

Aditya Apte

Date of birth: 12/04/1999 | **Nationality:** Indian | **Gender:** Male | **Phone number:** (+33) 0780726969 (Mobile) | **Email address:** acapte@gmail.com | **Website:** <https://www.linkedin.com/in/aditya-apte-46003b131/> | **Address:** 44/B, Daya Niwas, S.K. Bole Road, Near Agar Bazar, Dadar West, 400028, Mumbai, India (Home)

WORK EXPERIENCE

10/2025 - CURRENT Neuville-sur-Oise, France
DOCTORAL RESEARCHER - WEARABLE ENERGY STORAGE
LPPI, CY Cergy Paris Université

- Develop polymer-based ionogel electrolytes and electrode materials for flexible and stretchable electrochemical energy-storage devices (supercapacitors and supercabineries).
- Investigate how polymer composition, crosslinking and ionic-liquid content influence ionic conductivity and mechanical properties; assemble and evaluate solid-state devices.
- Characterise materials using spectroscopy, microscopy, thermal and mechanical analysis; assess electrochemical performance using cyclic voltammetry, impedance spectroscopy and galvanostatic cycling.

09/2024 - 08/2025 Mumbai, India
R&D ENGINEER PRIVATE INDUSTRIAL COATINGS MANUFACTURER - 15 EMPLOYEES (€1.5M TURNOVER)

- Optimized formulations for a variety of industrial coating products such as Vacuum Metallisation Coatings and Industrial Paints for Plastic, Metal and Glass substrates
- Applied the coatings through spraying and dipping, and operated PVD(Physical Vapor Deposition) machine
- Tested adhesion, finish and durability of the coatings
- Evaluated Raw Material Costs for various products for cost-reduction of the formulations

Key Results: Launched and scaled up novel products such as 2 component (2K) Polyurethane -based laser etching coating system , 2K Polyurethane Glass Paint

02/2024 – 07/2024 Bordeaux, France
M2 THESIS INTERN - POLYMER ELECTRONIC INKS FOR NON-AQUEOUS MEDIA: SYNTHESIS, FORMULATION AND PROCESSING
LABORATOIRE DE CHIMIE DES POLYMÈRES ORGANIQUES

- Synthesized anionic monomers (precursors for polymerization) using organic synthesis and purification techniques and performed their corresponding characterization with 1-H NMR Spectroscopy
- Synthesized polyanions used as stabilizers in PEDOT inks by RAFT Polymerization using Schlenk lines, and characterized them with NMR and GPC-SEC
- Synthesized and Formulated PEDOT inks and characterized the inks with UV-Vis Spectroscopy
- Used clean-room facilities for Doctor Blade, Spin Coating, Sheet Resistance measurement (4-point probe), profilometer for calculating conductivity
- **Contact:** Dr. Éric Cloutet (CNRS Senior Researcher, LCPO) - eric.cloutet@u-bordeaux.fr (+33 (0)5 4000 3091)

Key Results: Ruled out the usage of acrylate-based homo and copolymers as stabilizers for PEDOT inks
Reason for Depart: End of Internship

01/2023 – 07/2023 San-Sebastian, Spain
M1 THESIS INTERN- SYNTHESIS OF MULTIMODAL DISPERSIONS POLYMAT

- Conducted Batch and Semi-Batch Seeded Emulsion Polymerization of BA-MMA copolymers in batches of upto 2L at numerous target particle sizes and narrow particle size distributions, using Camile TG Software for Process Automation
- Performed DLS (Differential Light Scattering) measurements for measuring Particle Size Distribution
- Carried out Rheological Measurements with concentric cylinder geometry, using TRIOS software
- Validated the % Monomer Conversion of each of the Emulsion samples
- **Contact:** Prof. Nicholas Ballard (Research Associate Professor, POLYMAT) - nicholas.ballard@polymat.eu (+34 943 01 53 30)

Key Results: Confirmed the ideal particle-size volume fractions for bimodal dispersions
Reason for Depart: End of Internship

10/2020 – 12/2021 Navi Mumbai, India
RESEARCH EXECUTIVE II - FLOOR COATINGS ASIAN PAINTS R&T CENTRE (200+ EMPLOYEES, €3.38B TURNOVER)

- Optimised the formulation of Epoxy and Polyurethane-based floor coating products using alternative resin and hardener systems while simultaneously maintaining product performance
- Tested the products using ASTM test methods to calculate properties such as NVM(Non-volatile matter), Viscosity, WPL(Weight per liter), Compressive strength, Tensile strength, and Flexural Strength, Abrasion resistance, etc.

