



SAPIENZA
UNIVERSITÀ DI ROMA

AVVISO DI SEMINARIO

Nel quadro delle iniziative del Progetto di Ricerca Università 2013 “Lab-on-Chip system for mycotoxin detection in food commodities”, del corso di Strumentazione Biomedica II per Ingegneria Biomedica e del Dottorato di Ricerca in Tecnologie dell'Informazione e delle Comunicazioni del DIET, il Dr. Ing. Roald Tiggelaar dell' Università di Twente (Olanda) del MESA+ Institute for Nanotechnology terrà il seminario dal titolo:

Running projects at the research-group Mesoscale Chemical Systems

Il seminario, aperto a studenti e docenti interessati, avrà luogo **il giorno 4 novembre pv alle ore 10:30 nella Sala degli Affreschi** della Facoltà di Ingegneria Civile e Industriale, in via Eudossiana, 18.

ABSTRACT. The seminar gives an overview of the research projects currently running within the Mesoscale Chemical Systems group of the University of Twente, The Netherlands. Besides an overview of the organization of the research chair and its facilities, highlights will be given of projects dealing with the fabrication of silicon nano/micro-structured solar-to-fuel devices, cost-effective micro-fabrication of highly-uniform silicon sieves for cell trapping on micro-electrode arrays, and microfluidic platforms for nanoneedle-based electron emission in dielectric liquids for chemical synthesis. Microfabrication of the required chips is done within the Nanolab cleanroom facilities of the MESA+ Institute for Nanotechnology.

Curriculum Vitae. Roald Tiggelaar works as post-doctoral researcher at the research chair “Mesoscale Chemical Systems” of the University of Twente, The Netherlands. After receiving his MSc degree in Electrical Engineering (in 2000), he obtained his PhD degree in 2004, on silicon-technology based microreactors for heterogeneous catalytic partial oxidation reactions. From January 2005 to September 2011 he worked on the development of microreactors for high-pressure organic chemistry, and microfluidic systems embedded in fused silica. During October 2010–May 2011 he was employed as project-manager and design-engineer at iX-factory GmbH in Dortmund, Germany. In June 2011 he returned to academia, and currently he is working on preconcentration chips to analyze human breath for diagnosis of lung diseases.