

## OPINION

**from prof. Ginka Atanasova Antova, PhD,**  
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on the materials submitted for the competition  
for the academic position of "Associate Professor"  
**at Institute of Organic Chemistry with Centre for Phytochemistry) (IOCCP), Bulgarian**  
**Academy of Sciences (BAS)**  
in Area of higher education: 4. Natural sciences, mathematics and informatics  
Professional field: 4.2. Chemical sciences  
Scientific specialty "Bioorganic chemistry, chemistry of natural and physiologically active substances"

In the competition for 'Associate professor', announced in the State Gazette, issue 53 of 25.06.2021, and on the website of IOCCP, BAS (Institute of Organic Chemistry with Centre for Phytochemistry), BAS, as a candidate applied Chief Assistant Professor Manol Hristov Ognyanov, PhD from the Laboratory of Biologically Active Substances - Plovdiv at the Institute of Organic Chemistry with Centre for Phytochemistry (IOCCP), BAS.

### **1. General presentation of the procedure and the candidate**

The only a candidate who has submitted documents for participation in the **announced competition** is Chief Assistant Professor Manol Hristov Ognyanov, PhD from the Laboratory of Biologically Active Substances – Plovdiv, at the Institute of Organic Chemistry with Centre for Phytochemistry (IOCCP), BAS.

The set of materials presented by Chief Assistant Professor Manol Hristov Ognyanov, PhD, on electronic media, is in accordance with the Regulations for the development of the academic staff of IOCCP, and meets the criteria of IOCCP-BAS to hold the academic position of "Associate Professor".

The candidate Chief Assistant Professor Manol Hristov Ognyanov, PhD has applied a total of 20 scientific papers, 5 of them are presented as an equivalent number of articles for a habilitation work, and the remaining 15 are under group of indicators "D". The distribution of scientific papers on the respective Q factors is as follows: articles with Q1 - a total of 6, with Q2 - 4, with Q3 - 2, with Q4 - 7 and 1 article with SJR, not falling into the Q category. A list of participations in scientific conferences is attached, as after achieving the academic position of "chief assistant professor" he has participated in 22 conferences with 30 scientific presentations. He has participated in a total of 27 scientific and applied research projects, and in 15 of them in the period after 2017. He was the leader of 2 projects, respectively in 2016 - 2017 and 2012 - 2014. Ognyanov, PhD participated in the organizing committee of the First International Conference on Bio-Antioxidants, 2017.

Chief Assistant Professor Manol Ognyanov has a Bachelor's and Master's degree in Biotechnology at the University of Food Technology, Plovdiv. In 2016 he defended a dissertation for the Educational and Scientific Degree "Doctor" in the doctoral program "Bioorganic Chemistry, Chemistry of Natural and Physiologically Active Substances".

### **2. General description of the candidate's work**



In the competition for "Associate Professor" Chief Assistant Professor Manol Ognyanov, PhD participates with a total production of **20** scientific publications, grouped as follows:

- *Publications in foreign scientific journals, equivalent to habilitation work* – **5** publications, **4** of which are in journals with *impact factor* (2 in Carbohydrate polymers with IF = 9.381 with quartile Q1, 1 in Food Hydrocolloids with IF = 9.147 with quartile Q1, and 1 in the International journal of polymer science with IF = 1.892 with quartile Q2) and **1** is in a journal with *impact rank* (Journal of pharmaceutical science and research with SJR - 0.153 with quartile Q3);

- *Publications in journals that are referenced and indexed in world-famous databases* – **15** publications, **7** of which are in journals with *impact factor* (3 in journals with IF with Q1, 3 in journals with IF with Q2, 1 in journals with IF with Q4), respectively **7** in journals with *impact rank* (1 with SJR with Q3, 6 with SJR with Q4) and **1** in magazine with impact rank (SJR), but not in Q category;

All publications submitted for the competition are in English and are in referenced and indexed journals. The results presented in the publications are a collective development, as in **4** of the publications Chief Assistant Professor Ognyanov is the first author, in **6** he is a second author, in **2** he is a third author, in **3** he is a fourth, in **1** - a fifth, in **3** he is a sixth, and in **1** he is an eighth author.

#### *- Citation of scientific production*

The candidate has worked purposefully, has accumulated significant results, which he has made available to a wide audience and has received recognition from a number of scientists abroad. The total number of submitted citations for the period 2017 - 2019 is **109**, of which **106** by foreign authors, as the presented citations are in scientific publications and monographs, referenced and indexed in world-famous databases with scientific information (WoS and Scopus). Chief Assistant Professor Ognyanov has an h-index 10.

Chief Assistant Professor Manol Ognyanov has met the national minimum requirements and the requirements of the Regulations for the development of the academic staff of IOCCP. The points indicated for each indicator are described in detail and are supported by evidence, and even for indicators **D** and **E** Chief Assistant Professor Ognyanov, PhD has exceeded the required points of the national minimum requirements of the Regulations for application of the Academic Staff Development Act of Republic of Bulgaria.

