

Ilya A. Shkrob

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Chemist, Heavy Elements Chemistry and Separations Science Group

Chemical Sciences and Engineering Division,

Argonne National Laboratory

9700 South Cass Ave., Argonne IL 60439

Education:

1990 Degree: Ph.D. in Chemistry. Thesis: *Magnetic Spin Effects in Reactions of Radicals in Micelles*, Institute of Chemical Physics, Russian Academy of Sciences, Moscow, USSR.

1987 Degree: combined B. S. and M. S. in Chemistry, Department of Chemistry, Moscow State University, Moscow, USSR.

Professional Employment:

1987-1990 Ph. D. student, Institute of Chemical Physics, Russian Academy of Sciences; Moscow, USSR. Advisor: A. L. Buchachenko

1990-1991 Visiting Fellow. Physical Chemistry Laboratory, University of Oxford, Oxford, UK. Advisor: K. A. McLauchlan

1991-1992 Postdoctoral Fellowship, Department of Chemistry, Queen's University, Kingston, Ontario, Canada. Advisor: J. K. S. Wan.

1992-1996 Postdoctoral Appointee, Radiation and Photochemistry Group, Chemistry Division, ANL, Argonne, IL, USA. Advisor: A. D. Trifunac

1996-2000 Assistant Chemist.

2000+ Chemist.

2008+ Chemical Sciences and Engineering Division (Argonne).

2009+ Heavy Elements Chemistry and Separations Science Group.

Professional Activities:

Member of American Chemical Society and American Physical Society

Research Interests:

Early events in radiation- and photo- chemistry, magnetic and spin effects in chemistry, isotope effects, radical and spur chemistry, organic photochemistry, computational and theoretical chemistry, nuclear and electron magnetic resonance, processes in micro-heterogeneous media and solution and supramolecular chemistry, electron transfer and artificial photosynthesis, charge/energy migration in liquids and solids, ultrafast laser spectroscopy, solar energy conversion, photophysics of semiconductors and metal oxide nanoparticles, device and materials physics, astrochemistry and astrobiology, planetary and geo- chemistry, glass science, radiation, physical, photo- and separations chemistry in complex, supercritical and ionic fluids, microfluidics and lab-on-a-chip chemistry, magnetic and micro/nano sphere based analytical separations, nuclear cycle chemistry and nuclear separations, bioassay development and MRI contrasting agents chemistry, electric energy storage, Li-ion, Li-Si, Li-S batteries, advanced energy materials, all-organic redox flow batteries, chemistry of high energy physics detectors.

200+ publications, 6 patents, 760 citations/year, h=40