

Francesco Bellucci

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Professional Experience

- **2011 – Present.** Postdoctoral Fellow, Chemical Sciences and Engineering, ANL
- **2007 – 2011.** Research Assistant, Earth and Environmental Sciences Department, University of Illinois at Chicago
- **2005-2007.** Teaching Assistant, Earth and Environmental Sciences Department, University of Illinois at Chicago.
- **2004.** Co-researcher, Hydea Agency, Firenze, Italy
- **2001-2004.** Research Assistant, Universita` degli Studi di Firenze, Italy

Research Highlights

- Study of ion adsorption and dissolution processes at the mineral-solution interface employing in-situ X-ray Reflectivity, Resonant Anomalous X-ray Reflectivity, and Atomic Force Microscopy methods.
- Stable Isotope and Isotopomeric studies of natural systems (travertine deposits), environmental contaminants (RDX explosive, Perchlorate ions) and greenhouse gases emissions (CO₂, CH₄, N₂O).
- Monitoring of geochemical precursors of volcanic eruptions and atmospheric micro-pollutants in volcanic gaseous emissions.

Education

- **2011.** PhD, Earth and Environmental Sciences, University of Illinois at Chicago
- **2007.** MS, Earth and Environmental Sciences, University of Illinois at Chicago
- **2003.** BS, Geology, Universita` degli Studi di Firenze, Firenze, Italy

Awards

- **2011,** Association of Engineering Geologists (AEG), Best Student Paper Competition, 2nd place.
- **2010,** LAS Earth and Environmental Sciences Demar-Rodolfo Scholarship
- **2008,** UIC Earth and Environmental Sciences Excellence in teaching

Professional Society Affiliations

- American Chemical Society
- Geochemical Society
- Association of Engineering Geologists

Publications

- Bellucci F., Bogner J., Sturchio N.C. Greenhouse Gas Emissions at the Urban Scale. (Elements, accepted).
- Yang Y., Schlepütz C.M., Bellucci F., Allen M.W., Durbin A.M., Clarke R. Structural Investigation of ZnO O-polar (000-1) Surfaces and Schottky Interfaces. J. Phys.: Condens. Matter, in review.
- Bellucci F., Kozak J.A., Heraty L., Sturchio N.C., Gonzalez-Meler M.A., O'Connor C. Sources of N₂O and CH₄ Greenhouse Gas Emissions from Three Municipal Wastewater Treatment Plants. Science of the Total Environment, in review.
- Bellucci F., Gonzalez-Meler M., Sturchio N.C., Bölke J.K., Ostrom N.E., Kozak A.J., 2012. Stable Isotope and Isotopomeric Constraints on N₂O Production in Wastewater Treatment Plants. (In preparation)
- Bellucci F., Kozak J.A., Heraty L., Carbone J., Sturchio N.C., O'Connor C., Kollias L., Lanyon R., 2010. Greenhouse Gas Emissions from Three Chicago Wastewater Treatment Plants. WEFTEC 2010, New Orleans, Proceedings.