



Brief Characteristics of an Applicant in Habilitation Proceedings at CTU in Prague

Applicant: Antonio Cammarata, Ph.D.

A. Pedagogical activities

- 1) Number of PhD students for whom the applicant was appointed supervisor, or co-supervisor and who successfully defended their PhD theses: **1** (as supervisor)
- 2) Number of defended master/bachelor theses supervised by the applicant: **2 / 2**
- 3) Applicant's most significant achievement in the field of teaching:
Introduction of a new subject in full-time study XEP35CMS (Ph.D. course)
"Computational Methods for Materials Science"
- 4) Assessment of the applicant in the student Anketa questionnaire in the last 4 semesters:
1.0 (Summer term 20/21, only 1 evaluation)

B. Scientific or creative activities

- 1) Three significant original outcomes of scientific or creative activity or arch. or art. realizations:
 - i. **A. Cammarata**, W. Zhang, P. S. Halasyamani and J. M. Rondinelli, Microscopic Origins of Optical Second Harmonic Generation in Noncentrosymmetric-Nonpolar Materials, *Chem. Mater.* 26, 5773–5781 (2014), IF 8.44 (**D1**), **68** WOS citations
 - ii. **A. Cammarata** and T. Polcar, Tailoring Nanoscale Friction in MX₂ Transition Metal Dichalcogenides, *Inorg. Chem.* 54, 5739–5744 (2015), IF 4.82 (**D1**), **38** WOS citations
 - iii. A.I. Vakis, V.A. Yastrebov, J. Scheibert, L. Nicola, D. Dini, C. Minfray, A. Almqvist, M. Paggi, S. Lee, G. Limbert, J.F. Molinari, G. Anciaux, R. Aghababaei, S. Echeverri, Restrepo, A. Papangelo, **A. Cammarata** et al., Modeling and simulation in tribology across scales: An overview, *Tribol. Int.* 125, 169 (2018), IF 4.03, Q1, **248** WOS citations
- 2) H-index without self-citations: **10**
- 3) Number of citations WOS/Scopus/reactions of arch. work, self-citations not included: **WOS 471**
- 4) Mobility (internships in a workplace abroad – place, duration and outcomes of the internship):
 - Postdoctoral researcher
Centre d'Investigació en Nanociència i Nanotecnologia, Bellaterra, Spain
2011-2012, HPC-Europa 2 fellowship
Computational studies on systems derived from barium zirconate

- Postdoctoral researcher
Materials Science and Engineering Department, Drexel University, Philadelphia, PA, USA, September 2011 - June 2014
Outcome: 6 WOS papers
- 5) Two most prominent grant projects of which the applicant was a principal investigator or co-investigator (applicant or co-applicant):
 - Principal investigator of GAČR grant, ID: 17-24164Y (2017-2019)
“Nanoscale Strategies for Transition Metal Dichalcogenides Exfoliation”, 5,259,000 CZK
 - Co-investigator of Marie-Skłodowska Curie Action - Innovative Training Networks “SOLUTION”, European Union, Horizon 2020, ID: 721642; 465,000 EUR
- 6) Example(s) of implementation of applicant’s outcomes in practice:
Dr. Cammarata’s phonon description of friction (PRB 99, 2019, 094309) enables to extract more information than usual from the atomic-force microscopy data.
- 7) Most prominent recognition of the community (incl. recognition in an arch. or art. competition):
Invited Talk at “20th Brazilian MRS meeting”, Iguassu Falls, Paraña, Brasil
25th-29th September 2022
- 8) Most prominent community service:
 - Organizer of Symposium I “Atomic-scale design protocols towards energy, electronic, catalysis and sensing applications” at “EMRS Fall Meeting” 2018, Warsaw, Poland, 17th-20th September 2018
 - 247 reviews of journal papers (Nature, Science, Physical Review Letters, Physics Review Applied, etc.) in the last 10 years

In Prague on April 5, 2023

Habilitation committee

Chair:

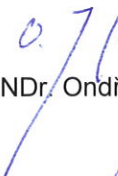


Prof. Ing. Daniel Klír, Ph.D.

Members:



Prof. Mgr. Petr Vašina, Ph.D.



Doc. RNDr. Ondřej Kylián, Ph.D.



Doc. Ing. Pavel Jelínek, Ph.D.



Doc. Ing. Milan Polívka, Ph.D.