

Dr. Adèle Gapin

05/03/1994

Assistant professor

Researcher ORCID: 0000-0002-1282-4600



Education

- 2017-2020 Université de Pau et des Pays de l'Adour and IPREM, Pau, France
PhD in Physico-Chemistry of Polymers. "Elaboration of functional copolymers absorbing in the near infrared region." *Funded by the Université de Pau et des Pays de l'Adour.*
Supervisors: **Dr. Christine Lartigau-Dagron** and **Dr. Antoine Bousquet**
- 2015-2017 Université de Pau et des Pays de l'Adour, Pau, France
Master in Chemistry and Physico-Chemistry of Materials (with honors, rank: 1/14)
- 2012-2015 Université de Pau et des Pays de l'Adour, Pau, France
Bachelor in Chemistry

Work experience

- 2023-Now **Assistant professor**
LCPO, Université de Bordeaux, France
Research in polymer chemistry at the LCPO (Laboratory of Chemistry of Organic Polymers).
Teaching of polymer science (chemistry, physico-chemistry, and physics) at the Université de Bordeaux.
- 2022-2023 **Postdoctoral researcher**
Moltech-Anjou Laboratory, S₂OMAF Group, Université d'Angers, France
"Visible-light driven synthesis of semiconducting polymers based on dynamic covalent chemistry". *ANR JCJC 2021 PhotoSynth.* **Dr. Antoine Goujon**
- 2021-2022 **Postdoctoral researcher**
University of Twente, Sustainable Polymer Chemistry group, Enschede, The Netherlands
"Biodegradable polymers *via* selective breaking points". *In collaboration with BASF, Germany.* **Pr. Dr. Frederik R. Wurm**
- 2020 **International doctoral mobility** (3 months)
Georgia Institute of Technology, Stingelin group, Atlanta, GA, USA
Research project in the framework of PhD project. Supervisor: **Pr. Natalie Stingelin**
- 2017 **Master 2 internship** (9 months)
"Physicochemical study of bacterial adhesion". *Funded by the Poctefa Health Liquid Silicon Rubber Program.* Supervisor: **Pr. Corinne Nardin**
- 2016 **Master 1 internship** (2 months)
Amcor Flexibles, Dax, France. "Optimization of an analytical method in order to calculate the rate of antioxidants in plastic films *via* UV-Vis spectroscopy".
- 2016 **Master 1 internship** (2 months)
IPREM, Pau, France. "Study of the self-assembly of amphiphilic block copolymers in aqueous solution". Supervisor: **Dr. Elise Deniau**
- 2015-2017 **Private teacher** in mathematics, physics, and chemistry for students from 6th grade (middle school) to 3rd year of Bachelor. **Tutor** of a BSc student with physical disabilities.

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Supervision and mentoring

- 2023 Supervision of a Master 1 intern (4 months). "Visible-light driven synthesis of semiconducting oligomers based on dynamic covalent chemistry".
- 2022 Supervision of a BSc student (2 months). "Development of a synthetic strategy to obtain regioisomerically pure dinitro-perylenediimide".
- 2019 Supervision of a Master 2 intern (5 months). "Conjugated polymers: Characterization by SEC coupled to an ultraviolet visible, a multi-angle light scattering and a viscometric detectors".
- 2018 Supervision of a BTS intern (1 month). "Synthesis of conjugated monomers and spectroscopic characterization".

Awards and achievements

- 2023 Best Flash Presentation, 16th International Conference on Organic Electronic. Madrid, Spain.
- 2023 Best Oral Presentation, SCF 2023, Nantes, France.
- 2019 Grant for International Doctoral Mobility at Georgia Institute of Technology, Atlanta, GA, USA. Awarded by E2S-UPPA
- 2019 Scholarship for International Doctoral Mobility at Georgia Institute of Technology, Atlanta, GA, USA. Awarded by Doctoral School of Pau
- 2019 Best Oral presentation, 17th International Conference on Chemistry and the Environment. Thessaloniki, Greece
- 2019 Travel grant for an International Conference, Doctoral School of Pau.
- 2016 Prize for the best prototype earned during "The 24h of Innovation" organized by Pôle Avenir.

Communications

- 2023 Oral "Light-frozen dynamic covalent synthesis of semi-conducting polymers and size-defined oligomers". 16th ICOE, Madrid, Spain
- 2023 Oral "Visible-light driven synthesis of semiconducting polymers and size-defined oligomers". SCF 2023, Nantes, France
- 2022 Poster "Visible-light driven synthesis of semiconducting polymers and size-defined oligomers". SPIC 2022, St Malo, France and Journées SCF Bretagne Pays de la Loire, Noirmoutier, France
- 2021 Poster "Upgrading by degrading: enabling and adjusting biodegradation *via* 'breaking points'". Brightlands Polymer Days, Veldhoven, The Netherlands
- 2019 Oral "End-capping of low band gap conjugated polymer for metal-oxide nanoparticles surface modification". 17th ICCE, Thessaloniki, Greece
- 2018 Poster "End-capping of low band gap conjugated polymer for metal-oxide nanoparticles surface modification. FOREverOPV, Pau, France

Additional scientific activities

- 2023 Presentation of research careers to a middle school class. Seiches s/ Loire, France
- 2022 Participation to "La nuit européenne des chercheur-e-s". Angers, France
- 2021-Now Reviewer for European Polymer Journal
- 2018-2019 Order management of chemical products for a research group. IPREM, France

Publications

- 1- *Low band-gap polymer brushes: influence of the end-group on the morphology of core-shell nanoparticles*, **A.Gapin**, H.Idriss, S.Blanc, L.Billon, M-H.Delville, A.Bousquet, C.Lartigau-Dagron, *Reactive and Functional Polymers*, **2020**, 155, 104700
- 2- *Complementary absorption versus morphology in all-conjugated block copolymers solar cells*, H.Idriss, **A.Gapin**, W.Khelifi, S.Blanc, I.Karamé, S.Chambon, L.Hirsch, A.Bousquet, C.Lartigau-Dagron, *Macromolecules*, **2020**, 53, 9043
- 3- *Trithiocarbonate-Mediated RAFT Polymerization Enables the Synthesis of Homotelechelic N-Vinylpyrrolidone Oligomers with Surfactant Properties*, **A.Gapin**, F.R.Wurm, *ACS Applied Polymer Materials*, **2022**, 4, 10, 6863-6870
- 4- *Synthesis of 1,6/7-(NO₂)₂-perylediimide and 1,6/7-(NH₂)₂-perylediimide: regiosomerically pure materials for organic electronics*, **A.Gapin**[†], A.H.G.David[†], M.Allain, D.Masson, O.Alévêque, T.Ave, L.Le Bras, P.Hudhomme, A.Goujon, *Chemistry – A European Journal*, **2023**, 29, 33, e202300652
- 5- *Ortho O-annulated azabenzannulated perylediimide and bisazacoronediimide*, A.H.G.David, D.Shymon, H.Melville, L.-A.Accou, **A.Gapin**, M.Allain, O.Alévêque, M.Force, A.Grosjean, P.Hudhomme, L.Le Bras, A.Goujon, *Journal of Materials Chemistry C*, **2023**

[†]: Equal Contribution