

Prospects on Nanotechnology in Biomedicine

Dr. Marc J. Madou
Chancellors Professor
University of California Irvine

11 am-12 pm
Nanotechnology;
Icarus revisited?
12 pm- 1pm
Lunch Social

1 pm-2:15 pm
The CD as a Diagnostic
Platform.
Smart Drug Delivery
2:15 pm- 3 pm
Open Forum: Questions
and Answers

Sponsored through a University
of Kentucky Research Professorship
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MARC J. MADOU - Biographical Sketch



Dr. Marc J. Madou is the Chancellor's Professor in Mechanical and Aerospace Engineering and Biomedical Engineering at the University of California Irvine (UCI). He is also Professor in the Integrated Nanosystems Research Facility (INRF) at UCI and a NASA Ames Research Center Associate. In 2004, he was named a Distinguished Honorary Professor of the Indian Institute of Technology (ITT) in Kanpur, India. Dr. Madou received a B.S. in Physical Chemistry in 1973, a MS in Physical Chemistry in 1975 from Rijksuniversiteit, Ghent, Belgium. In 1978, he completed his Ph.D. in Semiconductor Electrochemistry from the Solid-State Physics Laboratory at Rijksuniversiteit, Ghent, Belgium. Dr. Madou is also Principal Microfabrication Applications and co-founder of several start-up companies in the BioMEMS and MEMS areas.

Prior to joining UCI, Dr. Madou was Vice President of Advanced Technology at Nanogen in San Diego, California from 2001-2002. From 1997-2000, Dr. Madou was Director of the NSF Center for Industrial Sensors and Measurements (CISM) at The Ohio State University where he held an Endowed Chair position in Chemical and Materials Engineering as well as in Chemistry.

Dr. Madou is also Principal of Microfabrication Applications, and was a Visiting Scholar at UC Berkeley (1996-2000), a Visiting Miller Professor at UC Berkeley (1995-1996), a Visiting Professor and Senior Advisor to CADM at Louisiana State University, Senior Scientific Advisor to CAMD (1994-1995), founder and President of Teknekron Sensor Development Corporation (TSDC) (1989-1993), founder and Director of the Stanford Research Institute (SRI) International's Microsensor Department (1982-1989), a Senior Materials Scientist, Materials Research Laboratory SRI International (1981-1982), a Visiting Scientist SRI International (Menlo Park, CA), Materials Scientist, Materials Research Laboratory under Dr. S. R. Morrison (1979-1980, and an Assistant Professor at (1978-1981) at Rijksuniversiteit, Ghent, in his native Belgium.

Dr. Madou is a leading figure in micromachining, fluidic devices, and miniaturized biosensors, as well as in the area of responsive polymers. Dr. Madou has experience both as an academician and an entrepreneur, and has served on the scientific board of several biotechnology companies and editorial boards of scientific journals. He also served as Regional Editor for Sensors and Actuators B, North and South America until August of 2005. His most recent business ventures include being the co-founder of ChipRx Inc., a biotechnology company specialized in the fabrication of miniaturized implantable responsive drug delivery devices, as well as of SenseOmics Inc., which is specialized in biosensing systems based on genetically engineered proteins and cells. Dr. Madou has written three books and counts with over 80 publications. He is the inventor of 13 patents, with another 5 patents pending. His most prominent recent publication is the second edition of the textbook, "Fundamentals of Microfabrication". This textbook is in widespread use throughout the United States and the world, and is regarded as the "bible" of microfabrication. Dr. Madou is currently finishing up the third edition of this textbook. The research of his group has been featured in scientific journals, as well as in the popular press including newspapers from all over the world.