

CV Pablo J Lebed

Contact information

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Professional summary

Highly skilled Analytical Chemist (PhD) specializing in advanced spectroscopy and chromatography techniques, including ICP-MS/MS, ICP-OES, HPLC-ICP-MS, and GC-FID. Extensive experience (15+ years) in method development, validation, and troubleshooting across research and industrial QC laboratories. Successfully applied expertise to battery materials, nanomedicine, environmental analysis, and radiochemistry projects. Adept at leading technical initiatives and ensuring quality standards.

Work experience

Environmental Chemist

Solarus Renewables AB, Sweden - (Jul 2025 - Sep 2025) - Internship

- Analyzed industrial wastewater treatment methods and link them to costs such as CAPEX, OPEX and LCA.
- Compiled technical information in reporting form for decision makers in the paper, food and medicine industry.

Senior Analytical Chemist

Northvolt AB, Västerås, Sweden – (Dec 2021 - Jun 2025)

- New Methods Development and Validation:** Spearheaded the development and validation of new analytical methods.
- Development Area Leadership:** Served as the Development Area Lead for ICP-OES, ICP-MS, XRF, and TGA within the CAM and Revolt QC & Characterization Teams.
- R&D Participation:** Actively participated in internal R&D projects and investigations, contributing analytical expertise.
- Quality Management System Implementation:** Developed and implemented Revolt's QC Lab Quality Management System, enhancing lab efficiency and reliability.
- Quality Standards Awareness:** Demonstrated awareness of key quality standards, including ISO 9001:2015, IATF 16949:2016, ISO 17025:2017, and ISO 10725:2000.

- **Routine Implementation:** Implemented Incoming Quality Control, Deviation Management, Knowledge Management, and Continuous Improvement routines to optimize lab operations.

Senior Engineer

Institute for Energy Technology, Lillestrøm, Norway (Dec 2020 - Oct 2021)

- **Trace Element Analysis:** Conducted trace element analysis for industrial R&D samples using ICP-MS with both the Thermo Element XR HR ICP-MS and the Agilent 5800 ICP-OES instruments.
- **Strontium Isotopic Ratio Method:** Developed an extraction chromatography method specifically for the analysis of Strontium (Sr) isotopic ratios.
- **Sample Preparation for Isotopic Analysis:** Prepared fish tissue samples for isotopic ratio analysis of Carbon (C) and Nitrogen (N).

Research Scientist

SINTEF, Trondheim, Norway – (Apr 2019 - Mar 2020)

- **Organization:** Worked within SINTEF Industri, Department of Biotechnology and Nanomedicine, Mass Spectrometry Division.
- **Method Development (Nanomedicine):** Developed methods for detecting nanomedicine carriers using a Postnova FFF system hyphenated with an ICP-MS-MS Agilent 8800.
- **Method Development (Fatty Acids):** Set up sample preparation and analysis methods for fatty acids in fish oil using the GC-FID Agilent 8890 system.
- **ICP-MS-MS Projects:** Developed projects utilizing the Agilent 8800 ICP-MS-MS.
- **Laser Ablation System Development:** Developed the Teledyne LSX-213 G2+ Laser Ablation system hyphenated with ICP-MS-MS strategy and acquired the first customers.

Senior Engineer

Geological Survey of Norway, Trondheim, Norway (Sep 2018 - Oct 2018)

- **K-Ar Geochronology:** Conducted K-Ar Geochronology of Illites.
- **K Measurement Strategy:** Developed a K measurement strategy employing the ICP-MS Thermo Element XR HR.

Research Scientist

Norwegian University of Life Science, Ås, Norway (Apr 2017 - Aug 2018)

- **Selenium in Pig Production:** Investigated selenium requirements in Norwegian pig production. Developed a comprehensive analytical strategy for speciation analysis of selenomethionine metabolites and selenium-containing proteins, from sample preparation to HPLC-ICP-MS analysis.
- **Chromium Speciation Analysis:** Conducted chromium speciation analysis using IC-ICP-MS. Developed a chromatographic method for separating Cr(VI) from Cr(III) in liquid biofertilizers.

- **Sr-90 Analysis:** Analyzed Sr-90 in fish samples from Chernobyl. Developed the sample concentration and clean-up procedure using radionuclide-specific solid-phase extraction resins.
- **Teaching:** Invited lecturer for KJM340 Instrumental Inorganic Analysis at NMBU. Discussed fundamental aspects of HPLC combined with ICP-MS and conducted a laboratory demonstration using selenoprotein chromatographic separation.

