

Prof. Etienne FLEURY

Ingénierie des Matériaux Polymère /IMP@NSA UMR CNRS 5223
Institut National des Sciences Appliquées Bat. Jules Verne
69621 VILLEURBANNE Cedex – France -
Tel: 00 (33) 4.72.43.63.35 - Fax: 00 (33) 4.72.43.85.27
e-mail: etienne.fleury@insa-lyon.fr

EDUCATION

- 1999 : University Joseph Fourier Grenoble
Habilitation à Diriger des Recherches
1986 : Laboratoire de Chimie macromoléculaire CNRS
Ecole Nationale Supérieure de Chimie de Montpellier
PhD Diploma 'Macromolecular Chemie'
Supervisors: Pr. B. Boutevin & Dr. G. Baudouin
1983 : Bordeaux University of Sciences
Diploma of Specialized Studies (D.E.S.S)
Speciality: "Macromolecular Materials & Composites"
1981 : Montpellier University of Sciences
Master Science (D.E.A)
Speciality: "Organic chemistry"

PROFESSIONAL EXPERTISE

- 01.19 to 12.22 **Vice-head of the Scientific Council of INSA**
Since 10/2020 **Professeur des Universités Classe Exceptionnelle 2 – INSA Lyon**
03.11 to 31.20 **Head Laboratoire IMP@INSA Ingénierie des Matériaux Polymères**
Institut National des Sciences Appliquées de Lyon (IMP@INSA)
vice Head UMR CNRS 5223
Since 09/2007 **Professeur des Universités 1^{ère} Classe – INSA Lyon**
Since 10/2005 **Professeur des Universités 2^{ème} Classe – INSA Lyon**
Laboratoire des Matériaux Macromoléculaires UMR #5627 CNRS
INSA de Lyon - UMR 5627 CNRS / IMP
02.02 to 09.05 **Silicone Synthesis Group Leader (Rhodia Silicone)**
11.99 to 01.02 **Polymer Synthesis Group Leader (Rhodia Research)**
1996 to 2005 **Principal scientist (Rhodia and Rhône-Poulenc Research)**
1986 to 1999 **Research scientist (Rhodia and Rhône-Poulenc Research)**
1984/1986 **PhD Diploma 'Macromolecular Chemie'**
Laboratoire de Chimie macroléculaire (ENSCM)

Award **Chevalier dans l'ordre des palmes académiques (juillet 2019)**

* EXPERTISE

- Polymer chemistry (step growth and chain growth polymerization),
- Polysaccharides (cellulose (wood), galactomannan...) modification & physico-chemical
- Silicone chemistry

* Research activities

- . Publications: 115
- . Patents: 60
- . Communications (oral): > 40 invited speaker and 138 in national and international conferences

*** Recent publications related to my research activity**

W. Nzahou Ottou, A. Boulègue Mondière, H. Parisot, D. Blanc, D. Portinha, E. Fleury
Imidazolium triflimide-based Brønsted acidic ionic liquid as organocatalyst to trigger the cationic ring-opening polymerization of cyclotrisiloxanes”
Polymer Chemistry, 2023, 14, 4693-4703

L. Remy, G. Sudre, A. Charlot, E. Fleury
Passerini modifications of carboxymethyl cellulose by using isocyanides and α -substituted ketones: towards dually functionalized derivatives and chemically cross-linked hydrogel
Carbohydrate Polymer, 2023, 320, 121228

A. Bouchut, B. Cathala, C. Moreau, A. Pettignano, J. Bernard, A. Charlot, E. Fleury
Cellulosic surfaces modification by adsorption of reactive polysaccharides
Cellulose 2023, 30, 1-19

L. Fauvre, E. Fleury, F. Ganachaud, D. Portinha
Extra-soft self-healable silicone elastomers prepared by aza Michael reaction - Synthesis and supramolecular association of bisamide-PDMS multiblock copolymers
ACS Appl. Polym. Mater. 2023, 5, 2, 1229–1240

