

CHEMTOB Abraham

43 years

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Lecturer in Polymer Chemistry University of Haute-Alsace (FR)

Background

- Since Oct. 2015 *Lecturer: Institut de Science des Matériaux de Mulhouse IS2M*, CNRS UMR7361, University of Haute-Alsace, FRANCE
- 2006-2015 *Lecturer: Département de Photochimie Générale DPG*, University of Haute-Alsace, FRANCE. Habilitation obtained in 2012
- 2005-2006 *Assistant Researcher: Institute for Polymer Materials POLYMAT*, University of the Basque Country, SPAIN (Prof. José M. ASUA)
- 2003/2005 *Assistant Researcher: Key Center for Polymer Colloids KCPC*, University of Sydney, AUSTRALIA (Prof. Robert G. GILBERT)
- 2000/2003 *PhD Student: Laboratoire de Chimie des Polymères Organiques* University of Bordeaux, FRANCE (Dr. Valérie HEROGUEZ). “Ring-opening metathesis polymerization (ROMP) of cyclo-olefins in dispersed media”

Research Interests

MAIN RESEARCH TOPICS: photopolymerization, emulsion polymerization processes, hybrid materials, mesoporous materials, sol-gel chemistry, self-assembly.

AC has supervised some 11 PhDs and 5 postdoctoral fellows. He is author of 89 refereed publications including 2 reviews, 5 book chapters and 5 patents. He has co-chaired 5 international events: the 2005 and 2006 Emulsion Courses (POLYMAT, Spain), the 2007 Polyray (Mulhouse), the 2009 Club Emulsion (Mulhouse), the 2019 colloquium of the Groupe Français des Polymères. AC research activities have focused on **innovative photopolymerization mechanisms and processes** with 3 key topics: **1. Radical Photopolymerization in Aqueous Dispersed Media**, **2. Inorganic Sol-Gel Photopolymerization** and **3. Step-Growth Photopolymerizations**. As main achievements, AC research has developed novel photoreactors for eco-efficient emulsion polymerization. He has set up a novel inorganic photopolymerization route to design self-assembled and mesoporous nanocomposites. In 2012-2015, he was appointed coordinator of a 3-year Industry-Academy ANR-funded research project focused on emulsion chain radical photopolymerization. AC is now coordinating an “innovative training network” (ITN) project entitled *Towards Next generation Eco-efficient PHOTO and EMULSION Polymerizations* funded through the Horizon 2020 Marie Skłodowska-Curie Actions Programme. The European project aims at training a group of 8 PhD students through a high-quality research network including 8 internationally reputed academic institutions, 4 companies and 2 non-profit organizations.

Selection of Recent Publications

- (1) Tkachenko, V.; Ghimbeu, C. M.; Vaultot, C.; Vidal, L.; Poly, J.; **Chemtob, A.** RAFT-Photomediated PISA in Dispersion: Mechanism, Optical Properties and Application in Templated Synthesis. *Polym. Chem.* **2019**, *10*, 2316–2326.
- (2) Pinaud J. **Chemtob A.** et al. In Situ Generated Ruthenium-Arene Catalyst for Photoactivated Ring-Opening Metathesis Polymerization through Photolabile N-Heterocyclic Carbene Ligand. *Chem. Eur. J.* **2018**, *24*, 337–341.
- (3) Jasinski, F.; Zetterlund, P. B.; Braun, A. M.; **Chemtob, A.** Photopolymerization in Dispersed Systems. *Prog. Polym. Sci.* **2018**, *84*, 47–88.
- (4) Feillée N, De Fina M, Ponche A, Vaultot C, Rigolet S, Jacomine L, **Chemtob A** et al. Step-growth thiol-thiol photopolymerization as radiation curing technology. *J. Polym. Sci.: Polym. Chem.* **2017**, *55*, 117–28.
- (5) **Chemtob A**, Ni L, Crouxé-Barghorn C, Boury B. Ordered Hybrids from Template-Free Organosilane Self-Assembly. *Chem. Eur. J.* **2014**, *20*, 1790–806.