

## Curriculum vitae of S. Petrović

### Personal data

1. Name: **Srdjan**
2. Surname: **Petrović**
3. Date of birth: September 28, 1964
4. Place of birth: Kruševac, Serbia
5. Home address: Dušana Vukasovića 74, 11070 New Belgrade, Serbia; phone: +381-11-217-2233
6. Languages: Serbian and English
7. Profession: Scientist
8. Degree: PhD
9. Title: Principal Research Fellow (research equivalent of Full Professor)
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### Education and training

1. Faculty of Physics, University of Belgrade, Belgrade, Serbia, 1983-1988, BSc
2. Faculty of Physics, University of Belgrade, Belgrade, Serbia, 1988-1993, MSc
3. Faculty of Physics, University of Belgrade, Belgrade, Serbia, 1993-1997, PhD
4. Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA, 1997-1999, post-doctoral study

### Professional titles

1. Laboratory of Physics, Vinča Institute of Nuclear Sciences, Research Assistant, 1994 - 1997
2. Laboratory of Physics, Vinča Institute of Nuclear Sciences, Research Associate, 1998 - 2001
3. Laboratory of Physics, Vinča Institute of Nuclear Sciences, Senior Research Associate, 2002 - 2006
4. Laboratory of Physics, Vinča Institute of Nuclear Sciences, Principal Research Fellow, 2007 and continuing

### Research activities

1. Interaction of Ions with Solids
2. Rainbow Channeling Effect
3. Ion Beam Analysis
4. Dynamics of Ion Beams

### Academic activities

1. S. Korica, MSc thesis, mentor, 2001
2. D. Borka, MSc thesis, co-mentor, 2002
3. M. Erić, MSc thesis, mentor, 2008
4. N. Stojanov, PhD thesis, mentor, 2003
5. D. Borka, PhD thesis, co-mentor, 2006
6. I. Telečki, PhD thesis, mentor, 2013
7. M. Erić, PhD thesis, mentor, 2014

### Official functions

1. Laboratory of Physics, Vinča Institute of Nuclear Sciences, Belgrade, Serbia, Head of Group for Physics of Condensed State, 1999-2007
2. Laboratory of Physics, Vinča Institute of Nuclear Sciences, Belgrade, Serbia, Deputy Head of Group for Science with Accelerators, 2009 – 2011.
3. Laboratory of Physics, Vinča Institute of Nuclear Sciences, Belgrade, Serbia, Head of Group for Science with Accelerators, 2012 and continuing.
4. TESLA Project (the project of designing, construction and use of the TESLA Accelerator Installation, consisting of a medium-sized cyclotron, three ion sources and a number of experimental channels), Head of subproject *Science with Accelerators*, 2006-2007
5. Project *Physics and Chemistry with Ion Beams*, Head, 2008 and continuing
6. Serbia-JINR, Dubna, Russia collaboration, Coordinator, 2011 and continuing

### Scientific publications

1. 1 monograph/book
2. 1 book chapter
3. 48 articles in refereed international journals

### Most relevant scientific publications

1. **S. Petrović**, M. Ćosić, and N. Nešković, *Quantum rainbow channeling of positrons in very short carbon nanotubes*, **Physical Review A** **88**, 012902 (2013).
2. M. Erich, **S. Petrović**, M. Kokkoris, E. Liarokapis, A. Antonakos and I. Telečki, *Micro-Raman depth profiling of silicon amorphization induced by high-energy ion channeling implantation*, **Journal of Raman Spectroscopy** **44**, 496 (2013).
3. M. Motapothula, **S. Petrović**, N. Nešković, Z. Y. Dang, M. B. H. Breese, M. A. Rana, and A. Osman, *Origin of ringlike angular distributions observed in rainbow channeling in ultrathin crystals*, **Physical Review B** **86**, 205426 (2012).
4. **S. Petrović**, N. Nešković, V. Berec, V. and M. Ćosić, *Superfocusing of channeled protons and subatomic measurement resolution*, **Physical Review A** **85**, 032901 (2012).
5. M. Erić, **S. Petrović**, M. Kokkoris, A. Lagoyannis, V. Paneta, S. Harissopoulos, I. Telečki, *Depth profiling of high energy nitrogen ions implanted in the <100>, <110> and randomly oriented silicon crystals*, **Nuclear Instruments and Methods in Physics Research B**, **274**, 87 (2012).

6. N. Nešković, I. Telečki, B. Bojović, and **S. Petrović**, *A square electrostatic rainbow lens: Catastrophic ion beam focusing*, **Nuclear Instruments and Methods in Physics Research A**, **635**, **1** (2011).
7. D. Borka, **S. Petrović** and N. Nešković, *Channeling of protons through carbon nanotubes*, **Nova Science Publishers, Series: Nanotechnology Science and Technology**, soft cover book, pages 1-78, New York (2011).
8. **S. Petrović**, M. Erić, M. Kokkoris, and N. Nešković, *Gompertz type dechanneling functions for protons in  $\langle 100 \rangle$ ,  $\langle 110 \rangle$  and  $\langle 111 \rangle$  Si crystal channels*, **Nuclear Instruments and Methods in Physics Research B** **256**, **177** (2007).
9. **S. Petrović**, D. Borka, and N. Nešković, *Rainbows in transmission of high energy protons through carbon nanotubes*, **European Physical Journal B** **44**, **41** (2005).
10. **S. Petrović**, L. Miletić, and N. Nešković, *Theory of rainbows in thin crystals: the explanation of ion channeling applied to  $Ne^{10+}$  ions transmitted through a  $\langle 100 \rangle$  Si thin crystal*, **Physical Review B** **61**, **184** (2000).