzo, J. M.; Moreno, A.; Valorization of Wastewater from Table Olives: NMR Identification of Antioxidant Phenolic Fraction and Microwave Single-Phase Reaction of Sugary Fraction, Antioxidants, 2021, 10, 11, 1652.
- 862.** Oliverio, M.; Nardi, M.; Di Gioia, M. L.; Costanzo, P.; Bonacci, S.; Mancuso, S.; Procopio, A.; Semi-synthesis as a tool for broadening the health applications of bioactive olive secoiridoids: A critical review, Natural Product Reports, 2021, 38, 3, 444-469.

Candeias, N., Assoah, B., Simeonov, S. Production and Synthetic Modifications of Shikimic Acid. Chemical Reviews, 2018, 118, 10458-10550.

IIumupa ce 6:

- 863.** Banachowicz, P. and S. Buda; Gram-scale carbasugar synthesis: Via intramolecular seleno - Michael/aldol reaction: RSC Advances, 2019, 9, 23, 12928-12935.
- 864.** Debruille, K., J. A. Smith and J. P. Quirino; Pressurized HotWater extraction and capillary electrophoresis for green and fast analysis of useful metabolites in plants: Molecules, 2019, 24, 13, 2349.
- 865.** Liu, Y. L., X. J. Wang, R. B. Wang, M. Li, W. R. Li, J. P. Zhang, X. Q. Bao, D. Zhang and S. G. Ma; New hexalactone derivatives and a pair of new oxaspiro-carbon epimeric glycosides from the fruits of *Illicium lanceolatum*: Bioorganic Chemistry, 2019, 91, 103113.
- 866.** Marchiosi, R., A. P. Ferro, A. V. G. Ramos, D. C. Baldoqui, R. P. Constantin, R. P. Constantin, W. D. dos Santos and O. Ferrarese-Filho; *Calophyllum brasiliense Cambess*: An alternative and promising source of shikimic acid: Sustainable Chemistry and Pharmacy, 2019, 14, 100188.
- 867.** Limbani, B.; Bera, S.; Mondal, D.; Synthetic Advancement of Neuraminidase Inhibitor “Tamiflu”, ChemistrySelect, 2020, 5, 20, 6083-6122.

- 868.** Men, J.; Dong, C.; Shi, H.; Hou, B.; Wang, R.; Cui, J.; Wang, L.; Methacrylic acid functionalized CPS microspheres to adsorb shikimic acid, *Journal of Macromolecular Science, Part A: Pure and Applied Chemistry*, 2020, 57, 1, 25-34.
- 869.** Patra, J. K.; Das, G.; Bose, S.; Banerjee, S.; Vishnuprasad, C. N.; del Pilar Rodriguez-Torres, M.; Shin, H. S.; Star anise (*Illicium verum*): Chemical compounds, antiviral properties, and clinical relevance, *Phytotherapy Research*, 2020, 34, 6, 1248-1267.
- 870.** Sato, N.; Kishida, M.; Nakano, M.; Hirata, Y.; Tanaka, T.; Metabolic Engineering of Shikimic Acid-Producing *Corynebacterium glutamicum* From Glucose and Cellobiose Retaining Its Phosphotransferase System Function and Pyruvate Kinase Activities, *Frontiers in Bioengineering and Biotechnology*, 2020, 8, 569406.
- 871.** Zhu, X. L.; Wang, L.; Luo, Y. Q.; He, Y. G.; Li, F. L.; Sun, M. M.; Liu, S. L.; Shi, X. X.; Efficient and Highly Stereoselective Syntheses of (+)-proto-Quercitol and (-)-gala-Quercitol Starting from the Naturally Abundant (-)-Shikimic Acid, *ACS Omega*, 2020, 5, 4, 1813-1821.
- 872.** Bapu, T. D.; Nimasow, G.; An assessment of the population status of the threatened medicinal plant *Illicium griffithii* Hook.f. & Thomson in West Kameng District of Arunachal Pradesh, India, *Journal of Threatened Taxa*, 2021, 13, 1, 17504-17512.
- 873.** Chele, K. H.; Tinte, M. M.; Piater, L. A.; Dubery, I. A.; Tugizimana, F.; Soil salinity, a serious environmental issue and plant responses: A metabolomics perspective, *Metabolites*, 2021, 11, 11, 724.
- 874.** Gruenberg, M.; Irla, M.; Myllek, S.; Draths, K.; Characterization of two 3-deoxy-D-Arabino-Heptulosonate 7-phosphate synthases from *Bacillus methanolicus*, *Protein Expression and Purification*, 2021, 188, 105972.
- 875.** He, Y. G.; Huang, Y. K.; Xu, Z. L.; Xie, W. J.; Luo, Y. Q.; Li, F. L.; Zhu, X. L.; Shi, X. X.; Stereodivergent Syntheses of All Stereoisomers of (B€')-Shikimic Acid: Development of a Chiral Pool for the Diverse Polyhydroxy-cyclohexenoid (or -cyclohexanoid) Bioactive Molecules, *European Journal of Organic Chemistry*, 2021, 2021, 30, 4318-4332.
- 876.** Komolafe, K.; Komolafe, T. R.; Fatoki, T. H.; Akinmoladun, A. C.; Brai, B. I. C.; Olaleye, M. T.; Akindahunsi, A. A.; Coronavirus Disease 2019 and Herbal Therapy: Pertinent Issues Relating to Toxicity and Standardization of Phytopharmaceuticals, *Revista Brasileira de Farmacognosia*, 2021, 31, 2, 142-161.
- 877.** Pan, Z.; Zhu, Y.; Rong, J.; Mao, K.; Yang, D.; Zhang, T.; Xu, J.; Qiu, F.; Pan, J.; FeOOH imprinted nanorods based on boronate affinity surface imprinting for the separation of shikimic acid, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 2021, 622, 126639.
- 878.** Park, E.; Kim, H. J.; Seo, S. Y.; Lee, H. N.; Choi, S. S.; Lee, S. J.; Kim, E. S.; Shikimate metabolic pathway engineering in *corynebacterium glutamicum*, *Journal of Microbiology and Biotechnology*, 2021, 31, 9, 1305-1310.