B. Caprin, G. Viñado-Buil, G. Sudre, X.P. Morelle, F. Da Cruz-Boisson, A. Charlot, E. Fleury
Carrageenan Associated with Fructose/Glycerol/Water LTTM: Toward Natural Thermosensitive Physical Gels
ACS Sustainable Chemistry & Engineering, 2022, 10, 45, p14817-14825

L. Fabre, C. Rousset, K. Monier, F. Da Cruz-Boisson, P. Bouvet, M.T. Charreyre, T. Delair, E. Fleury, A. Favier
Fluorescent polymer-AS1411-aptamer probe for dSTORM super-resolution imaging of endogenous nucleolin
Biomacromolecules 2022, 23(6):2302-2314

J. Clenet, G. Duaux, D. Portinha, E. Fleury
Polyester thermosets from carbohydrates
Carbohydr. Chem., 2022, 45, 640–664

D. Gerard, F. Mechin, R. Saint-Loup, E. Fleury, J. P. Pascault
Study of the carbamate/aldehyde reaction, a new pathway towards NIPU materials
Progress in Organic Coatings 2022, 165, 106728

Pinel A., Prud'homme E., Charlot A., Fleury E., Jorand Y.
Earthen construction: demonstration of feasibility at 1/2 scale of poured clay concrete construction
Construction and Building Materials 2021, 312, 125275

G. Duaux, E. Fleury, D. Portinha
Biobased poly(ester-co-glycoside) from reactive Natural Brønsted Acidic Deep Eutectic Solvent Analogue
Polymer Chemistry 2021, 12, 5485-5494

B. Zhang, G. Sudre, G. Quintard, A. Serghei, J. Bernard, E. Fleury, A. Charlot
Imidazolium-based poly(ionic liquid)/ionic liquid solutions: rheology, structuration and ionic transport properties
Polymer 2021, 237, 124305

L. Fauvre, D. Portinha, E. Fleury, F. Ganachaud Thermoplastic silicone elastomers as materials exhibiting high mechanical properties and/or self-healing propensity
Journal of Adhesion Science and Technology (TAST), 2021, 35:24, 2723-2735

Caprin B., Charton V., Rodier J.D., Vogelgesang B., Charlot A., Da Cruz-Boisson F., Fleury E.

Scrutiny of the supramolecular structure of bio-sourced Fructose / Glycerol / Water ternary mixtures: towards green low transition temperature mixtures
Journal of Molecular Liquids, 2021, 337, 116428

Yan X., Chai L., Fleury E., Ganachaud F., Bernard J.
'Sweet as a Nut': Production and Use of Nanocapsules made of Glycopolymer or Polysaccharide shell
Progress in polymer Science 2021, 101429

Hadj Kacem Y., Bougarech A., Quintard G., Abid S., Abid M., Fleury E.
Sulfonated poly (Ester-Urethane) / ionic liquids systems: synthesis, characterization and properties
Journal of Polymer Research (2021) 28:125

Genest A., Portinha D., Pouget E., Lamnawar K., Ganachaud F., Fleury E.
Zwitterionic silicone materials derived from aza-Michael reaction of amino-functional PDMS with acrylic acid
Macromol. Rapid Commun. 2021, 42, 2000372

Depoorter J., 1 Yan X., Zhang B., Sudre G., Charlot A., Fleury E., Bernard J.
All Poly(Ionic Liquid) Block Copolymer Nanoparticles from Antagonistic Isomeric Macromolecular Blocks via Aqueous RAFT Polymerization-Induced Self-Assembly
Polymer Chemistry 2021,12, 82-91

Pettignano A., Leguy J., Heux L., Jean B., Charlot A., Fleury E.
Multifunctionalization of cellulose microfibrils through a cascade pathway entailing the sustainable Passerini Multi-Component reaction
Green Chemistry 2020, 22, 7059 - 7069

Bahé F., Grand L., Cartier E., Jacolot M., Moebs-Sanchez S., Portinha D., Fleury E., Popowycz F.
Direct amination of isohexides via borrowing hydrogen methodology: regio- and stereoselective issues
European Journal of Organic Chemistry 2020, 599–608

