Chiara Bisio

Curriculum vitae

Personal Data

Chiara Bisio was born in Italy (Voghera, PV) on 01.08.1975 and she lives in Castelnuovo Scrivia (AL).

Bio and education

Chiara Bisio graduated in Chemistry with top mark (110/110 magna cum laude) at the University of "Estern Piedmont".In November 2001 she begins the PhD, that was in co-tutoring Italy-France. She worked under the supervision of Prof. S. Coluccia (University of Turin) and Dr. P. Massiani (University P. et M. Curie, Paris). On July 2005 she obtained the PhD in Chemistry at the University of Turin (Italy) and the degree of Doctor of the University "Pierre et Marie Curie" (France). From November 2004 to November 2008 C. Bisio was Post-doc at the University of Eastern Piedmont. From December 2008, she is researcher at the same University.

University career

2008-	Researcher, Università del Piemonte Orientale

University positions

2015-	Member of guidance commission, Dipartimento di Scienze e Innovazione Tecnologica, Università del Piemonte Orientale.

Scientific positions

2009-	Associated researcher to the Institute of Molecular Sciences and Technology (ISTM) of the Italian National Research Council (CNR) in Milan (Italy)

Main fields of interest

1. Physical-chemistry
2. Nanomaterials
3. Decomposition and/or adsorption of toxic molecules
4. Green processes
5. Surface modification of materials

CURRENT ISSUES OF RESEARCH

1. **Development of innovative materials for the catalytic abatment of toxic molecules**

Design, preparation and characterisation of nanostructured heterogeneous catalysts for the catalytic abatement or decontamination of chemical and biological hazardous agents under mild conditions (low temperature and pressure, mild oxidants).

2. **Novel catalysts for green processes**

Optimization of novel catalysts for green processes and fine chemical production: study and physico-chemical characterization of innovative catalytic materials for applications in environmental catalysis and petrochemical industry

3. **Optimization of porous sorbents for CO2 capture and/or water decontamination**

Preparation, surface modification and optimisation of porous solids for the health of environment with particular attention to materials for CO2 capture and storage and sorbents useful for removal of hydrocarbons from waters. Physico-chemical studies of the interactions at the surface of sorbents, particularly devoted to the optimisation of sorption processes.

4. **Novel materials for the production of energy through processes with low environmental impact**

Preparation of materials with different structure and chemical composition that can be exploited for the optimization of devices for the production of energy with low environmental impact (photovoltaic cells, fuel cells…)

5. **Preparation of inorganic and hybrid organic-inorganic additives for polymer nanocomposites.**

Development of materials for the preparation of polymer nanocomposites with improved thermal properties.

CURRENT FUNDED PROJECTS

PROGRAMME	FUNDED PROJECT
NATO "Science for Peace and security" project	NANOCONTRACHEM- NANOSTRUCTURED MATERIALS FOR THE CATALYTIC DECONTAMINATION OF CHEMICAL WARFARE AGENTS (2014-2017)
…	…

TOP FIVE PAPERS

1. Fabio Carniato, Chiara Bisio, Rinaldo Psaro, Leonardo Marchese and Matteo Guidotti, “Nb(V)-saponite clay for the catalytic oxidative abatement of chemical warfare agents”, Angew. Chem. Int. Ed. 2014, 53 (38), 10095-10098 (2014) DOI: 10.1002/anie.201405134.
2. Adriano Sacco, Andrea Lamberti, Matteo Gerosa, Chiara Bisio, Giorgio Gatti, Fabio Carniato, Nadia Shahzad, Angelica Chiodoni, Elena Tresso, and Leonardo Marchese “Towards quasi-solid state Dye-sensitized Solar Cells: effect of γ-Al2O3 nanoparticle dispersion into liquid electrolyte”, Solar Energy 111, 125–134 (2015).
3. Vittoria Sacchetto, Diana F. Olivas Olivera, Geo Paul, Giorgio Gatti, Ilaria Braschi, Gloria Berlier, Maurizio Cossi, Leonardo Marchese, and Chiara Bisio “On the interactions of toluene and n-hexane on high silica zeolites: an experimental and computational model study”, J. Phys. Chem. C, 2015, 119 (44), pp 24875–24886.
4. Chiara Vittoni, Vittoria Sacchetto, Daniele Costenaro, Simone Mastroianni, Andreas Hinsch, Leonardo Marchese and Chiara Bisio “Gelation of solvent-free electrolyte using siliceous materials with different size and porosity for applications in dye sensitized solar cells”, Solar Energy, vol. 124, pp. 101-113, 2016.
5. C. Palumbo, C. Tiozzo, N. Ravasio, R. Psaro, F. Carniato, C. Bisio, and M. Guidotti, “An efficient epoxidation of terminal aliphatic alkenes over heterogeneous catalysts: when solvent matters” Catalysis Science and Technology, DOI: 10.1039/c5cy01639h.