

Prof. Maude JIMENEZ

French nationality, Full Professor, HDR

Born 18th. of May 1981, Pontoise (95), Married, 5 children (2009, 2011, 2014, 2019, 2020)

Unit of Materials and Transformation, UMET (UMR 8207), C6, 59650 Villeneuve d'Ascq cedex

Email : maude.jimenez@univ-lille.fr

EDUCATION and EMPLOYMENT

2024: 1-year Young leaders training program of [Institut de l'entreprise](#) (IHEE), a think tank of French companies : networking and leadership.

2016-now Full Professor (CL1 in 2022) at Université de Lille, UMET, France

2020-now Institut Universitaire de France (IUF) Junior member, (5y)

excellence in science in France (top 2% of French Professors)

2013 Ability to supervise Researchers (HDR) – Université de Lille, France.

2007-2016 Associate Professor ('Maître de Conférences') at Université de Lille, UMET

2006 PhD in flame retardant coatings– ENSCL (Lille) / Akzo Nobel (UK)

2003 Master in organic and macromolecular chemistry, Université de Lille

2003 Engineer (formulation and chemical engineering) @ ENSCL (high school of Chemistry, Lille, France)

CURRENT RESEARCH ACTIVITIES

Main competences in: Smart coatings, Advanced materials and surface treatment processes, Biomimetic Coatings, Self-stratifying coatings, Eco-efficient processes, Environmental Impact & Life Cycle Analysis (LCA) of Materials

- o **Biomimetic surfaces:** use of laser treatment, 3D printing, plasma deposits to design surfaces inspired from nature for anti-fouling, anti-bacterial, anti-icing and self-healing applications
- o **Eco-efficient Self-stratifying coatings :** mechanism of stratification, use of green solvents and bio-based polymers, self-healing properties
- o **Fire retardant and fire resistant coatings:** expertise in thin and thick coatings (intumescence), fire tests design, mechanism of action, improvement of durability
- o **Environmental impact reduction:** optimization of processes to reduce environmental impact, Life cycle Analyses

TEACHING ACTIVITIES

IUT de Lille, chemistry dept. (equiv. level L1-L3); M2 Biomaterials, M2 IRACM
I relate my teaching with my research topics

- o Chemical engineering, Advanced surface treatments, smart coatings, Life Cycle Analysis, materials sciences (192 h/y)
- o **Innovative pedagogy:** serious game, flipped classroom, immersive reality

SCIENTIFIC PRODUCTION

- o 115 peer-reviewed papers with IF (hindex 38), 3 editorials
- o 2 patents (+1 ongoing), 13 scientific mediation articles, 1 book chapter
- o 81 international conf. (oral) and 47 conf. or seminars as invited speaker
- o 29 poster communications

SUPERVIZED RESEARCHERS & AWARDS

10 post-docs and 24 PhD students (18 defended, 6 ongoing)

2020: 1st price "René Dabard – ENSCR 2020" obtained for the PhD work of Laura Geoffroy on fire resistant coatings

2018: 1st price HAS "Hygienic Study Award" for the PhD of S. Zouaghi on antifouling biomimetic surface treatments

2017: "Coup de Coeur" award, Biomimetism contest by CEEBIOS – MABIOLAIT project (PhD S. Zouaghi)

MANAGING RESPONSIBILITIES

o 2024-now Head of PIHM unit (INRAE-UMET), 35 pers., unit dedicated to the study of processes at the interfaces and hygiene of materials in food processing industries

o 2024-now Responsible for graduate school (EDSMRE) for UMET laboratory

o 2022-now Responsible for internships @ IUT de chimie de Lille, around 80 students/year

o 2016-now Elected board member @ IUT de Lille (4000 pers.)

o 2016-2020 Elected Scientific Council member @ ENSCL

o 2014-2017 French Management Committee substitute member for France in COST Flaretex MP1105 (Flame retardant textiles)

o 2014-2017 Academic leader of a multidisciplinary team "Plasma treatments for functional textiles" in the European project 2BFuntex

o 2008-2020 Responsible for a chemical engineering technological hall @ IUT de Lille (> 100k€ investments)

o 2008-2013 Co-responsible for a "Licence professionnelle" (L3) "surface treatment processes and coatings formulation" @ IUT de Lille

o 2004-2005 President of young researchers' section of the French Society of Chemistry (SFC) for the Hauts-de-France region.



