



# 学术报告



State Key Laboratory  
of Chemical Resource Engineering

**报告名称: Ionic polymerization in aqueous dispersions: the history, the foundations and the future constructions**

**(2017年5月5日下午3:45-4:45, 有机楼312)**

**报告人: Dr. François Ganachaud,  
Directeur de Recherche, CNRS**



## 报告人简介:

**F. Ganachaud studied chemistry at CPE Lyon before graduating with a Ph.D. in 1997 from University Claude Bernard in Lyon. After 1 year postdoctoral work in Sydney at the KCPC, he took a CNRS research position first in Paris (1999–2003) and then in Montpellier (2003–2011, habilitation in 2004). Back to Lyon from September 2011 as a senior CNRS scientist, his current research interests are (i) ionic polymerization in aqueous media, (ii) functional silicones and related materials, and (iii) emulsification by the Ouzo effect.**

**F. Ganachaud has been working on the field of polymerization in emulsion for now 20 years, with more or less success, but a constant faith on it. With his colleague Sergei Kostjuk, from Belarus, they both have lead some projects (and found the fundings !) to develop several generation of catalysts. The last one now allows to synthesize in one pot, in excess water, block copolymers of isoprene and styrene of large molar masses. With more than 20 papers on the topic, they have aroused the curiosity of several international researchers, including M. Sawamoto, R. Faust, K. Landfester, R. Storey and Y. Wu.**

## 报告摘要:

Anionic and cationic polymerizations carried out in excess of water have been known for long, although they were considered as single events not to be reproduced or acknowledged. In the 50s-70s, a great deal of work has particularly been devoted by Dow Corning to the polymerization of cyclosiloxanes, later reconsidered and studied in Chinese labs. When I took over this research, the main challenges to overcome to make these processes 'popular' were first, to understand the basic features of the process, second, to enlarge the process to as many monomers as possible, and third, to promote the generation of new catalysts with more efficiency and productivity.

The purpose of my talk today is to give you a flavour of how the ionic polymerization in emulsion (IPE) works, and more likely, to show you how such an improbable research could lead to important industrial outcomes. I will first describe the experiments done by us and others mainly on p-methoxystyrene, to then extend it to dienes, including isoprene, and finally shown how to promote high molar polymer synthesis in direct emulsion.

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