- 879.** Zhu, X. L.; Luo, Y. Q.; Wang, L.; Huang, Y. K.; He, Y. G.; Xie, W. J.; Liu, S. L.; Shi, X. X.; Novel Stereoselective Syntheses of (+)-Streptol and (-)-1 -epi-Streptol Starting from Naturally Abundant (-)-Shikimic Acid, ACS Omega, 2021, 6, 26, 17103-17112.
- 880.** Zhu, Y.; Pan, Z.; Rong, J.; Mao, K.; Yang, D.; Zhang, T.; Xu, J.; Qiu, F.; Pan, J.; Boronate affinity surface imprinted polymers supported on dendritic fibrous silica for enhanced selective separation of shikimic acid via covalent binding, Journal of Molecular Liquids, 2021, 337, 116408.

Stanev, N., Bordado, J., Afonso, C., Simeonov, S. Solvent-Free Catalytic Self-Etherification of 5-Hydroxymethyl Furfural. ChemCatChem, 2018, 10, 5406–5409.

I lumupa ce e:

- 881.** Zhang, P.; Yang, J.; Hu, H.; Hu, D.; Gan, J.; Zhang, Y.; Chen, C.; Li, X.; Wang, L.; Zhang, J.; Catalytic self-etherification of 5-hydroxymethylfurfural to 5, 5?(oxy-bis(methylene))bis-2-furfural over zeolite catalysts: effect of pore structure and acidity, Catalysis Science and Technology, 2020, 10, 14, 4684-4692.

Simeonov, S., Ravutsov, M., Mihovilovic, M.. Biorefinery via Achmatowicz Rearrangement: Synthesis of Pentane-1,2,5-triol from Furfuryl Alcohol. ChemSusChem, 2019, 12, 2748 –2754.

I lumupa ce e:

- 882.** Attard, Thomas Michael; Clark, James Hanley; McElroy, Con Robert. "Recent developments in key biorefinery areas". Current Opinion in Green and Sustainable Chemistry 2020, 21, 64-74
- 883.** Yoshioka, Shota; Nimura, Sota; Naruto, Masayuki; Saito, Susumu. "Reaction of H₂ with mitochondria-relevant metabolites using a multifunctional molecular catalyst". Science Advances 2020, 6: eabc0274
- 884.** Darzina, M.; Lielpetere, A.; Jirgensons, A.; Torii-Type Electrosynthesis of O \pm , OI $^-$ Unsaturated Esters from Furfurylated Ethylene Glycols and Amino Alcohols, European Journal of Organic Chemistry, 2021, 2021, 29, 4224-4228.
- 885.** Tong, Z.; Li, X.; Dong, J.; Gao, R.; Deng, Q.; Wang, J.; Zeng, Z.; Zou, J. J.; Deng, S.; Adsorption Configuration-Determined Selective Hydrogenative Ring Opening and Ring Rearrangement of Furfural over Metal Phosphate, ACS Catalysis, 2021, 11, 11, 6406–6415.
- 886.** Xing, Q.; Hao, Z.; Hou, J.; Li, G.; Gao, Z.; Gou, J.; Li, C.; Yu, B.; Manganese = Catalyzed Achmatowicz Rearrangement Using Green Oxidant H₂O₂, Journal of Organic Chemistry, 2021, 86, 14, 9563-9586.

Simeonov, S., Lazarova, H., Marinova, M., Popova, M. Achmatowicz rearrangement enables hydrogenolysis-free gas-phase synthesis of pentane-1,2,5-triol from furfuryl alcohol. Green

Chemistry, 2019, 21, 5657-5664.

Ilumupa ce 6:

887. Iroegbu, A. O., Sadiku, E. R. Ray, S. S., Hamam, Y., Sustainable Chemicals: A Brief Survey of the Furans, *Chemistry Africa* 3, 481–496.
888. Padilla, R., Koranchalil, S., Nielsen, M., "Homogeneous Catalyzed Valorization of Furanics: A Sustainable Bridge to Fuels and Chemicals", *Catalysts*, 2021, 11, 1371.
889. Tong, Z., Li, X., Dong, J., Gao, R., Deng, Q., Wang, J., Zeng, Z., Zou, J.-J., Deng, S., "Adsorption Configuration-Determined Selective Hydrogenative Ring Opening and Ring Rearrangement of Furfural over Metal Phosphate", *ACS Catalysis*, 2021, 11, 11, 6406–6415.

