



CNRS UPR 4301 Centre de Biophysique Moléculaire - CBM

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To

Prof. Martin Kubala
Dean of Faculty of Science, Palacký University Olomouc,
17. listopadu 12, 779 00 Olomouc,
Czech Republic

Tours, 14th September 2025

Letter of recommendation for Associate Professor Karolina Siskova

Dear Prof. Kubala,

I am writing to offer my strongest recommendation for Assoc. Prof. Dr. Karolina Siskova for the position of Full Professor of Physical Chemistry. Karolina currently holds the position of Head of the research team called Nanostructures for Biomedical and Environmental Applications at the Department of Experimental Physics, Palacký University Olomouc, where she has demonstrated exceptional leadership, innovative research, and a deep commitment to education.

As a highly cited (over 4.4 thousand citations on Web of Science, h-index 40) and recognized researcher in the field of Pharmacology, Analytical chemistry, Physical Chemistry, Biochemistry, Spectroscopy, Biophysics, Nanoscience and nanotechnology, Materials Science – multidisciplinary, I appreciate the opportunity to support Karolina's candidature to become the Full Professor at your renowned institution, i.e. Faculty of Science, Palacký University Olomouc.

I first met Karolina in 2013 in Olomouc when she invited me to her former working place, Regional Centre of Advanced Technologies and Materials, Faculty of Science, Palacký University Olomouc. We planned joint research, once she comes back from maternity leave. Then, we started our closer collaboration in 2017/18 by the stay of dr. Šteflová (who received Sanofi Award) and strengthened it in 2019 by preparing the proposal of Barrande grant to the Ministry of Education, Youth, and Sports. This grant entitled "Development and validation of bimetallic hybrid nanoprobe for bio-analytical

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SERS” was successfully awarded to us for years 2020-2021. Due to Covid pandemia, the grant was postponed by a year on the Czech side, however not on the French one unfortunately. In the framework of this grant, we exchanged two students (dr. Vilímová, dr. Svačinová) working on the topic of optically active bimetallic noble metal nanostructures designed for surface-enhanced Raman scattering. We met again at the European Conference on Spectroscopy of Biological Molecules (ECSBM) taking place in Rheims in late Summer 2022. Karolina delivered an interesting talk about bimetallic Au-Fe(III) nanocomposites for multimodal imaging. Simultaneously, she brought many samples with her by car (because she is very devoted to scientific research) that were further used by her PhD students during their stay in my laboratories in Autumn 2022. These two PhD students of Karolina (dr. Ostruszka, dr. Svačinová) came to my research group to learn basic principles of cell imaging via fluorescence, at the expense of PhD students grant (DSGC-2021-0113) where Karolina served as a valuable mentor.

Scientific Quality and Productivity of Karolina: Karolina Siskova published more than 55 scientific contributions, achieved h-index of 22, and received over 2 thousand citations (based on Scopus). She works in the field of optically active metal nanostructures and nanocomposites applied in environmental and biomedical research domains. She served as a guest editor of two scientific special issues of Nanomaterials and as a topic editor (Nanomaterials, IJMS, Materials, Polymers, Nanomanufacturing). Karolina received several certificates as a valuable reviewer – e.g. from the American Chemical Society and from Elsevier (Science of the Total Environment). I am aware of the fact that in April 2025, she became a panelist at Czech Science Foundation, a very prestigious position for any Czech scientist.

Research team management, Supervision, and Teaching: Karolina Siskova has her own research team composed of five post-docs (three of them are foreigners), three PhD students (two of them are foreigners), and three undergraduate students. Two post-docs of her team were awarded by Marie Skłodowska-Curie Action Operational Program of Johannes Amos Komenský (OP JAK MSCA), a prestigious grant. Karolina supervised over 20 students who successfully defended their theses (2 PhD Theses, 15 Diploma Theses, 4 Bachelor Theses). She taught many lectures and courses dealing with nanomaterials, physico-chemical characterization of materials and spectroscopy, at three departments of Palacký University Olomouc, such as at the Department of Physical chemistry (2009 – now), Biophysics (2017 – 2021), and Experimental Physics (2017 – now). In 2014, she became Associate Professor of physical chemistry. Recently (in 2023), she has been



awarded for her pedagogical activities in category Physics at Faculty of Science, Palacký University Olomouc.

Funding Acquisition. Karolina Siskova has gained several Czech grants already – awarded by Czech Science Foundation, by Ministry of Health of the Czech Republic, and by Ministry of Youth, Education and Sports of the Czech Republic. We have also tried to prepare a training program for PhD students at European Research Council, so called MSCA-ITN doctoral networks.

In conclusion, Karolina´s distinguished research contributions, her dedication to education, and her strong leadership skills make her an outstanding candidate for the position of Full Professor. Her work has had a profound impact on the field of nanocomposites, nanomaterials, spectroscopy, and her commitment to advancing scientific understanding and educating future scientists is exemplary. I am confident that she will continue to make significant contributions as a Full Professor and enhance the reputation of your institution. Well, I warm-heartedly support her promotion.

Yours sincerely,

Prof. Igor Chourpa

