



Curriculum Vitae

Name and family name: **Milorad Kuraica**

Research or academic title: **Full professor**

Institution: University of Belgrade, Faculty of Physics, Studentskitrg
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<https://scholar.google.com/citations?user=kWymTqwAAAAJ&hl=en>

<https://www.scopus.com/authid/detail.uri?origin=AuthorProfile&authorId=6602162822&zone=>



Education

1998 PhD in Gas discharge physics, University of Belgrade, Faculty of Physics

1992 Master thesis in Gas discharge physics, University of Belgrade, Faculty of Physics

1986 Graduate studies in Physics, University of Belgrade, Faculty of Physics

Employment

2013 – present Full Professor, University of Belgrade, Faculty of Physics

2007- 2013 Associate Professor, University of Belgrade, Faculty of Physics

1999 - 2007 Assistant Professor, University of Belgrade, Faculty of Physics

1986 – 1999 Teaching Assistant, University of Belgrade, Faculty of Physics

Research field/ area

More than three decades of experience and continuous work on design, construction, diagnostics and applications of gas discharges at low and atmospheric pressure; Optical emission spectroscopy; Electric field measurements based on Stark polarization spectroscopy; Magneto plasma compressor (MPC) and plasma accelerators; Metal vapor lasers. Development of spectroscopic methods for measurement of the electric field strength in various gas discharges.

As a head of the Laboratory for plasma physics and technology with his team he established collaboration with several partners (through common projects, publications or non-formal collaboration which will develop) in Europe and worldwide: Leibniz Institute for Plasma Science and Technology (INP) Greifswald, Germany; University of Technology in Eindhoven, The Netherlands; LPP, Ecole Polytechnique, Paris; GREMI Laboratory, University of Orleans, France; B. I. Stepanov Institute of Physics of the NASB Belarus; Zhejiang University, Hangzhou, China and Department of Chemical Sciences, University of Padua, Italy.

Publications and Citations

He published about 90 papers in international journals and more than 100 contributions in international conference proceedings.

Citations (from SCOPUS on 29.03.2023.): 2421

Hirsch index: 28



List of selected publications

1. Kovačević V. V., Sretenović G. B., Obradović B. M., Kuraica M. M. Low-temperature plasmas in contact with liquids—a review of recent progress and challenges *J. Phys. D: Appl. Phys.* 2022, 55, 473002
2. Lakić M., Andjelković Lj., Šuljagić M., Vulić P., Perić M., Iskrenović P., Krstić I., Kuraica M. M., Nikolić A. S., Optical evidence of magnetic field-induced ferrofluid aggregation: Comparison of cobalt ferrite, magnetite, and magnesium ferrite *Optical Materials*, 2019, 91, pp. 279–285
3. Sobota, A., Guaitella, O., Sretenović, G.B., Kovačević, V.V., Slikboer, E., Krstić, I.B., Obradović, B.M. and Kuraica, M.M. Plasma-surface interaction: Dielectric and metallic targets and their influence on the electric field profile in a kHz AC-driven He plasma jet. *Plasma Sources Science and Technology* 2019, 28(4).
4. Kramar, A.D., Obradović, B.M., Vesel, A., Kuraica, M.M., Kostić, M.M. Surface cleaning of raw cotton fibers with atmospheric pressure air plasma *Cellulose*, 2018, 25(7), pp. 4199–4209
5. Kovačević V V, Dojčinović B P, Jović M, Roglić G M, Obradović B M and Kuraica M M, Measurement of reactive species generated by dielectric barrier discharge in direct contact with water in different atmospheres *J. Phys. D: Appl. Phys.* 2017, 50, 155205
6. G.B. Sretenović, I.B. Krstić, V.V. Kovačević, B.M. Obradović, M.M. Kuraica, Spatio-temporally resolved electric field measurements in helium plasma jet, *Journal of Physics D: Applied Physics*, 2014, 47
7. Ivković, S.S., Obradović, B.M., Kuraica, M.M., Electric field measurement in a DBD in helium and helium-hydrogen mixture, *Journal of Physics D: Applied Physics*, 2012, 45 (27), art. no. 275204.
8. Obradović, B.M., Sretenović, G.B., Kuraica, M.M., A dual-use of DBD plasma for simultaneous NO_x and SO₂ removal from coal-combustion flue gas, *Journal of Hazardous Materials*, 2011, 185(2-3), pp. 1280–1286
9. Cvetanović, N., Obradović, B.M., Kuraica, M.M., Influence of cathode material on generation of energetic hydrogen atoms in a glow discharge, *Journal of Applied Physics*, 2011, 109 (1), art. no. 013311.
10. G.B. Sretenović, I.B. Krstić, V.V. Kovačević, B.M. Obradović, M.M. Kuraica, Spectroscopic measurement of electric field in atmospheric-pressure plasma jet operating in bullet mode, *Appl. Phys. Lett.*, 2011, 99.
11. Obradović, B.M., Ivković, S.S., Kuraica, M.M., Spectroscopic measurement of electric field in dielectric barrier discharge in helium, *Applied Physics Letters*, 2008, 92 (19), 191501
12. Dojčinović, I.P., Kuraica, M.M., Obradović, B.M., Cvetanović, N., Purić, J., Optimization of plasma flow parameters of the magnetoplasma compressor, *Plasma Sources Science and Technology*, 2007, 16 (1), art. no. 010, pp. 72-79.
13. Obradović, B.M., Kuraica, M.M. Optogalvanic effect and measurement of gas temperature in an abnormal glow discharge, *Applied Physics Letters*, 2006, 89(13), 131502
14. Kuraica, M.M., Obradović, B.M., Manojlović, D., Ostojić, D.R., Purić, J. Ozonized water generator based on coaxial dielectric-barrier-discharge in air, *Vacuum*, 2004, 73(3-4), pp. 705–708
15. Kuraica, M.M., Konjević, N., Electric field measurement in the cathode fall region of a glow discharge in helium, *Applied Physics Letters*, 1997, 70 (12), pp. 1521-1523



