Dr. Paul Iacomi

Ph.D, M.Eng

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CORE QUALIFICATIONS

Chemical engineer turned researcher with a highly practical outlook and industrial experience in Supply Chain and R&D. Enjoy solving problems, automation and obtaining insights from large datasets. I have a comprehensive background in the adsorption of gasses and vapours, with a focus on gas storage and separation, as well as intimate knowledge of porous coordination polymers, their characterisation, synthesis and avenues of application. Some experience in statistical analysis, rheology and colorimetry. Familiar with many characterisation techniques, such as thermal analysis (microcalorimetry, TGA, DSC), spectroscopy (XRD, IR, UV) and other qualitative and quantitative methods (NMR, GC, MS). Skilled in programming with Python, C++ and several other languages, primarily for high throughput data processing and automation.

EDUCATION

PhD in Condensed Materials and Nanoscience 2015-2018

MADIREL Laboratory, CNRS / Aix-Marseille Université, France

- Awarded a Marie Curie ITN fellowship to study the influence of crystal defects in metal organic frameworks (MOF) as part of the DEFNET European project. Research carried out in the Energy and Adsorption group in MADIREL, under Dr. Philip Llewellyn.
- Research topic focused on characterisation of different MOF, to understand the complex interactions at the fluid-solid interface during adsorption, with the aim of evaluating them for applications such as catalysis, or gas storage and separation.
- Became an expert in adsorption techniques such as manometry, gravimetry, mixture adsorption, high pressure adsorption, combined microcalorimetry, mixture adsorption, adsorption columns and beds.
- Developed a complementary background in MOF synthesis, automation, thermal characterisation, molecular modelling and simulation, spectroscopic characterisation of materials and interfaces.
- Thesis, list of publications and scientific presentations available upon request.

MEng (Hons) Chemical Engineering and Industrial Experience 2011-2015

University of Manchester, UK

- Four year combined bachelors and masters degree, with a year of experience in industry. Graduated with a 1st class degree.
- Final year group project: "Designing a plant for sustainable production of dimethyl ether from black liquor". Individually modelled a high pressure gasifier in MATLAB as part of this module. Final grade: 83/100.
- Received the Manchester Leadership Gold Award 2013 for volunteering activities. Part of the Peer Assisted Study Scheme initiative, acting as a learning facilitator for a group of 10 students weekly for one year.

Romanian Baccalaureate 2011
Profile: Mathematics and Computer Science
Overall grade: 87/100.

WORK EXPERIENCE

Internship, Commisionning Jun 2014 — Sep 2014
AkzoNobel ICI Paints, Supply Chain

- Worked with a team of 3 operators to write process flow diagrams and work sheets for commissioning paint slurry production. Gained valuable process insight.
- Wrote Excel VB macros for the document control team. They allowed the creation of an equipment tracker and transmittal log, saving over 2 weeks of labour.

Internship, Engineering Innovation Jun 2013 — Jun 2014
AkzoNobel ICI Paints, Supply Chain

- Involved in redesigning the quality control method for decorative paints for use in a lean, just-in-time manufacturing environment.
- Implemented a cleaning-in-place regime that succeeded in removing 99.993% of emulsion paint from a small-bore complex pipe system. The equipment helped reduce quality control time from 2–4 hours to 15 minutes.
- Gained a strong background in automation, statistical analysis, colour science and rheology. Completed a Lean 6 Sigma Green Belt style project.

SKILLS

Languages	Romanian (mother tongue) English (bilingual) French (fluent)
Computer skills	**Advanced:** Python, C++, LaTeX, Visual Basic, Microsoft Office **Fluent:** MATLAB, Webdesign (HTML, CSS, JavaScript) **Competent:** C#, bash, HYSYS, Adobe Photoshop,
Mobility	European Driving Licence

INTERESTS

I enjoy challenges and creating new things. Avid runner, with more than 2000 km on foot in the last 5 years. I travel a lot in my spare time, having visited 27 countries. I often set weekend projects such as creating a website, hosting it on a Raspberry Pi, automating my home, building a bike shed or calculating the best time to add milk to coffee.

REFERENCES

Available upon request