Didier Astruc's group in Bordeaux is working on the interplay between metallodendrimers and transition-metal nanoparticles. The starting point is hard-core transition-metal inorganic and organometallic

chemistry, electron-transfer processes and molecular electronics. Applications of this basic research range, in his group, from molecular nanobatteries and catalysis inside nanoreactors in water to the use of functional gold nanoparticles for biological anion sensing and vectorization of anti-cancer drugs.

Didier Astruc was born in Versailles and studied in Rennes, Britanny, where he passed his Ph. D. under the guidance of René Dabard before a post-doc at MIT with Dick Schrock (2005 Nobel Laureate). He has been a Professor of Chemistry at the University Bordeaux 1 since 1984, except for a sabbatical year in U.C. Berkeley with K. Peter C. Vollhardt (1990-1) where he wrote his first book "E ec ron r nsfer nd dic Processes in r ns1_on Me_ Che Is ry", prefaced by 1983 Nobel Laureate Henry Taube (VCH, New York, 1995). In 2000, he published a textbook in French "Chi ie Org no e_ u e" (EDP Sciences, Les Ullis; Spanish version: Reverte, 2003) that was completed to "Org no e_ ic Che is ry nd C _ ysis" (Springer, Berlin, 2007). He is the author or co-author of 350 research papers and has given 340 research lectures. He has co-edited a volume of ". nd oo of E ec ron r nsfer" with V. Balzani and P. Mattay, and has edited three books including "Modern Arene Che Is ry" (Wiley-VCH, 2004) and "N nop r \underline{lc} es nd C $\underline{}$ ys \underline{ls} " (Wiley-VCH, 2007) and several special jo-271.755(o)0.930477994(t)5.77994(47(c)1.648747(0)0.929747(0)0.929747(4)0.929747(4)0.929747(5)(57.1777(a)1.64281(n)0.9296522(a)1.64011993 H Schmidhauer Munich

- 1993 H. Schmidbauer, Munich
- 1994 A. J. Bard, U. Texas, Austin
- R. Huisgen, Munich 1996
- 1998 J. M. J. Fréchet, Berkeley
- 1999 R. W. Field, M.I.T.
- 2000 I. Dance, New South Wales
- 2001 K. C. Nicolaou, San Diego
- 2002 R. R. Birge, Connecticut/Syracuse
- 2003 D. Fenske, Karlsruhe
- 2004 A. Padwa, Emory
- N. Dovichi, Washington State 2005
- 2006 K. N. Raymond, Berkeley
- 2007 K. Tamao, RIKEN and Kyoto University
- 2008 P. Corkum, NRC, Ottawa



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The 3M University Lecturer in Chemistry 2009 **DIDIER ASTRUC**

Université Bordeaux 1 Bordeaux. France

cdde feef D

Prof Astruc i present three ectures

Lecture 1

Fro Org notr nsition et Che istry to Met odendri ers App ic tions to Sensing nd Mo ecu r E ectronics

Organo-iron activation of small arene molecules provides a rare, but very simple and powerful