

## **Predrag S. Krstić**

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### **Present Positions:**

Senior Research and Development Staff Member, Physics Division, ORNL

Adjunct Professor, Department of Physics and Astronomy, University of Tennessee

### **Education:**

PhD Physics City College of C.U.N.Y., New York 1982

MS Plasma Physics Belgrade University (Yugoslavia) 1979

BS Physics Belgrade University (Yugoslavia) 1975

### **Employment:**

1995 – present Physics Division, Oak Ridge National Laboratory

1992 - 1995 Physics Department, University of Connecticut, Storrs

1976 - 1992 Institute of Physics, Belgrade University, Belgrade (Yu)

1979 – 1981 City College of C.U.N.Y., New York

**Refereed Publications:** Over **170** (list available at the web page above).

**Invited Talks:** Over **60** at major meetings and colloquiums

### **Professional Societies, Affiliations, Synergies, Awards:**

*Fellow* of the American Physical Society, *elected 2004*, member since 1980; Member of APS, ACS, AAUP .

*Consultant* of International Atomic Energy Agency (IAEA), 1988-present

*Chair:* \*Summer School of 4th International Conference on Nano-Giga Challenges in Electronic, Photonic and Renewable Energy & 14th Canadian Semiconductor Conference, Hamilton, Ontario (2009); \*International Workshop on New Directions of Advanced Computer Simulations and Experiments in Fusion-Related Plasma-Surface Interactions (PSIF), ORNL, March 2005.

*Co-Chair:* \*18th International Workshop on Inelastic Ion-Surface Collision, Gatlinburg, TN, September (2010); \*3rd ICAMDATA (Gatlinburg, TN, 2002); \*XII SPIG (Sibenik, Yugoslavia, 1984); \*CDAMP (Brioni, Yugoslavia, 1988).

*Member of Program Committees:* 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> International Conference on Nano-Giga Challenge in Microelectronics, \*Phoenix, AZ (2007), \*Hamilton, Canada (2009), \*Moscow (2011), \*IISC18 (2010), \*XII SPIG (1984), \*XIII SPIG (1986), \*CDAMP (1988).

*Editor/Co-Editor* of **nine books** of conference proceedings.

**PI of awarded projects:** \*NIH funded project, DNA Sequencing Through Quadrupole Gate (2008-2011); \*ORNL Seed LDRD project “Modeling of the Plasma-Material Interface” (2010-2011); \*ORNL Seed LDRD project “Irradiation Effects in the Graphene Based Electronics”; \*ORNL Seed LDRD project “Excited State Quantum-Classical Molecular Dynamic” (2005-06); \*Joint IAEA-ORNL Coordinated Research Projects: “Data for surface composition dynamics relevant to erosion processes” (2007-2010); \* “Atomic and molecular data for fusion plasma diagnostics” (2001-2005), \* “Atomic Data for fusion divertor modeling” (1997-2000); \*ORNL-CNMS user-project “Plasma-Surface Interface in ITER: Interactions, Chemistry, Sputtering”, 2008-2009; \*Joint IAEA-Institute of Physics (Belgrade) Coordinated Research Projects (1988-1990, 1990-1992) on atomic and molecular data for fusion; \*Joint USNSF-Yugoslav research projects (1986-1988, 1989-1991) on strong laser-atom interactions.

**Co-PI of awarded projects:** \*NIH funded project “Carbon Nanotubes: A New Synthetic Nanopore for Sequencing” (PI: S. Lindsay, Arizona State University); \*NIH-funded project, Computational Methods for DNA Sequencing (2004-2007) (PI: J. Lee); \*Co-PI, ORNL LDRD project, Computational Molecular Electronics (2001-2003) (PI: D. Dean); \*Co-PI, ARDA-funded project on Molecular Photonic (2003-2005) (PI: M. Barnes)

**Publication Awards:** \*1987, \*1990, Institute of Physics, Belgrade University

**Member of Editorial Boards:** \**Journal of Nanomedicine & Nanotechnology*, Omics Publishing Group; \**Journal of Atomic, Molecular and Optical Physics*, Hindawi Publishing Corporation

**Development and management** of the bibliographic and atomic/molecular collision databases in Controlled Fusion Atomic Data Center (CFADC) of ORNL

**Referee** of the Physical Review, Physical Review Letters, Nuclear Fusion, EuroPhysics Letters, Journal of Physics, Journal of Chemical Physics, New J. of Phys, J. appl. Phys., Nanotechnology, etc.