



Giovedì 22 Giugno 2017
alle ore 11.30

presso l'aula Magna dell'Edificio F
Area della Ricerca CNR
Via Madonna del Piano, 10 Sesto F.no (Firenze)

il **Prof. Kazuki NAKANISHI**

Department of Chemistry, Graduate School of Science, Kyoto University
Japan

terrà il seguente seminario:

"Hierarchically macro/mesoporous monoliths in metal oxide and phosphate systems via aqueous sol-gel route"

Dr. Pierluigi Barbaro
Primo Ricercatore

Dr. Francesco Vizza
Direttore

Abstract:

Utilizing an epoxide-mediated sol-gel transition combined with the phase-separation, macroporous monoliths in various metal oxides and phosphates compositions can be prepared from ionic precursors such as metal salts. The continuous gel skeletons in micrometer dimensions are composed of microcrystalline metal oxide or phosphate which is hybridized with hydrogen-bonding polymers such as poly(acrylic acid) or poly(acrylamide). Controlled oxidation of organic components in the gel skeletons results in oxide (phosphate) – carbon composite with appreciable specific surface area.

Biographic sketch:

Kazuki Nakanishi, Male

Born in Osaka, Japan on 22nd January 1961

1983 Bachelor of Engineering, Kyoto University, Japan

1985 Master of Engineering, Kyoto University, Japan

1991 Doctor of Engineering, Kyoto University, Japan

1986 Assistant Professor, Faculty of Engineering, Kyoto University

1995 Associate Professor, Graduate School of Engineering, Kyoto University

2000 Guest Professor, Johannes-Gutenberg University, Mainz, Germany (3 mos.)

2005 Associate Professor, Graduate School of Science, Kyoto University

2011 Invited Professor, University of Montpellier II, Montpellier, France (1 mo.)

1997 D.R. Ulrich Award (International Sol-Gel Society)

1999 Vittorio Gottardi Award (International Commission on Glass)

2010 Commendation for Science and Technology (Ministry of Education, Culture, Sports, Science and Technology, Japan)

2006 Academic Prize (The Ceramic Society of Japan)

2003- Board Member, Japanese Sol-Gel Society (2013- Vice President)

2007- Editorial Board, Journal of Sol-Gel Science and Technology, Springer

2009- Co-editor, Journal of Sol-Gel Science and Technology, Springer

2007-2013 Board of Directors, International Sol-Gel Society (2011-2013 Vice President)

2015 Chair of XVIII International Sol-Gel Conference (International Sol-Gel Society)

2017 Conference Chair of 5th International Conference on Multifunctional, Hybrid and Nanomaterials (Elsevier)

> 300 peer reviewed publications

> 12500 total citations (h index = 55)

> 40 authored or co-authored book chapters

> 60 domestic and international patents

Field of expertise: Synthesis of hierarchically porous monolithic materials in organic, inorganic and organic-inorganic hybrid compositions, and their applications to separation sciences and medical /catalytic/bioreactor devices.