



To
The head of the scientific jury,
In accordance with an order
№ 338/01.07.2021
of the director of
the Institute of Chemical Engineering-BAS, Sofia

Review Report

By prof. Dr. Jordan Yankov Hristov, PhD, DSc.
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A report: concerning applications for a position of associate professor in section **4.2. Chemical Sciences (Unit operations in chemical and biochemical industries)** offered by the Institute of Chemical Engineering, BAS, Sofia, in accordance with an announcement published in State Gazette, N 37/07.05.2021 г.

On the formal procedure and documents applied:

The documents applied are by a sole candidate Dr, PhD. Dimiter Nikolaev Kolev. All documents are correctly assembled in accordance with the law of academic development of Republic of Bulgaria as the rule established in the Institute of Chemical Engineering, BAS, Sofia

Biographical data and professional development

Dr Dimiter Kolev was graduated Technical University, Sofia in 1988, as a master of science with specialization in Heat and mass transfer techniques. After successful defense he was awarded by a PhD degree in Chemical Engineering by the Institute of Chemical Engineering, BAS in 2005 . Since 2006 he is a part time assistant professor in the Mining University, Sofia, teaching courses on Combustion techniques and technologies, and Gas supply and thermal energy distribution.

Scientific Activities

Full text published articles

Dr. Kolev applied a list of publication arranged in accordance with the law of academic development t in Republic of Bulgaria and the rules of the Institute of Chemical Engineering, BAS, Sofia

- **Requirements A and B:** There are 7 publications (124 scores) as a habilitation thesis plus a PhD degree (50 scores). Totally, concerning these requirements the applicant has 174 scores.
- **In addition there 6 publications as follows:**

- **Requirements Г7-1:** Six (6) publications indexed in worldwide databases such as SCOPUS and Web of Science. The scores in accordance with these requirements are **87**.
- **Requirements Г7-2** (published book chapter or a contributed book) : no publications of such type are applied.
- **Requirement Г7-3** (Inventions, patents or useful models): **10 patents** applied with total **250 scores**.
- **Общо по показатели Г7 точките са 337.**

Totally, the scores corresponding to the requirements B and Г are **461**, which are above the minimum. It is worth noting that the applied scientific publications are less than 15 required (except publications related to the PhD thesis) but the 10 patents compensate this deficiency.

Citations:

Requirements Д: The list of citations contains **65** citations related to scientific articles and **21** citations related to the published patents. The total scores in this case are **218**.

Total rating in accordance with the rules of Inst. Chem. Eng, BAS = 50.465 scores

The sum of scores following all requirements is **679**, and in such a case the applicant satisfies the conditions imposed to the position of an associate professor.

Topics developed

The articles presented by Dr. Kolev can be arranged in the some directions, among them:

- Efficiency of packed bed columns related to heat and mass transfer operations.
- Technologies for waste heat fluxes recovery
- New constructions of lamellar heat exchangers
- Decontamination of waste gases
- Utilization of wastes by pyrolysis, precisely tires
- Bio-combustibles developed by bracketing of waste bio-products.

Teaching activities

Dr Kolev is part-time assistant professor in the Mining University, Sofia, giving lectures and performing seminars on:

- Combustion techniques and technologies : 20 h lectures and 13 h seminars/ 2006-2007, 2010-2011,2011-2012/
- Gas supply and thermal energy distribution : 20 h lectures and 13 h seminars / 2006-2007, 2010-2011,2011-2012/

In accordance with the common academic practice these are 318 (hours)

Expert and management activities

Doctor Kolev serves as expert for several domestic and international companies c working on waste gases utilization, waste materials and industrial design in Bulgaria. The

main directions in this field of activities are: utilization of waste materials and heat recovery from waste industrial streams

The complete analysis of both the scientific and teaching activities of Dr. Kolev indicates that he satisfies the requirements imposed by the law of academic development in Republic of Bulgaria and the rules of the Institute of Chemical Engineering, BAS, as well, for holding the position of an associate professor, as follows:

The scores in accordance with the general requirements of the law and the rules of the Institute of Chemical Engineering-BAS are:

♦ *scientific activity: minimum required 200, the applicant has 255 (50 scores required. - requirements A, 124 m. – requirements B, 337 m. – requirements Г, 218 m. – requirements Д,).*

♦ *teaching activity – 318 часа,*

♦ *Total scores require – 470, while the applicant has 619 scores.*

The complete scores of the activities of Dr. Kolev indicate that he satisfies all the requirements imposed and may hold the position of an associate professor following the article 24 of the law for academic development in Republic of Bulgaria.

Conclusion

The documents applied by Dr. Kolev allow suggesting his appointment as an associate professor in the Institute of Chemical Engineering, BAS, Sofia.

Thus, I may suggest Dr Kolev to be appointed as an associate professor of chemical Engineering, specialization 4.2. Chemical Sciences (Unit operations in Chemical and Biochemical technologies) in the Institute of Chemical Engineering, BAS, Sofia.

28. 08. 2021 г.

Prof. Dr Jordan Hristov, PhD, DSc.