

Sousan Abolhassani-Dadras
Laboratory for Nuclear Materials
5232 Villigen PSI
tel.: + 41 56 310 21 91
E-mail: Sousan.Abolhassani@psi.ch

EDUCATION

- 1991 Ph.D. in Material Science and Solid State Chemistry.
Laboratoire de Chimie Appliquée de l'Etat Solide,
École Nationale Supérieure de Chimie de Paris,
and Université de Paris XI, Orsay, France.
- 1987 D.E.A. (Diplôme d'Etudes Approfondies) in Metallurgy and Materials.
Institut National des Sciences et des Techniques Nucléaires (INSTN),
Commissariat à l'Énergie Atomique (CEA), Saclay, France.
- 1979 B.Sc. in Materials Science and Technology.
Dept. of Materials Science & Engineering,
Surrey University, Guildford, UK.

EMPLOYMENT

- 1998- **Paul Scherrer Institut**, Laboratory for Materials Behaviour,
Villigen-PSI 5232, Switzerland. **Project Manager and Senior Scientist.**

Summary of certain activities at PSI:

Research and development in the field of nuclear materials with the emphasis on the examination of the microstructure of zirconium alloys, irradiated in light water reactors and the comparison of their behaviour as a function of the number of cycles in the reactor.

Examination of the evolution of secondary phase particles under irradiation, by transmission electron microscopy (TEM).

Contribution to the understanding of the oxidation behaviour of zirconium alloys in the reactor, by observation of the microstructure of metal-oxide interface of different alloys irradiated in light water reactors.

The methods used for this research include: analytical electron microscopy, conventional transmission electron microscopy, high resolution transmission electron microscopy, atomic force microscopy and environmental scanning electron microscopy and focused ion beam.

Project manager for the destructive examinations of the Fuel Performance Program, in collaboration with Kernkraftwerk Leibstadt, Switzerland and Westinghouse Atom, Sweden.

- 1992- 1997 **Electron Microscopy Centre**, University of Lausanne, Lausanne.
Electron energy loss spectroscopy and electron spectroscopic imaging, with an energy filtering transmission electron microscope, analysis of biological and polymer specimens. Teaching and tutorials of Electron Microscopy.
- 1987-1991 **École Nationale supérieure de chimie de Paris, PhD work:**
« Contribution to the study of Aluminium Germanates with Mullite Structure »;
synthesis and crystal growth of germanates, analysis by x-ray crystallography, Raman spectroscopy, Electron microscopy and spectroscopic techniques (UV, Auger, ...).