Key Results: Achieved Cost reduction of the best-selling product ranges by 30%
Reason for Depart: To pursue a Master's in Polymer Science, fueled by a strong desire for gaining a comprehensive understanding of the field

01/2020 – 07/2020 Mumbai, India

B.TECH PROJECT: DEVELOPMENT OF BIO-BASED EPOXY ACRYLATE OLIGOMERS FOR UV CURABLE COATING APPLICATIONS
INSTITUTE OF CHEMICAL TECHNOLOGY, MUMBAI

- Attempted organic synthesis of a partially bio-based epoxy resin by incorporating 'Eugenol', an extract from the clove tree. Performed FTIR Characterization
- Completed the project virtually due to the COVID-19 Pandemic

Key Results: Conducted a comprehensive literature survey for testing of coating products for flame-retardancy

Reason for Depart: End of Internship

05/2019 – 08/2019 Navi Mumbai, India

TRAINEE ASIAN PAINTS R&T CENTRE (200+ EMPLOYEES, €3.38B TURNOVER)

Key Results: Explored and Confirmed the possibility of using Machine Learning (ML) as a tool for paint color matching

Reason for Depart: End of Internship

EDUCATION AND TRAINING

09/2023 – 07/2024 Bordeaux, France

M2- DOUBLE MASTER IN POLYMER SCIENCE Université de Bordeaux

Website <https://www.doublemasterinpolymerscience.com/> | **Final grade** 13.11/20.00 (M1+M2) | **Type of credits** ECTS |

Number of credits 63.5 | **Thesis** Polymer Electronic Inks for Non-Aqueous Media: Synthesis, Formulation and Processing (LCPO, France)

09/2022 – 08/2023 San Sebastian, Spain

M1-DOUBLE MASTER IN POLYMER SCIENCE University of the Basque Country (UPV)

Website <https://www.doublemasterinpolymerscience.com/> | **Final grade** 13.72/20.00(French system) | **Type of credits** ECTS |

Number of credits 60 | **Thesis** Synthesis of Multimodal Dispersions (POLYMAT, Spain)

07/2016 – 07/2020 Mumbai, India

BACHELOR OF TECHNOLOGY (B.TECH.) Institute of Chemical Technology, Mumbai

Address Nathalal Parekh Marg, near Khalsa College, Matunga, 400019, Mumbai, India | **Website** <https://www.ictmumbai.edu.in/> |

Field of study Surface Coating Technology | **Final grade** CGPA 7.97/10.00 | **Number of credits** 197 |

Thesis Development of Bio-Based epoxy acrylate oligomers for UV Curable Coating applications

LANGUAGE SKILLS

Mother tongue(s): **MARATHI**

	Listening	Reading	Spoken production	Spoken interaction	Writing
ENGLISH	C2	C2	C1	C1	C1
FRENCH	B2	B2	B2	B2	B2
HINDI	C2	C1	C2	C2	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Adobe Premiere Pro | Optiva | PREDICI(Polymerization Simulation Software) | ChemDraw | Python(Programming Language) | AI Prompt Engineering | TopSpin(NMR Software) | Astra/Chromleon (GPC-SEC Software) | TRIOS | ZetaSizer | Cary WinUV - Scan (UV-Vis spectroscopy) | Microsoft Excel (VLOOKUP) | Origin

HOBBIES AND INTERESTS

DELFI B2 French Certification (01/2025)

Awarded the DELFI B2 Certificate by Alliance Française de Bombay

Trinity College London Grade 8 Piano Certificate (04/2022)

Awarded the Level 3 Certificate in Graded Examination in Music Performance with Merit.

Tata Mumbai Marathon 2020 - Amateurs Finisher

Received the Finisher Medal of the full marathon (42.195 km), 2020.

Programming for Everybody (09/2019)

Getting Started with Python - E-learning course completed at the University of Michigan.