

Chiara Vittoni

PERSONAL DATA

Place and Date of Birth: Borgomanero (Italy), 30.06.1989

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BIO AND EDUCATION

In progress: **Visiting PhD Student** at the Institute for Materials and Processes, University of Edinburgh's School of Engineering.

In progress: **PhD Student in Chemistry & Biology** at Dipartimento di Scienza ed Innovazione Tecnologica, Università degli Studi del Piemonte Orientale.

April 2014: **Master's Degree in Chemical Sciences** at Dipartimento di Scienza ed Innovazione Tecnologica, Università degli Studi del Piemonte Orientale, with mark 110/110 cum laude.

October 2011: **Bachelor's Degree in Materials Science** at Facoltà di Scienze Matematiche, Fisiche e Naturali, Università degli Studi del Piemonte Orientale "Amedeo Avogadro", with mark 110/110 cum laude and honorable mention.

July 2008: **High School Scientific Degree** at Liceo Scientifico "Galileo Galilei" (Borgomanero, NO), with mark 100/100.

UNIVERSITY CAREER

2014	Research Fellow, Università del Piemonte Orientale
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MAIN FIELDS OF INTEREST

1. Dye Sensitized Solar Cells (DSSCs)
2. Siliceous Materials
3. CO₂ capture

CURRENT ISSUES OF RESEARCH

1. Comparative study of CO₂ adsorption on different siliceous materials

In recent decades, the atmospheric concentration of CO₂ is strongly increasing, contributing to the change of the Earth's average temperature. In order to prevent the increase in the

atmospheric concentration of CO₂, a very promising technology is the CO₂ capture using solid sorbents. Different inorganic-organic siliceous materials have been prepared and tested as sorbents for CO₂. Several silica based materials with different structure, morphology and particle size were selected in order to understand the effect of their physico-chemical properties on the CO₂ adsorption.

PAPERS

1. 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, **2016**, 124, 101-113.

AWARDS

1. Winner of Prize for the best Master thesis in memory of prof. Giuseppe Dellacasa (AA. 2012-2013).