

IEVGEN DUBORIZ

Chemical Engineer

RESEARCH INTERESTS

Physical chemistry for catalysis and sustainability. Research and development for solar cells, electrochemical organic synthesis, electrochromic devices, anti-corrosion coatings, and green chemical design.

PROFESSIONAL EXPERIENCE

Chemical Engineer (remote)

Cx Bio

May 2022 – Dec 2025

Luxembourg, LU

- Collecting and preprocessing the technical data from different sources (web, articles, thesis, etc) and providing the summaries to the team.
- Consulting the team on question related to chemistry, chemical technology, electrochemistry, and general technical topics.

Chemist/Chemical Engineer consultant (remote)

Freelance consultant

Mar 2019 – May 2022

Slavutich, UA

- Technical support in projects related to chemistry and chemical engineering (processes optimization, concept proof, a product sample and prototypes development).
- Literature/patent surveys, report preparation.

R&D Engineer (on site)

OPTIFINER UG (University Bremen Spin-Off)

Aug 2018 - Feb 2019

Bremen, DE

- Development, assembling and final test of the electrical control system for Atomic Layer Deposition (ALD) vacuum coating tool.
- Simulation and 3D visualization of gas flow dynamic within the variety of vacuum chambers for the ALD device.

Analytical Chemist (on site)

PV Ltd

Feb 2015 - Oct 2016

Svaliava, UA

- ICP-OES spectroscopy analytical lab planning and launching.
- Technical maintenance of the Perkin-Elmer Optima 4300 DV Spectrometer.
- Laboratory management and quality control of silicon-based materials for solar cell production.

R&D Engineer (on site)

IBOPC Research Institute, Department of Electrochemistry

Jul 2004 - Jan 2015

Kyiv, UA

- Sovereign projects coordination and laboratory management.
- Designed and assembled an optical sensor system based on doped polyaniline for air quality measurements.
- Successfully developed semitransparent electrochromic electrode for RGB devices.
- Chemical/electrochemical synthesis and instrumental analysis of modified polyaniline, polythiophene, and polyethylene terephthalate materials. - Development of composite inorganic/organic electrodes for solar cell applications based on thin chalcogenide (CdS, CdSe) films.

EDUCATION

Specialist, Technical Electrochemistry 2005 – 2007
National Technical University of Ukraine “KPI” Kyiv, UA

- Physical Chemistry
- Instrumental Analytics
- Engineering
- Coating Design

B.Eng., Chemical Engineering 2001 – 2005
National Technical University of Ukraine “KPI” Kyiv, UA

- Analytical chemistry
- Inorganic chemistry
- Chemical Engineering
- Surface Finishing

QUALIFICATIONS

Materials Science: Surface Chemistry and Physics, Protective and Functional Coatings, Material Modification and Characterization.

Physical Chemistry: Instrumental Analysis, Electrochemistry.

Analytical Methods: ICP-OES, UV-Vis, FTIR, XRD, SEM, Cyclic Voltammetry, Potentiometric titration.

Engineering: Equipment Design, Prototypes Development, Fine Mechanics, Electrical Engineering.

Electrochemistry: Electrochemical Kinetics, Materials for Electrochemical Energy Storage, Electrochemical organic synthesis, Electroplating, Corrosion Protection.

Computational Modeling: CAD-Software, Physical Processes Simulation, Integrated Circuits and Printed Circuit Boards Design and Simulation Software (EDA).

SOFTWARE

Windows/Unix OS, Adobe products, Python, Origin Pro, WinLab32 for ICP, Carry Win-UV.

LANGUAGES:

English, Russian, Ukrainian

SELECTED PUBLICATIONS

- A. Pud, **le. Duboriz**, Yu. Piryatinski, O. Dimitriev, "Anion-chromic" interactions of emeraldine base with hydroxide and halide anions in the solid polymer matrix, *Synthetic Metals*, Vol. 209, 2015, pp 232-239.
- **le. Duboriz**, A. Pud, Polyaniline/poly(ethylene terephthalate) film as a new optical sensing material, *Sensors and Actuators B: Chemical*, Vol. 190, 2014, pp 398-407.
- D. Sydorov, **le. Duboriz**, A. Pud, Poly(3-methylthiophene)-polyaniline couple spectroelectrochemistry revisited for the complementary red-green-blue electrochromic device, *Electrochimica Acta*, Vol. 106, 2013, pp. 114-120.

SIGNIFICANT CONFERENCES ATTENDED

- The 63rd Annual Meeting of the International Society of Electrochemistry, Electroactive polymers division, Prague 2012.

May 5, 2026

Slavutich