

10 Bis Rue de la Marne  
33130 Bègles  
France  
+33 (0)6 43 43 95 02  
s.colanges@laposte.net  
Driving Licence

**Simon COLANGES**  
Material Chemist Engineer



### Scientific Skills

- ✓ **Materials science:** Polymers and Surfaces sciences, Catalytic, Magnetic, Semi-conductor, Energy Material, Mechanics of Materials
- ✓ **Chemical Sciences:** Organic and Analytical sciences
- ✓ **Structural analysis** (TEM, SEM, XRD, Optical microscope) & **Physico-Chemical analysis** (HPLC, GC, GC-MS, ICP-AES, NMR, Spectrophotometer, Rheometer), **Image treatment** (Matlab)

### Languages

**French:** Native language  
**English:** Fluent  
**German:** Intermediate

### Soft Skills

- ✓ Teamwork, team leadership, autonomy, strong motivation, organization

### IT Skills

**Matlab:** Advanced  
**Python:** Basics  
**Arduino:** Intermediate  
**FreeCAD:** Advanced  
**Pack Office:** Advanced

Other: **Mendeley, Topspin, Chemdraw**

### Additional Skills and Interest

- ✓ Singer (team work, rigor), Improvisation actor (creativity, teamwork), Table tennis and Judo (competitor, dedicated to effort and challenge)
- ✓ Former President of the engineering school's board of arts: lead an 18 people team with a budget of 1000\$. Performed first meeting.

### Experience

- 2019-Present **Research Engineer, LOF (Pessac), France**  
***Conception of Direct Ink Writing Platform with Gradient Abilities for Complex Fluids***
- ✓ 3D printing (Extrusion, Stereolithography), Computer-aided design and Interfaced devices
  - ✓ Project management and communication (several oral presentations)
  - ✓ Co-supervised 2 master students
- Highlights **Creation of DIW platform with gradients & Focus on the role of yield stress in complex fluids.**  
Ongoing publication: *"Direct Ink Writing of a Yield-Stress Fluid: Towards 2.5D Printing"*
- 2018 **Engineer internship, CEA, Grenoble, France**  
***Catalytic converter development with precious metals for automobile industry***
- ✓ Used and optimized the MOCVD process and device to make particle deposit
- 2017 **Assistant engineer internship BOSCH, Stuttgart, Germany**  
***Development of new hard magnetic phase with transition metal and rare-earth to create cost-effective, permanent magnets using less rare-earth***
- ✓ Experiment in Glove-box and Arc melting to create new alloys, and Permagraph, XRD and SEM to make structural analysis
- 2016 **Assistant engineer internship, IRES (Health and environment), Illkirch, France**  
***Development of water-analysis method with MS-CPG to quantify more pesticides***
- 2013-2014 **Lab technician in various companies, France**
- ✓ Worked in Barry Callebaut (Agri), Toyo Inc. (Ink), Veolia (Water treatment), SGS Multilab (Environment, Agri), Ashland (CMC), SA COLOR (Dyes)

### Education

- 2015 – 2018 **Diplôme d'ingénieur (Master's Degree in Chemistry)**  
ECPM (European School of Chemistry, Polymers and Materials Science)  
**Master's degree Engineering in Materials and Nanosciences**  
University of Strasbourg, France
- 2010 – 2013 **Bachelor's Degree in Organic Chemistry**  
University of Rouen, France