



### Georgios A. Souliotis

**Title:** Assistant Professor of Physical Chemistry

**Sector:** Theoretical and Physical Chemistry, Inorganic and Instrumental Analysis, Chemical Instrumentation

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#### Academic Qualifications:

- Ph.D. in Chemical Physics (1992), Dept. of Chemistry, Michigan State University, Michigan, USA
- B.Sc. in Chemistry (1986) Dept. of Chemistry, University of Athens

#### Appointments:

- September 2009-today: Assistant Professor, Dept. of Chemistry, University of Athens
- August 2006-August 2009: Associate Research Scientist, Cyclotron Institute, Texas A&M University, USA
- August 2001-August 2009: Assistant Research Scientist, Cyclotron Institute, Texas A&M University, USA
- April 2000-August 2001: Postdoctoral Research Associate, Cyclotron Institute, Texas A&M University, USA
- February 1997-December 1999: Research Associate, Institute of Nuclear Physics, NCSR 'Demokritos', Athens
- July 1994 - February 1997: Postdoctoral Research Associate, Department of Chemistry, Oregon State University, Corvallis, Oregon, USA
- May 1993 - May 1994: Visiting researcher, Institute of Nuclear Physics, NCSR "Demokritos", Athens
- September 1986 - May 1992: Graduate Teaching and Research Assistant, Dept. of Chemistry and National Superconducting Cyclotron Laboratory (NSCL), Michigan State University, Michigan, USA

#### Teaching Activities: (current)

##### Undergraduate courses

- Radiochemistry/Nuclear Chemistry
- Physical Chemistry Laboratory
- Physical Chemistry (at the Department of Pharmacy)

##### Postgraduate courses

- Selected Topics in Nuclear Chemistry
- Supervisor of 2 MSc thesis (1 finished, 1 ongoing)

#### Research Interests/Activities: (last 10 years)

- Studies of nuclear reactions and dynamics. Studies at the limits of nuclear stability: neutron and proton drip-lines.
- Rare isotope beam production and applications in nuclear reactions or nuclear structure studies.
- Research, development and experiments in new RIB facilities, e.g., the US Facility for Rare Isotope Beams "FRIB" and the European facility 'EURISOL'.
- Production mechanisms of heavy and superheavy elements.
- Theoretical description of nuclear reactions via microscopic many-body models.
- Nuclear astrophysics: synthesis of light and heavy elements.

- Equation of state of asymmetric nuclear matter.
- Strong interest and involvement in subjects at the interface with astrophysics/cosmology (e.g. supernova nucleosynthesis and birth/evolution of neutron stars, neutrino astrophysics)
- Strong interest in applications of nuclear science in issues related to energy production and medicine.

#### Scientific Publications/Citations:

- 89 publications in refereed journals
- 30 refereed conference publications
- 48 Invited talks
- More than 1300 citations (Iav. 2014).
- H-index = 22

#### Top five publications

Production of Neutron Rich Nuclides and Radioactive Beams by Intermediate Energy  $^{238}\text{U}$  Fission. G.A. Souliotis, W. Loveland, G.J. Wozniak, K.E. Zyromski, D.J. Morrissey, J.O. Liljenzin and K. Aleklett, *Phys. Rev. C* 55, R2146 (1997).

Enhanced Production of Neutron-Rich Rare Isotopes in Peripheral Collisions at Fermi Energies. G.A. Souliotis, M. Veselsky, G. Chubarian, L. Trache, A. Keksis, E. Martin, D. V. Shetty and S. J. Yennello, *Phys. Rev. Lett.* 91, 022701 (2003).

Heavy Residue Isoscaling as a Probe of the Process of N/Z Equilibration. G.A. Souliotis, M. Veselsky, D.V. Shetty and S.J. Yennello, *Phys. Lett. B* 588, 35 (2004).

Tracing the Evolution of the Symmetry Energy of Hot Nuclear Fragments from the Compound Nucleus towards Multifragmentation. G.A. Souliotis, A.S. Botvina, D.V. Shetty, A. Keksis, M. Jandel, M. Veselsky and S.J. Yennello, *Phys. Rev. C* 75, 011601 (2007).

Approaching neutron-rich nuclei toward the r-process path in peripheral heavy-ion collisions at 15 MeV/nucleon. G.A. Souliotis, M. Veselsky, S. Galanopoulos, M. Jandel, Z. Kohley, L.W. May, D.V. Shetty, B.C. Stein, S.J. Yennello, *Phys. Rev. C* 84, 064607 (2011).

#### Professional Affiliations

Hellenic Nuclear Physics Society (HNPS)  
Hellenic Institute of Nuclear Physics (HINP)  
American Physical Society (APS)