Post-Doctoral Researcher

Norwegian University of Life Science, Ås, Norway (Apr 2015 - Mar 2017)

- **EU NANOREM (Project No. 309517) – Nanotechnology Solutions for In-Situ Soil and Groundwater Remediation.**
 - **Nanomaterial Fingerprinting:** Developed a strategy to fingerprint nanomaterials using the lanthanides' signature through ICP-MS analysis.
 - **Iron Nanoparticle Assessment:** Employed this strategy to assess the mobility and fate of iron nanoparticles in European field test sites.
 - **Biofilm Effect Study:** Studied the effect of soil biofilms on the mobility of Fe nanoparticles using radiolabeled Fe nanoparticles.
- **EU NANoREG (Project No. 310584) – Regulatory Testing of Nanomaterials.**
 - **Standard Operating Procedures (SOPs):** Followed pre-developed Standard Operating Procedures (SOPs) for the TEM analysis of standard nanomaterials of varying complexities.
 - **TEM Skills Development:** Developed TEM measurement and analysis skills using open-source software such as ImageJ.
 - **Contribution to PhD Thesis:** Contributed to the PhD thesis work of Merethe Kleiven on the effect of Ag nanoparticles on *Salmo trutta*.
 - **Nanoparticle Characterization:** Characterized Ag nanoparticles using spICP-MS.

Research Scientist

Laval University, Québec, Canada (Mar 2012 - Mar 2015)

- **Analytical Chemistry:** Developed sample preparation strategies using commercial solid-phase extraction (SPE) resins dedicated to radiochemistry and detection using the ICP-MS-MS Agilent 8800 for neptunium and protactinium.
- **Extraction Development:** Worked on the extraction of actinides and rare-earth elements with innovative organic ligands.
- **Radionuclide Removal:** Focused on the removal of radionuclides with core-shell colloidal particles and evaluation of their stability in solution.
- **Titanium Analysis:** Conducted titanium analysis in blood using ICP-MS and the CRC technology, mainly with NH₃.

- **Geo-origin Assignment:** Successfully assigned geo-origin of old Champagne samples from the Empress of Ireland ship using semi-quantitative ICP-MS analysis and PCA.
- **Collaboration and Publication:** Participated in a national collaboration, established international partnerships, collaborated in grant proposal writing, and independently wrote and published peer-reviewed articles and conference presentations. Trained and mentored undergraduate and graduate students.

Post-Doctoral Researcher

Laval University, Québec, Canada (Sep 2010 - Feb 2012)

- **Industry-University Collaboration:** Participated in an Industry-University collaboration (Hydro-Québec - Laval University) under the supervision of Prof. Dr. Dominic Larivière.
- **Adsorbent Synthesis:** Successfully synthesized, characterized, and demonstrated the analytical performance of a new hybrid organic-inorganic adsorbent for extracting actinides based on highly ordered nanoporous silica.
- **Materials Science Skills:** Acquired strong materials science characterization techniques and skills.
- **Publications and Support:** Published two high-impact scientific articles, participated in several conferences and symposia, and provided support and guidance to Ph.D. and MSc students.

Skills

Lab Technology

- **Spectroscopy/Spectrometry:** ICP-MS-MS, ICP-MS, ICP-OES, sp-ICP-MS, LC-ICP-MS, FFF-ICP-MS.
- **Chromatography:** GC-FID, HPLC-UV/VIS.
- **Material Science:** TEM, solid-state FTIR, solid-state NMR, nitrogen physisorption analysis, thermogravimetric analysis (TG/DTA), XRD and XPS interpretation, DLS/PSA.
- **Radiation Counters:** Liquid Scintillation, Alpha Spectrometry.

IT Tools

- HTML | CSS | JavaScript | Linux | Git | GitHub | VS Code | MS Office 365 | Notion | Jira | Confluence

Certifications and Trainings

- **Introduction to Good Manufacturing Practice (GMP):** Research Quality Association (RQA), October 2018.
- **Introduction to Good Laboratory Practice (GLP):** Research Quality Association (RQA), February 2019.

- **SPC and Capability:** Northvolt AB, Instructor: David Leiva, Lean Six Sigma Master Black Belt, 2023.

Memberships

- **American Society for Quality - ASQ:** (2023-2024)
- **American Society for Testing and Materials - ASTM International:** (2023-present)

Languages

- Spanish - Mother tongue | English - Professional proficiency | Norsk - Level A2

Education

- **PhD Analytical Chemistry** - 2010 Universidad Nacional de La Plata, La Plata, Argentina
- **BSc Biochemistry** - 2003 Universidad Nacional del Sur, Bahía Blanca, Argentina