

**13. Oktober 2010, 18:15 Uhr**

**Luisa DE COLA**

Westfälische Wilhelms-Universität Münster

### **Soft and Hard Luminescent Nano-objects**

The creation of nano/microstructures based on molecular components possessing defined functionalities is a very fascinating field at the cross point of different disciplines. Our effort, in this talk, focuses on the assembly of luminescent molecules to form crystalline or amorphous, rigid or soft materials. Also the use of other crystalline porous scaffolds, zeolites L, which are transparent, stiff, nanocontainers will be illustrated. The clever choice of molecules and such nano-containers can lead to the labelling, targeting and killing of antibiotic resistant bacteria.

Moderator: **Ulrich SCHUBERT** (ÖAW, TU Wien)

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### **AUER VON WELSBACH LECTURES**

**Veranstalter:** Österreichische Akademie der Wissenschaften (ÖAW) gemeinsam mit der Industriellenvereinigung Wien

**Veranstaltungsort:** Österreichische Akademie der Wissenschaften, Festsaal  
1010 Wien, Dr. Ignaz Seipel-Platz 2

**Nächster Termin:** Mittwoch, 12. Jänner 2011, 18:15 Uhr

**Helma WENNEMERS**, Universität Basel

#### **Minieiweiße - Alleskönner? Von Süßstoff, Katalysatoren und Nanopartikeln**

Süßstoff, Hormone, Schlangengifte, Antifaltenwirkstoffe - all diese Eigenschaften und noch viele mehr werden von unterschiedlichen Minieiweißen, im Fachjargon Peptiden, erfüllt. Peptide sind daher in unserem Alltag allgegenwärtig und sind wie ihre größeren Verwandten, die Proteine, aus Aminosäuren aufgebaut. Im Vortrag wird verdeutlicht, wieso Peptide derart viele verschiedene Aufgaben übernehmen können. Zudem wird gezeigt, wie Peptide mit bisher unbekannt Funktionen, zum Beispiel Katalysatoren („Minienzyme“) und Stoffen zur Herstellung von Nanopartikeln, entwickelt werden können.

## Luisa DE COLA – biografischer Hintergrund

### Scientific Career

- 1978-1983 Laurea in Chemistry summa cum laude, University of Messina, Italy.  
1984-1986 Postdoctoral fellow (NIH) at the Virginia Commonwealth University, Richmond, USA.  
1986-1990 Researcher National Research Council, CNR, Istituto F.R.A.E, Bologna, Italy.  
1987-1988 Visiting researcher, University of Fribourg, Switzerland.  
1990-1998 Assistant Professor University of Bologna, Italy.  
1998-2004 Full Professor, University of Amsterdam, The Netherlands, chair of Molecular Photonic Materials.  
Since 2005 Full Professor (C4) in Physics and Chemistry, University of Münster, Germany, chair of Nanoelectronics and Nanophotonics.  
2005-2006 Adjunct Professor, HIMS, University of Amsterdam, The Netherlands.  
Since 2006 Part-time Professor Department of Chemistry University of Twente, The Netherlands.

### Awards and Professional Appointments

- 1986 Prize for chemistry "Fondazione U. Bonino e M.S. Pulejo".  
1987-1989 CNR scholarship.  
1992-1997 Scientific Advisor at the F.R.A.E.-CNR, Bologna.  
1993 Prize for Chemistry of the "Accademia di Scienze Fisiche e Matematiche di Napoli".  
1995 Federchimica National Prize "per un futuro intelligente (for a smart future)".  
1995 International Prize of the European Photochemistry Association "Grammaticakis-Neumann".  
2004 Finalist of the Descartes Prize 2004.  
2003-2007 Member of the Advisory Board for the Chemistry Department, Imperial College of London.  
Since 2005 Member of the Board of the Center for Nanotechnology, CeNTech, Muenster.  
2009 European Research Council, ERC Advanced Grant Award.

### Other activities

President of the Evaluation Committee for the Department of Chemistry University of Padova (Italy). Member of the Evaluation Committee for the Department of Chemistry Université Louis Pasteur and of the Institut de Science et d'Ingénierie Supramoléculaires, ISIS, Strasbourg, France. She was a member of the editorial board of Inorganic Chemistry and of Chemical Society Review. She was also the coordinator of European Projects (LIMM and Marie Curie Training Site) and she is at the moment the coordinator of the European project INOFEO, in the frame of the NanoSci-Europe programme. She has organized several international conferences and schools all over Europe. She has been visiting professor in Leuven; University of Bordeaux; University of Santiago de Compostela, Spain; University of Malaga, Spain; ISIS, Strasbourg, France.

### Scientific Output

200 scientific publications (peer reviewed), more than 100 conference contributions (plenary and invited lectures), more than 80 lectures for scientific colloquia and seminars, Editor of 2 books, 13 International Patents.

Quelle: [http://www.uni-muenster.de/Physik.PI/DeCola/Idc\\_cv.html](http://www.uni-muenster.de/Physik.PI/DeCola/Idc_cv.html)