



Faculté des arts et des sciences
Département de chimie
SÉMINAIRE CRMAA



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Making molecules visible to the naked eye



There are many problems of contemporary interest in chemistry that have solutions that can be found in the answers developed to very elementary questions. What chemical substances are present? What are their concentrations? How do these compositions change with time? How might the chemical evolution of the system be controlled deterministically? In this lecture I will explore a set of approaches that we are taking to answer questions of this sort, doing so in contexts that provide fundamental new competencies for chemical analysis and sensing more generally. This work exploits two enabling tools—molecular self assembly and powerful new methods of nanoscale fabrication—to create devices that can provide direct quantitative visualizations of complex chemical systems, ones that effectively render them “visible to the naked eye”. This approach to the design of chemically responsive optical systems appears to hold special promise for bioanalytical sensing and demonstrations of such applications will be described.

Le mercredi 7 novembre 2007
Salle M-415, Pavillon Roger Gaudry
11 h 30

Le Département de chimie organise annuellement plusieurs séries de conférences et séminaires et tient à remercier particulièrement ses commanditaires qui rendent ces programmes possibles : **AstraZeneca, Boehringer Ingelheim, Centre de recherche sur les matériaux auto-assemblés du FQRNT, Eisai, Fondation Barré, Isis Pharmaceuticals, IUPAC-Macro '90, MethylGene, Merck Frosst**. Les conférenciers prestigieux invités, dans le cadre des grandes conférences, offrent à la communauté scientifique de Montréal les meilleures présentations dans les différents domaines de pointe de la chimie.