Compliance with national minimum requirements  
in a professional field 4.2. Chemical sciences

<b>Group of indicators</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>Total</b>
National minimum requirements	50	–	100	200	50	–	400
<b>Achievement</b>	<b>50</b>	<b>–</b>	<b>105</b>	<b>230</b>	<b>218</b>	<b>-</b>	<b>603</b>

Chief Assistant Professor Ognyanov has been the scientific supervisor of **2** graduates and the supervisor of **5** specializing post-graduate students in the project "Student Internships - Phase 1" and of **2** students from UFT, who conducted an undergraduate internship.

#### **Main contributions**

The scientific work of Chief Assistant Professor Manol Ognyanov, PhD is in the field of bioorganic chemistry and chemistry of natural substances. According to the presented scientific works of the candidate, it can be seen that the main contributions have a scientific and



scientific-applied nature. The contributions from the scientific work are mainly grouped in the following areas:

1. Study of the composition, structure, functional and biological properties of polysaccharides isolated from economically important plant species, medicinal plants, and wastes from their processing.

In this area, the quantitative content of polysaccharide components in the medicinal plant *Sideritis scardica* (Mursal tea) has been evaluated for the first time, and the isolated high molecular weight polysaccharide can be used in food products as a stabilizer and emulsifier.

The composition, structure and functional properties of polysaccharide complexes isolated from leeks, purslane, linden and lavender flowers, locust bean bio-flour, as well as plant cell cultures of medicinal plants and residues after freon and water distillation of calendula were studied. Isolated polysaccharides have been shown to have the potential for use in food and medicine.

2. Study of the chemical composition and antioxidant activity of medicinal plants, berries and vegetables, and discovering the opportunity for their application.

The phytochemical composition, stability and antioxidant stability of fruit extracts (rosehip, chokeberry, cornelian cherry, white beam), vegetables (pepper), medicinal plants (nettle, bladder campion (*Silene vulgaris*), water pepper, common centaury) and waste from the essential oil and brewing industry have been determined (milk thistle, rose, lavender, common balm, basil, yeast). The publications of Ognyanov, PhD in this area clearly show his scientific and applied achievements, namely the use of the obtained extracts in the development of functional foods enriched with biologically active substances, as the obtained products are characterized by certain dietary, therapeutic and prophylactic properties.

Chief Assistant Professor Manol Ognyanov, PhD has 52 participations in 41 conferences, most of which are national and held in Bulgaria with international participation, and 10 are international (1 - in Poland, 1 - in Mexico, 4 - in the Czech Republic (2016, 2018, 2019, 2020), 1 - in Romania, 1 - in Albania, 1 - in Turkey, 1 - in Macedonia).

### **3. Assessment of the candidate's personal contribution**

The publication of the research results in specialized renowned journals, their popularization at international conferences, and his participation in national, company projects and in projects with international participation are a recognition of the professional qualities of the candidate as a researcher. The recognition of Chief Assistant Professor Ognyanov in the scientific circles at home and abroad is confirmed by the large number of citations by foreign authors for the period 2017 - 2019.

### **4. Critical remarks and recommendations**

I have no critical remarks and recommendations to the candidate.

### **CONCLUSION**

The documents and materials submitted by Chief Assistant Professor Manol Hristov Ognyanov, PhD **meet all** the requirements of the Academic Staff Development Act of Republic of Bulgaria (ASDARB), the Implementation Regulations of the ASDARB, the Implementation regulations of the ASDARB of BAS, and the Regulations of IOCCP-BAS, as well of the profile of the announced competition.

The candidate in the competition has submitted a **sufficient number** of scientific papers published after the materials used in the defence of the Educational and Scientific Degree

‘Doctor’. The works of the candidate contain scientific and applied contributions, which have received international recognition and most of them are published in journals published by international publishers with high rang. The scientific qualification of Chief Assistant Professor Manol Hristov Ognyanov, PhD is **undoubted**. The research results achieved by Chief Assistant Professor Manol Hristov Ognyanov, PhD **fully** comply with the specific requirements of the Regulations of IOCCP-BAS for implementation of ASDARB.

After getting acquainted with the materials and scientific works presented in the competition, analysis of their significance, and the scientific, scientific-applied and applied contributions contained in them, I find it reasonable to give my **positive** assessment and **recommend** to the Scientific Jury to prepare a report-proposal to the Scientific Council of IOCCP-BAS for election of Chief Assistant Professor Manol Hristov Ognyanov, PhD for the academic position of ‘Associate Professor’ at IOCCP-BAS, in professional field 4.2. Chemical sciences, scientific specialty "Bioorganic chemistry, chemistry of natural and physiologically active substances“.

25.10. 2021

**Opinion prepared by:**

**Prof. Ginka Antova, PhD**