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Your ref:

Our ref:

Belgrade-Vinca,

Letter of Recommendation

to support international recognition of candidate for the degree professor

Name of candidate:

Assoc. prof. RNDr. Adriana Zeleňáková, DrSc.

Professional relationship with candidate:

I have known Assoc. prof. Zeleňáková from 2010 from scientific works about nanosized materials. A. Zeleňáková works in area of magnetic nanoparticles and she focuses on study of magnetic properties, relaxation effects and magnetocaloric effects over these materials.

Scientific focus of candidate:

Scientific Profiling: Assoc. Prof. RNDr. Adriana Zeleňáková, DrSc., focuses on preparing and studying the structures and physical properties of advanced nanoparticle systems, with a particular focus on nanoparticle magnetism and relaxation processes. She deals with magnetic nanoparticles for practical applications in biomedicine, spintronic applications, cryomagnetic refrigeration, etc.

Quantity and quality of publications of candidate:

I can state that A. Zeleňáková is a scientist who achieves high-quality scientific results on an international level. She published the results of his work in 85 original scientific papers registered in WoS Core Collection database, such as: Scientific Report, Applied Surface Sciences, Physical Review B, Applied Physics Letters and others.

Citation rate of candidate:

As of 21 July 2025, the published scientific works of Adriana Zeleňáková, a candidate for the degree professor, have received 857 citations (excluding self-citations) in the WoS database. Her h-index is H=18.

Participation of candidate in international projects:

During the last 5 years of her activity, she has participated as a responsible researcher in 2 domestic VEGA and 2 domestic APVV projects, as well as a project from the EU Structural Funds under the OP II call - 313011AUW7 Nanoparticles for solving diagnostic and therapeutic problems with COVID 19 (NANOVIR). In addition, since 1997 she has been a co-investigator of 14 domestic VEGA projects, 12 domestic APVV projects, and 8 projects from structural funds within ERDF EU calls and other projects.

She regularly participates in foreign experiments at so-called large-scale facilities in France (ESRF Grenoble, ILL Grenoble, SOLEIL Paris), England (ISIS Oxford) and Russia (JINR Dubna), being successful in obtaining projects for measurements using synchrotron and neutron scattering.

It also regularly bids for projects in the Horizon Europe call in a consortium of international partners.

International recognition of candidate:

The recognition of the applicant's scientific community is evidenced by invited lectures at major international symposia, invited lectures at domestic conferences with international participation, as well as other lectures at international and domestic conferences. They have also engaged in extensive international cooperation and review activity for major foreign scientific journals. The publication record of Adriana Zeleňáková clearly shows that she is a scientist who achieves high-quality scientific results on an international level and has made significant and original contributions to scientific research in the field of magnetic nanoparticles for practical applications.

Contribution of candidate:

Adriana Zeleňáková, a candidate for the degree of professor, is the founder of a new scientific school at the Institute of Physics UPJŠ in the field of physics of nanotechnology and nanoparticle magnetism. New arrangements containing selected types of nanoparticles have been proposed to optimize their magnetocaloric response. The study of hyperthermia in various nanoparticles has provided new insights into their optimal composition for medical applications.

Recommendation:

Consequently, I recommend Assoc. prof. Zeleňáková being awarded the degree Professor.

Name of international advisor (referee):

Dr. Marin Tadic

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