

CURRICULUM VITAE

SABRINA SARTORI

PERSONAL DETAILS

Name: Sabrina Sartori
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EDUCATION

17 October - 28 October 2005, School on Pulsed Neutron Sources: Enhancing the Capacity for Material Science at the ICTP The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy. Organizers: IAEA (International Atomic Energy Agency) and ICTP.

2004 Master post lauream in Science Communication at the ISAS (International School for Advanced Studies) of Trieste. Thesis on: *A "fair" on the cradle of the computer: history of a mathematical dream*, Supervisor Prof. Giuseppe O. Longo of the Trieste University.

2003 Ph.D. in Material Science and Engineering at the Bologna University, Supervisor Prof. Massimo Gugliemi. Thesis on: *Sol-gel synthesis and characterisation of crystalline and amorphous ionic conducting materials for planar electrochemical sensors*.

1999 Course in Environment law and politics at the Padova University. Course organised for the project *Chaire Verte* of the European Union. Thesis on: *The Ronchi decree and the management of waste*.

1998 Graduated in Chemistry (legal term 5 years, comparable to a Master degree in Physical Chemistry) at the Padova University, Supervisor Prof. Renato Bozio. Experimental Thesis on: *Preparation and characterisation of multilayer structures containing fullerene derivatives in hybrid sol-gel glasses for optical limiting*.

RESEARCH AND ACADEMIC ACTIVITIES

Reykjavik-Iceland, June 26-30, 2006. Lecturer at the Summer School on *Materials for the Hydrogen Society*. Lesson on "Complex hydrides".

December 2005-current: research in the frame of the EC **StorHy** project (*Hydrogen storage in complex hydrides*, contract no 502667), and **NESSHY** (*Novel efficient solid storage for hydrogen*, contract no 518271) at Physics Department, IFE (Institute for Energy Tecnology), Kjeller, Norway.

18-23 May 2006: experimental measurements session on ESRF (European Synchrotron Radiation Facility), Grenoble, France.

2004-2005. Research in the frame of the **PRIN2004** project "Sintesi e caratterizzazione di materiali per l'immagazzinamento di idrogeno allo stato solido" funded by the Ministero dell'Istruzione, dell'Università e della Ricerca.

2003 Research Project **MIUR-PRIN 2001** “*Idrogeno e Scienza dei materiali (Hydrogen and Science materials)*”, during the employment contract with Physics Department of Padova. Co-ordinators Prof. Sergio Lo Russo and Prof. Giovanni Principi.

2000-2002 Ph.D. researches inside the Research Project **MURST**: *Sol-gel routes for the development of materials for planar electrochemical sensors for environmental monitoring*.

1997-1999 Physical Chemistry researches at Padova University (Prof. R. Bozio) inside the Project Brite-Euram III **MOLALC**: *Molecular Optical Limiting and Light Control* (contract BRPR-CT97-0564 N° BE-4408).

April-June 1995 Erasmus Program at the Institut für Organische Chemie of Georg-August-Universität Göttingen, Supervisor Prof. Oliver Reiser. Research activity concerning *Palladium Catalyzed Arylation of 2,3-Dihydrofurans using High Pressure Conditions*.

ACADEMIC PRIZES AND AWARDS

December 2005-current: European research grant within StorHy and NESSHY projects at Physics Department, Institute for Energy Tecnology, Kjeller, Norway.

2 June-18 June 2005 Research fellow at Leibniz-Institute for Solid State and Materials Research, IFW, Dresden, Germany, with Vigoni Project. Research activity: Light metal hydrides and nanostructured complex hydrides for solid state hydrogen storage.

2004-2005: two years research grant at DIM, Settore materiali, Padova University. Research Project “*Production and Structural Analysis of Nanophase Materials*”, scientific supervisor Prof. Amedeo Maddalena.

2000-2003 Ph.D. grant in Material Science and Engineering assigned by Bologna University..

2001 Award for Master in Science Communication assigned by the Interdisciplinary Laboratory for Natural and Humanistic Sciences of the ISAS (International School for Advanced Studies) of Trieste.

23-31 October 1999 Award for the thesis *The Ronchi decree and the management of waste* presented at the end of the Specialization Course in Environment law and politics, concerning a visit as invited student at Nantes University, Faculté de Droit et des Sciences Politiques, in the group of Prof. Jean-Pierre Beurier.

May1999-January 2000 Research grant for the project MOLALC assigned by Physical Chemistry Department of Padova University. Co-ordinator Prof. R. Bozio.

April-June 1995 Socrates/Erasmus grant assigned by Padova University.

1993 First prize for the progress in German language, assigned at the Wiener Internationale Hochschulkurse, Wien University.

SELECTED PUBLICATIONS

Investigations on light metal hydrides at Padova, the city of San Antonio, Giovanni Principi, Petru Palade, Sabrina Sartori, Amedeo Maddalena, Filippo Agresti, Sergio Lo Russo, Bernardo Molinas, Hernan A. Peretti, *TMS The Minerals, Metals and Materials Society*, *accepted*.