16. Kuraica, M., Konjević, N., Platiša, M., Pantelić, D. Plasma diagnostics of the Grimm-type glow discharge, *Spectrochimica Acta Part B: Atomic Spectroscopy*, 1992, 47(10), pp. 1173–1186
17. Kuraica, M.M., Konjević, Line shapes of atomic hydrogen in a plane-cathode abnormal glow discharge, *Physical Review A*, 1992, 46(7), pp. 4429–4432

List relevant previous projects or activities

- 2011-2019: Diagnostics and optimization of plasma sources important for applications, funded by MEST (PI)
- 2006-2010: Spectroscopic diagnostics of plasma in the sources relevant to the application, funded by Ministry of Education, Science and Technological development of the Republic of Serbia (MEST) (PI)
- 2016-2017: Project of bilateral collaboration between Serbia and France – “Cross E-field: complementary advanced diagnostics of E-field in cold atmospheric plasma jets for biological and medical applications” (PI)
- 2016-2017: Project of bilateral collaboration between Serbia and Germany – “Novel diagnostic methods on plasma jets” (Participant)
- 2014-2015: Project of bilateral collaboration between Serbia and Germany – “Studies of the physical and chemical processes in non-equilibrium atmospheric pressure plasmas by advanced volume and surface diagnostics” (PI)

Other academic and research activities (honors, awards, scholarships, committees, journal reviewers, etc.)

- Head of the Laboratory for plasma physics and technology and head of the Laboratory for Fusion Plasmas at the Faculty of Physics.
- He was a project leader of four national and four international research projects.
- 2014-2018 member of The National scientific promotion committee, the highest body for the professional advancement of scientists in Serbia.
- Reviewer for international scientific journals (*Plasma Sources Science and Technology*, *Journal of Physics D: Applied Physics*, *Journal of Applied Physics*, *Contributions to Plasma Physics*, etc.), Project reviewer for Ministry of Education, Science and Technological development of the Republic of Serbia and Czech Science Foundation.
- Member of the Serbian Physical Society
- Member of Advisory committee of Summer School and International Symposium on the Physics of Ionized Gases
- Member of Scientific committee of Central European Symposium on Plasma Chemistry
- Participated in organization of about ten international conferences as chair or member of local organizing committee