SCIENTIFIC ANIMATION

o Project coordination of 11 contracts [CPER, ANR JCJC, industrial contracts, ERC Generator (i-SITE)]- ANR PRCE PREFIBIO (2024-2029)- 650 k€, ANR PRC ECONOMICS (2018-2022) – 650 k€, ANR JCJC STIC (2014-2018) – 300 k€, ERC Generator (2024-2025) -150 k€ and Private grants (Lantor, NL (25 k€) , Saint Gobain Recherche (25 k€), Airbus (200 k€), CAREA (200 k€), JSP International (200 k€))

o Involved at 33% (research time) as young researcher in an ERC Advanced Grant FireBarConcept (2016-2021) (2.5 M€)

o Involved in 20 other contracts (CIFRE, FUI, ANR, ARcir, FNR, France 2030 industrial contracts) since 2010 as PhD supervisor or Workpackage leader

o Organizing and scientific committees of international conferences (ESIA2025, GFP2025, JEPO2023, ECOFRAM2022, FCFP2022, etc.)

EXPERT REVIEWING ACTIVITIES

o 2017-now Editor of Journal of Materials Sciences (IF=4,5), 300 papers/y

o 2022-2024 Panel member of National French research agency (ANR), polymer committee (6 days/year panel meeting + 15 projects evaluated/y)

o Recruitment committees of Assistant and associate Professors and expert for ANR, ANRT, Czech Science Foundation, IWT Belgium

o Jury member for French PhD Theses (10), HDR (2), International PhD referee (7)

o Reviewer for more than 23 journals (publons.com/a/1243327/)

COLLABORATIONS

o Main National Collaborations : Institut Agro Rennes Angers, INRAE BIA, IMT Ales, ANSES, Nantes Université, Université de Corse, INRAE Avignon, UPHF, ULorraine (ENSTIB)

o Main International Collaborations : Texas A&M University (USA)(Prof. M. Grunlan and Prof. J. Grunlan), University of British Columbia (Canada) (Prof. Hatzikiriakos), CRP LIST (Luxembourg)(Dr. Laachachi, Dr. Ruch), Politecnico de Torino (Italy) (Dr. Carosio), Universiti Teknologi Petronas (Malaysia) (Dr. Amir), Islamic Azad University (Iran) (Dr. Zaarei), UCLouvain (Prof. Gohy), Stony Brook Univ. (USA) (Dr. T. Kim)

o Chateaubriand Fellowship for a Texas A&M PhD student for 6 months

o Visiting Professor in an INRAE International Associate Laboratory : LIA FOODPRINT, Suzhou University (China), Prof. X. Chen (2023, 2025)

o Industrial collaborations: International Paints (UK), Airbus (F), Lantor (NL), Saint Gobain (F), Rhodia (F), Safran Composites (F), Hempel (S), Arkema (US), Arcelor Mittal (F), Arc International (F), Acxys Technologies (F), Saverglass (F), PGI (F), Dylco (F), Baudelet Environnement (F), Mader (F), Roquette (F)

SCIENTIFIC MEDIATION & TRAINING

o 2022-now Femmes & Sciences **Mentoring Program Founder** @ Lille University (25h of training, 12 ECTS for female PhD students)

o Elected member of board of Femmes & Sciences (2021-2024) & active member of **Femmes Ingénieries** (video making, visits in highschools to promote sciences)

o 2023-now One of the two **ambassadors for L'Oréal Foundation "Girls in Science" Program** in Hauts-de-France (organizing 3 day STEM events for high school girls and mentoring)

o 2024: One week exchange journalist-researcher (@Sciences&Vie Junior)

o Public Engagement: Organizer of outreach activities, General public conferences, participation in national science events, and STEM promotion campaigns

o Continuing education: training in IA for research, management training, non-violent communication, teaching through games, Intensive session (4 days) @ Ecole de l'art Oratoire (public speaking, mediatraining)