

# Evgeny Smirnov, PhD

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## Summary

✓ Experienced **Materials Scientist & Electrochemist** (h-index = 12) with diverse, multidisciplinary & international practice in material science, electrochemistry, physical & analytical chemistry, skilled in materials synthesis, analytical & characterization methods.

✓ As a successful collaborator & effective communicator with project management skills led & participated in **>10 research projects**, published high-quality results in **1 book**, **>20 peer-reviewed articles** & presented in **>15 talks** at international conferences & popular science events. As a creative person with a combination of analytical skills & a result-driven mindset, used to work in cross-functional & multicultural environments in **3 countries**.

✓ Key skills include:

**Material Science | Interfaces | Experimental work | Communication | Result Driven | Fluent English**

## Work Experience

### ITMO Fellow (Group Leader, Senior Researcher)

09/2022 – present

ITMO University (Infochemistry Research Center) – Russia

- Researching on chemotronics & interfacial/colloidal science.
- Preparing & giving a course of Physical Chemistry for 30 B.Sc. students.
- Supervising 4 B.Sc. students works.

### Assistant Professor

09/2021 – 05/2022

Shenzhen Moscow-Beijing University – China

- Supervised & successfully defended 7 B.Sc. diploma works on Raman spectroscopy and MXene memristors.
- Prepared & carried out 2 lectures & 2 practical works on modern analytical techniques for master students, co-authored course of lectures & organized a practical work on AFM for master & PhD students.

### Senior Researcher

04/2020 – 08/2022

Lomonosov Moscow State University – Russia

- Carried out research on enhanced Raman and fluorescent spectroscopy, proposed & implemented of reagent-free peroxidase sensing platform. The latter resulted in 1 paper & 1 patent applications.
- Participated in 2 projects of RSCF, 1 - RFBR, & 2 - with industrial partners (Rusal & EFKO). Proposed novel method to extract sunflower protein with purification from phenolic compounds.
- Supervised 1 PhD student, 3 M.Sc. diploma works, >10 term papers that were successfully defended.
- Introducing Scrum & Agile practices to the laboratory management based on ClickUp.

### Materials Scientist

12/2019 – 04/2020

MightyBuildings.Inc. – Russia

- Through working on new 3D UV-cured composites, proposed a strategy to screen mineral fillers for novel composite materials (from requirements to lab tests & formulations) that decreased screening time 5 times.

- Set up research laboratory facilities (including designing, planning & ordering necessary equipment & materials) with organized safe & productive workflow.
- Participated in NPI (new product introduction to the market) – grasped vital features of the material & proposed 2 novel applications.

**Material Researcher**

01/2019 – 06/2019

H.Glass – Switzerland

- Proposed a new technical route to inkjet print materials for solar cells, which was 2 times cheaper & 10 times faster than conventional technologies.
- Established a fruitful collaboration with an external research laboratory on inkjet printing & sintering of materials that resulted in reduced prototyping cost by 10 times.

**Research Scientist (PhD & PostDoc)**

11/2012 – 12/2018

École Polytechnique Fédérale de Lausanne (EPFL) – Switzerland

- Carried out >10 research projects in cooperation with >10 internals & 5 externals collaborators, as a result, published a book as the awardee of Springer Nature Theses Prize, >20 articles in top journals & presented at >15 major international conferences.
- Operated complex modern equipment such as electron microscopy, optical microscopy, atomic force microscopy, spectroscopic, X-Ray, laser & electrochemical equipment, built lab-setups & installed equipment, thus acquired strong technical & problem-solving expertise.
- Coach & teacher experience: supported 3 scientists in the laboratory (impedance methods, materials synthesis & characterization), conducted training on analytical FTIR & FL for 200+ students.

**Technical Sales Specialist**

03/2012 – 10/2012

ThermoTechno LLC – Russia

- Provided scientific & technical expertise to clients from academia & industry for commercial offers on scientific equipment (mainly Thermo Fisher Scientific X-Ray analysis & chromatography) & negotiated contract details. Prepared tender documentation & won 15+ tenders (overall 4M \$).
- Proposed & executed sales of scanning electron microscopy (EM) equipment in a partnership with an external company, which resulted in selling 2 EM worth of 1M \$.

**Education**

École Polytechnique Fédérale de Lausanne (EPFL) – Switzerland

11/2012 – 01/2017

Ph.D. in Chemistry and Chemical Engineering.

Lomonosov Moscow State University (MSU) – Russia

09/2009 – 06/2011

Master of Science in Chemistry with a specialization in Material Science. Cum laude.

Lomonosov Moscow State University (MSU) – Russia

09/2005 – 06/2009

Bachelor of Science in Material Science. Cum Laud.

**Languages**

- Russian – native, English – C2, French – B1/B2, German –A1.

**Hobbies & Extracurricular activities**

- Event-organizer & sport-enthusiast: networking events, skiing, hiking, rowing & traveling.
- Scientific artist: presented my colorized microscopy images at EPFL staff's art exhibition CREAPoly in 2015, Voir&Savoir in 2018, Shoot for Science for Wikipedia in 2019 ([link](#)).
- Freelance writer: 70+ popular science articles about microelectronics, Light- Emitting Diodes (LED), solar energy, and wearable electronics (the list of articles is available in Russian, [link](#)).