



STATEMENT

by prof. Vassil Borissov Delchev, DSc,
from the Department of Physical chemistry, University of Plovdiv
on the materials deposited for the participation in the competition
for the academic position “associate professor”
at the University of Plovdiv “Paisii Hilendarski”

Field of higher education: 4: Natural sciences, mathematics and informatics

Professional area: 4.2. Chemical sciences

Scientific field: Inorganic Chemical Technology

Candidate: Chief Assist. Prof. PhD Irena Petrova Kostova – Dept. Chemical Technology,
University of Plovdiv

Competition announced in the State Gazette: issue 98/19.11.2024

For the needs of the Dept: Chemical Technology, Chemical Faculty, University of Plovdiv

Rector's order for the constitution of the Scientific jury: **РД-22-79/17.01.2025 г.**

Decision of the first meeting of the Scientific jury: **to write an academic statement.**

The only candidate for this competition is assist. prof. PhD Irena Kostova. The materials under the procedure of Dr. Kostova are presented in digital format (on CD) and include: 1) a request to the Rector of the University of Plovdiv for admission to the competition for academic position “associate professor”; 2) a CV in standard format; 3) diplomas for Master's degree (from 2011) and PhD (from 2016); 4) a complete list of scientific participations, list of materials on the procedure and a list of projects; 5) a declaration for originality and authenticity of scientific works; 6) a certificate of work experience; 7) a summary file of scientific works in English; 8) copies of articles for the competition; 9) other certificates and supporting materials.

Biographic information

Dr. Irena Kostova graduated from the Bachelor's degree in 2010, during study time she has got an additional professional qualification: Chemistry teacher. Immediately afterwards, the candidate has enrolled and successfully graduated from the Master's degree in Chemistry and Ecology, with a defence of a Diploma thesis. In the period 2012 – 2016, Dr. Kostova prepared her PhD thesis in the field of Inorganic chemical technology. She has defended her dissertation in 2016 and successfully acquired the Educational and scientific Degree ‘Doctor of Philosophy’ in the field of Technology of inorganic materials. In 2009 Dr. Kostova has worked as a chemist in “Asarel-medet” JSC – Panagurishte. In the period 2013 – 2014 she has been a post-graduate student at the Saskatchewan University in Canada, where she has dealt with a research in the field of synthesis and analysis of glass and glass ceramics. For three months period in 2019 Dr. Kostova has been a guest-researcher caring out scientific investigations in Quebec, Canada, where she has been going in 2023. Since 2015 she has been a lecturer in the Dept. Chemical technology at the University of Plovdiv, where she consecutively has occupied the academic positions “assistant professor” (2015 - 2017) and “chief assistant professor” (from 2017 until now).

Scientific and research work

The total number of the publications of Dr. Kostova is 35, the largest part (2/3) published in refereed scientific issues. Dr. Kostova deposited 23 scientific papers for the participation in the current competition for the academic position “associate professor”. However it is not clear whether some of them are not a part from earlier procedures, for example for the awarding of the

Educational and scientific Degree 'Doctor of Philosophy'. I hope this fact is taken into account by the candidate!

Five publications are declared for indicator B point 4, which are equivalent to habilitation work. One of the publications is published in Bulgarian issue (Bulgarian Chemical Communications). The candidate has declared 102 points for this indicator – according to the quartiles of the journals in which the publications are printed. Therefore for this indicator the minimum required number of points is fulfilled.

For indicator Г Dr. Kostova has presented one published book (point 6) that is based on her PhD thesis. For the current procedure for occupation of the academic position “associate professor” the candidate applies with 18 scientific publications. I expected to see the DOI identifiers for each paper to be able to check and access a given one rapidly in the global network! Furthermore it would be a good idea the quartiles of the journals to be presented where the publications are printed. For indicator Г Dr. Kostova has declared 304 points, which is with 104 more than the Minimal national requirements in the field. Twenty four points of the candidate are for point 9 of indicator Г – for the created model defended with a patent document. I would recommend the candidate to publish her scientific achievements in specialized editions of higher scientific impact, not in such as „NATO Science for Peace and Security”, which seems to be a subject of marginal military-aggressive organization.

The citations of Dr. Kostova are listed in one of the documents. The number of points calculated by the citations is 54 – four over the Minimum national requirements for the position applied. According to my fast check in the database Scopus (searching by Name and University – University of Plovdiv and Saskatchewan) I was able to find six documents with Hirsch index $h=1$.

Dr. Kostova has participated in 8 scientific projects (7 - Scientific fund at the University of Plovdiv, 1 – European Union) and two national programs “Young scientist and pos-doctoral students” (2018 – 2020).

I do not have any common scientific investigations and published papers with the candidate. As a colleague I can mention, that Dr. Kostova is a highly motivated scientist with deep knowledge in her research area. For several years she is a member of the Laboratory of roentgen diffraction under my leadership and I can say that Dr. Kostova actively works with the roentgen diffractometer for registration of diffraction patterns of samples of scientific interest.

Teaching activity of the candidate

According to the deposited certificate in the current documentation Dr. Kostova has more than 10 years of teaching experience in the Dept. of Chemical technology, Chemical faculty at the University of Plovdiv. She has given lecture courses with Bachelor students as follows: Chemical industry in Bulgaria, Chemical and pharmaceutical industry in Bulgaria, Inorganic chemical technology, and Material Science. Dr. Kostova has led laboratory exercises in 9 disciplines in the Dept. of Chemical technology, research practice and practicum with students. She is the advisor of diploma works of two students and a scientific consultant of two diploma works.

For the period 2015 until 2024 Dr. Kostova reported a total 3508 academic hours with students, which is more than the required minimum (1080 academic hours) in the additional requirements of the Chemical faculty at the University of Plovdiv for candidates for the academic position “associate professor”. The listed year by year academic hours showed, that the candidate is quite engaged with teaching activities, which are above the annual norm (360 academic hours) in the Chemical faculty at the University of Plovdiv

CONCLUSION. The materials under the current procedure meet the requirements of the Law for development of the academic staff and its regulations. The presented materials for the academic position “associate professor” show that the candidate assistant professor PhD Irena Kostova is a complete scientist in her professional area of research. I think that she is in condition to be a su-

pervisor of own research group, to formulate scientific problems, to participate in scientific discussions and to prepare scientific publications / announcements. Due to the aforementioned facts I give my **positive assessment** for the candidate and I recommend the Scientific jury to propose to the Faculty council of the Chemical faculty at the University of Plovdiv to elect assistant professor PhD Irena Petrova Kostova to the academic position “associate professor” in the field of higher education: 4: Natural sciences, mathematics and informatics; professional area 4.2. Chemical sciences; scientific field: Inorganic chemical technical technology

20.02.2025
Plovdiv

(Prof. DSc Vassil B. Delchev)