* **Training from Research / Teaching Activities**

. Teaching	1 st Level	INSA Lyon (Engineering Initiation)
	2 nd Level	INSA Lyon Materials Engineering Department
	3 rd Level	Master 'Thermosetting Polymer' Master Silicone chemistry

* **Research Management**

- Expert for ANR Agency and ADEME Agency (CE08 in 2015 and 2016 ; CE43 2020, 2021 and 2022),
- Expert for the HCERES (Rouen 2015, Reims 2016, Le Havre 2021)
- Expertise mission on "GREEN CHEMISTRY" of the academic and research institutions of Beijing, Shanghai, Nanjing. Organized by the Ministry of Foreign Affairs and by the Service for Science and Technology of the French Embassy in China (Philippe MAURIN)
- 2020-.... Member of the scientific committee of TECHTERA,
- 2012-2020 Member of the scientific committee of FCBA -Institut Forêt, Cellulose, Bois, Ameublement
- 2014 - Member and Correspondent for the IMP laboratory of the EPNOE- European
- 2014- 2018 Member of the scientific committee of Institut Chimie du CNRS (INC)
- Referee for Polymer journals: JPS, Polymer, Cellulose, Carbohydrate Polymer, JAPS, Biomacromolecules, Macromolecules...

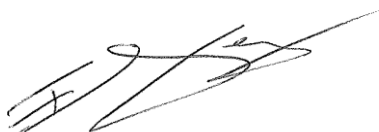
- *Scientific Expert for chemical companies: Solvay (2012, 2014, 2015, 2022), Givaudan (2015-2016), Téréos (2016-2017), ST Gobain (2015, 2016, 2017, 2018, 2022, 2023), Elkem (2007 à 2010 ; 2014 to 2023 member of the Open innovation group), ECIPA (2006), Roquette (2006) ; Groupe SEB (2023)*
- *Member of the GFP (French Polymer Society)*
- *Member of GDR Dumbio*

*** Scientific Committee Member**

- *10th European Silicon Days Conference Lyon, 10th - 12th July 2023 (France) as the conference and programme chair*
- *Workshop interne IMP, "Fluorescence imaging and polymers: applications to materials and life science" Lyon, 4 avril 2019*
- *32nd International Conference of the Polymer Processing Society (PPS-32) July 2016, Lyon, France*
- *French-Chinese Conferences on Green Chemistry (FC2GChem), International Conference Bio-Based Lyon (France) (May 2016)*
- *The International Conference Bio-Based Materials and Composites-ICBMC 2014, Montréal, Canada*
- *French-Chinese Conferences on Green Chemistry (FC2GChem), International Conference Bio-Based Wuham/ Shangai (nov 2014)*
- *Materials and Composites-ICBMC 2012, Marrakech, Maroc*
- *GFP 2012 Grenoble 19 au 22 novembre 2012 41ème colloque national (France)*
- *PolyRay 2012 - Xème Colloque du Club PolyRay les 28 et 29 mars 2012 Mans (FR)*
- *PolyRay 2013 - XIème Colloque du Club PolyRay les 11 et 12 mars 2012 à Rouen (FR)*
- *6th European Silicon Days Conference Lyon, 5th - 7th September 2012 (France) as the conference and programme chair*

*** Chairman or Co-Chairman of International Conference**

- *Co-Chairman du 7ème International Polysaccharides Conference EPNOE Nantes 11-15 October 2021*
- *19th International Symposium on Silicon Chemistry (ISOS-2020) and 10th European Silicon Days (ESD-10) in Toulouse (France), 5th to 10th July 2020*
- *5th International Conference on Biobased Materials and Composites March 17-20 2019, Monastir-Tunisia*
- *Co-Chairman d'International Conference Bio-Based Materials and Composites ICBMC, Nantes septembre 2017*
- *Co-Chairman d'International Workshop on Silicon-Based Polymers ISPO, Aussois avril 2015*
- *Co-Chairman du 13ème PolyRay, Oyonnax mai 2015*
- *Co-Chairman du 10th international workshop on silicon-based polymers (ISPO 2015) 29-30 avril 2015*
- *Chairman du 6th European Silicon Days Septembre 2012 (350 attendees, over 20 nationalities)*



Pr. Etienne Fleury