

OPINION

from Prof. Dr. Galia Kostova Madjarova from the Faculty of Chemistry and Pharmacy (FCP) at Sofia University "St. Kliment Ohridski", member of the scientific jury on an open procedure for the academic position "Associate Professor" in Professional field 4.2. Chemical sciences, (Solid state Chemistry), announced in State Gazette 65/28.07.2023.

Senior Assistant Prof. Veselina Tocheva Rangelova is the only candidate for the open position.

Veselina Rangelova obtained in 1996 her Master's degree in Chemistry, major "High purity substances and materials", from the Faculty of Chemistry of Sofia University "St. Kliment Ohridski". In 2002, under the supervision of Prof. DSc Tony Spassov, she defended her PhD thesis, which satisfies the requirements of **indicator A** of the minimal national requirements for occupying the position of "Associate Professor". In 2003, Dr. Rangelova was appointed as an assistant in the Department of Applied and Inorganic Chemistry of the FCP, where she still works.

The **indicator B** "habilitation thesis" is accomplished by presenting a monograph "MOFs. Storage of Gases in Porous Materials".

The **indicator Г** is covered with 12 publications (3 in Q1, 4 in Q2, 5 in Q4), total of 230 points exceeds the additional criteria set in the regulations of the FCP.

The **indicator Д** is achieved (348 points) by 174 citations for all publications. 48 citations were noticed on the articles included in the documents for this procedure.

The **indicator Ж** is achieved (155 points)
Points for indicators Д and Ж exceeds the additional criteria set in the regulations of the FCP.

Scientific Research activities:

Dr. Rangelova is a coauthor of 18 scientific publications in total, 174 citations (with excluded self-citations of all authors), one monograph and textbook and workbook for High school. She has h-index 5.

The scientific interests of Dr. Rangelova are in the field of opened position and are on a hot topics: materials with the potential to store hydrogen in the solid phase; catalytic decomposition of ammonium perchlorate, etc. Dr. Rangelova uses a rich set of experimental characterizations of the investigated of studied systems. The optimal conditions of obtaining and processing the metal alloys to maximize the hydrogen storage capacity have been established. New materials with catalytic activity on the decomposition of ammonium perchlorate, an important component for solid fuel combustion, have also been proposed. The monograph, written on 126

pages and citing 282 literature sources, has an overview character and presents the main characteristics of metal-organic frameworks materials for hydrogen storage, as well as strategies for improving the storage capacity. Dr. Rangelova's scientific contributions have an applied nature and enrich knowledge in the field. Dr. Rangelova was project coordinator of three and a participant in seven national scientific and educational projects.

Teaching activities:

Dr. Rangelova teaches in bachelor's and master's programs of the FCP. She teaches in practicum and part of the lectures on Inorganic chemical technologies; Water, air and soil purification technologies; Environmental Chemistry; Inorganic materials science; Metallography. All courses are related to the area of the opened position. Dr. Rangelova has extensive teaching experience in this scientific field. She is responsible for the internship of the undergraduates. Dr. Rangelova was the supervisor of one bachelor's and two master's successfully defended diploma theses. She is a respected teacher, and the work with the students finds positive feedback in the surveys that the students fill out at the end of each semester.

I know Veselina Rangelova as a responsible colleague who, in addition to everything said so far, spares no personal time and money to organize a number of charity campaigns in the FCP.

Opinion

The presented materials fully comply with all the requirements of the Regulations for the terms and conditions for acquiring scientific degrees and holding academic positions at SU "St. Kliment Ohridski", as well as the additional, recommended specific criteria for professional field 4.2 "Chemical Sciences" of the Faculty of Chemistry and Pharmacy. Based on the above, I consider that Ch. Assist. Prof. Dr. Veselina Tocheva Rangelova fully satisfies the conditions for the appointment of the academic position of "Associate Professor".

I confidently give my positive assessment and recommend to the Faculty Council of the Faculty of Chemistry and Pharmacy at Sofia University "St. Kliment Ohridski" to vote Dr. Veselina Rangelova to be appointed for academic position of "Associate Professor" in professional field 4.2 Chemical Sciences (Solid state Chemistry).

Sofia, November 20, 2023

Reviewer:

(Prof. Galia Madjarova)