Pardo Cuervo, O.H., Simeonov, S.P., Peixoto,A.F., Popova, M.D., Lazarova, H.I., Romanelli, G.P., Martínez, J.J., Freire, C., Afonso, C.A.M. Efficient Continuous Production of the Biofuel Additive 5-(t-Butoxymethyl) Furfural from 5-Hydroxymethylfurfural. *Energy Technology*, 2019, 7, 11, 1900780, DOI:10.1002/ente.201900780.

Ilumupa ce 6:

890. Freire, C., Pereira, C., Peixoto, A. F. et al., Hybrid/Doped Carbon-Based (Nano)materials for Advanced Applications: Eco-Sustainable Catalysis, Biomass Valorization, Energy Technologies & Smart Devices, *Boletin del Grupo Espanol del Carbon* 54, 12-26.
891. Omar M. Portilla-Zuñiga, José J. Martínez, Mónica Casella, Daniela I. Lick, Ángel G. Sathicq, Rafael Luque, Gustavo P. Romanelli, Etherification of 5-hydroxymethylfurfural using a heteropolyacid supported on a silica matrix, *Molecular Catalysis*, 2020, 494, 111125.
892. Averochkin, G.M., Gordeev, E.G., Skorobogatko, M.K., Kucherov, F.A., Ananikov, V.P., "Systematic Study of Aromatic-Ring-Targeted Cycloadditions of 5-Hydroxymethylfurfural Platform Chemicals" *ChemSusChem*, 2021, 14, 3110-3123.

Ravasco, J., Monteiro, C., Siopa, F., Trindade, A., Oble, J., Poli, G., Simeonov, S, Afonso, C.. Creating Diversity from Biomass: A Tandem Bio/Metal-Catalysis towards Chemoselective Synthesis of Densely Substituted Furans. *ChemSusChem*, 2019, 12, 20, 4629-4635.

Ilumupa ce 6:

893. Galkin, K. I.; Ananikov, V. P.; The Increasing Value of Biomass: Moving From C6 Carbohydrates to Multifunctionalized Building Blocks via 5-(hydroxymethyl)furfural, *ChemistryOpen*, 2020, 9, 11, 1135-1148.

- 894.** Guo, L.; Chen, Z.; Zhu, H.; Li, M.; Gu, Y.; Acid-catalyzed chemodivergent reactions of 2, 2-dimethoxyacetaldehyde and anilines, Chinese Chemical Letters, 2021, 32, 1419-1422.
- 895.** Karlinskii, B. Y.; Ananikov, V. P.; Catalytic C-H Functionalization of Unreactive Furan Cores in Bio-Derived Platform Chemicals, ChemSusChem, 2021, 14, 558–568.
- 896.** Karlinskii, B. Y.; Kostyukovich, A. Y.; Kucherov, F. A.; Galkin, K. I.; Kozlov, K. S.; Ananikov, V. P.; Directing-Group-Free, Carbonyl Group-Promoted Catalytic C-H Arylation of Bio-Based Furans, ACS Catalysis, 2020, 10, 19, 11466-11480.
- 897.** Averochkin, G. M.; Gordeev, E. G.; Skorobogatko, M. K.; Kucherov, F. A.; Ananikov, V. P.; Systematic Study of Aromatic-Ring-Targeted Cycloadditions of 5-Hydroxymethylfurfural Platform Chemicals, ChemSusChem, 2021, 14, 15, 3110-3123.
- 898.** Darzina, M.; Lielpetere, A.; Jirgensons, A.; Torii-Type Electrosynthesis of O \pm , OI- Unsaturated Esters from Furfurylated Ethylene Glycols and Amino Alcohols, European Journal of Organic Chemistry, 2021, 2021, 29, 4224-4228.
- 899.** Karlinskii, B. Y.; Ananikov, V. P.; Catalytic C β H Functionalization of Unreactive Furan Cores in Bio-Derived Platform Chemicals, ChemSusChem, 2021, 14, 2, 558-568, 10.1002/cssc.202002397
- 900.** Romashov, L. V.; Kozlov, K. S.; Skorobogatko, M. K.; Kostyukovich, A. Y.; Ananikov, V. P.; Atom-economic Approach to the Synthesis of O \pm -(Hetero)aryl-substituted Furan Derivatives from Biomass, Chemistry - An Asian Journal, 2021, 17, e20210122.
- 901.** Zhu, H.; Cai, Y.; Ma, S.; Futamura, Y.; Li, J.; Zhong, W.; Zhang, X.; Osada, H.; Zou, H.; Privileged Biorenewable Secologanin-Based Diversity-Oriented Synthesis for Pseudo-Natural Alkaloids: Uncovering Novel Neuroprotective and Antimalarial Frameworks, ChemSusChem, 2021, 14, 23, 5320-5327.