Mössbauer study of Mg-Ni(Fe) alloys processed as materials for solid state hydrogen storage, P. Palade, G. Principi, S. Sartori, A. Maddalena, S. Lo Russo, G. Schinteie, V. Kuncser, G. Filoti, *Hyperfine Interaction*, *accepted*.

New solid state hydrogen reservoir for vehicular applications, G. Principi, M. Petris, A. Maddalena, P. Palade, S. Sartori, E. Settimo, B. Molinas, and S. LoRusso, *Proceedings Int. Conf. Hydrogen Energy*, Istanbul 13-15 July 2005.

Study of Mg-based materials to be used in a functional solid state hydrogen reservoir for vehicular applications, Amedeo Maddalena, Milo Petris, Petru Palade, Sabrina Sartori, Giovanni Principi, Eliseo Settimo, Bernardo Molinas, Sergio Lo Russo, *Int. J. Hydrogen Energy*, *accepted*.

Hydrogen storage in Mg-Ni-Fe compounds prepared by melt spinning and ball milling, P. Palade, S. Sartori, A. Maddalena, G. Principi, S. Lo Russo, G. Schinteie, V. Kuncser, G. Filoti, *J. of Alloys and Compounds*, **415** (2006), 170-176.

New solid state hydrogen reservoir for vehicular applications, G. Principi, M. Petris, A. Maddalena, P. Palade, S. Sartori, E. Settimo, B. Molinas, S. Lo Russo, *Proceedings of 11th Expo international conference High-Tech engines and cars*, Modena 26-27 May 2005.

Hydrogen storage in magnesium hydride-based materials prepared by high energy ball milling and by melt spinning for mobile applications, Sabrina Sartori and Petru Palade, *Proceedings of Hysydays "1st World Congress of Young Scientists on Hydrogen"*, Torino 18-20 maggio 2005, *Begell House Inc, New York* (2005).

Quasicrystalline phase formation in mechanically alloyed Al-Cu-Fe system, V.V. Tcherdyntsev, S.D. Kaloshkin, E.V. Shelekhov, A.I. Salimon, S. Sartori, G. Principi, *Intermetallics*, **13** (2005), 841-847.

Nuovi materiali nanostrutturati per stoccaggio di idrogeno allo stato solido, S. Lo Russo, G. Principi, A. Maddalena, P. Palade, S. Sartori, T. Spataru, *Proceedings of Conferenza Nazionale Politica energetica in Italia*, Bologna 18-19 April 2005.

Hydrogen desorption from magnesium hydride-graphite nanocomposites produced by ball milling, S. Dal Toè, S. Lo Russo, A. Maddalena, G. Principi, A. Saber, S. Sartori, T. Spataru, *Materials Science and Engineering (B)*, **108**, 2004, 24-27.

Hydrogen storage in magnesium hydride doped with niobium pentaoxide and graphite, C. De Piccoli, S. Dal Toè, S. Lo Russo, A. Maddalena, P. Plade, A. Saber, S. Sartori, G. Principi, *Chemical Engineering Transactions, Proceedings H2-age:When, Where, Why*, Volume **4**, 2004, 343-347.

Sol-gel synthesis of beta-Na₂O·xAl₂O₃ powders, S. Sartori, A. Martucci, A. Muffato, M. Guglielmi, *Journal of the European Ceramic Society*, **24** (2004), 911-914.

Sol-gel synthesis of λ - $\text{Na}_2\text{O}\cdot x\text{Al}_2\text{O}_3$ films, A. Martucci, S. Sartori, A. Muffato, M. Guglielmi, E. Traversa, E. Di Bartolomeo, L. Armelao, *Journal of the American Ceramic Society*, **86** [11] (2003), 1965-1968.

NMR and XRD study of the influence of the P precursor in sol-gel synthesis of NASICON powders and films, A Martucci, S. Sartori, M. Guglielmi, M.L. Di Vona, S. Licocchia, E. Traversa, *Journal of the European Ceramic Society*, **22** (2002), 1995-2000.

Optical limiting of multilayer sol-gel structures containing fullerenes, M. Meneghetti, R. Signorini, S. Sartori, R. Bozio, M. Maggini, G. Scorrano, M. Prato, G. Brusatin and M. Guglielmi, *Synthetic Metals*, Volume 103, Issues 1-3, June 1999, 2474-2475 .

Hybrid sol-gel glasses containing fullerene derivatives for bottleneck optical limiting with multilayer structures, R. Signorini, S. Sartori, M. Meneghetti, R. Bozio, M. Maggini, G. Scorrano, M. Prato, G. Brusatin, M. Guglielmi, *Molecular Crystals and Liquid Crystals Science and Technology Section B: Nonlinear Optics*, Volume 21, Issue 1-4, June 1999, 143-162.

Dramatic increase of turnover numbers in palladium-catalyzed coupling reactions using high-pressure conditions, S. Hiller, S. Sartori, O. Reiser, *Journal of the American Chemical Society*, **118**(8) FEB 28 (1996), 2087-2088.