



# COLLI, ALEJANDRO NICOLÁS

Programa de Electroquímica Aplicada e Ingeniería  
Electroquímica (PRELINE) – Facultad de Ingeniería  
Química (FIQ) – Universidad Nacional del Litoral (UNL)

Github  
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 anculli@gmail.com

## PERSONAL INFORMATION AND CURRENT POSITIONS

### Nationality: Argentine

D.N.I. 30786090 – Marital Status: Single

Date of Birth: 02/02/1984  
Santa Fe, Argentina

### Researcher (Independiente)

Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET)

2015 (2024) – Present  
Santa Fe, Argentina

### Adjunct Professor

Facultad de Ingeniería Química - Universidad Nacional del Litoral

Mar. 2015 – Present  
Santa Fe, Argentina

## RESEARCH INTERESTS

My research uses numerical simulations to analyze and design electrochemical reactors, optimizing performance and understanding. The goal is to validate hypotheses balancing simplicity, accuracy, and computational efficiency. By developing reliable predictive tools, I aim to uncover insights into underlying phenomena and advance electrochemical engineering. This approach is valuable when analytical theory is unfeasible, allowing deeper exploration of complex systems.

## EDUCATION

### Doctor in Chemical Engineering | *Electrochemical Engineering*

Facultad de Ingeniería Química - Universidad Nacional del Litoral

Mar. 2009 – Dec. 2013  
Santa Fe, Argentina

### Chemical Engineer

Facultad de Ingeniería Química - Universidad Nacional del Litoral

Mar. 2003 – Feb. 2009  
Santa Fe, Argentina

### Chemical Technician

Escuela Industrial Superior - Universidad Nacional del Litoral

Mar. 1997 – Dec. 2002  
Santa Fe, Argentina

## STAYS ABROAD

### Department of Materials Engineering (KU Leuven )

CFD simulations of electrochemical processes

Feb. 2023 – Aug. 2025  
Leuven, Belgium

### Laboratory of Physical and Analytical Electrochemistry (EPFL )

Redox flow batteries & Alkaline water electrolysis

Sep. 2015 – Sep. 2017  
Sion, Switzerland

### Anhalt University of Applied Sciences

Advanced Oxidation Methods for Water Treatment

Jun. 2011 – Aug. 2011  
Köthen, Germany

## COMPLEMENTARY TRAINING

### Cyclic Voltammetry International School

Laboratoire d'Électrochimie Moléculaire – Université Paris Diderot – 40 hs.

May. 2016  
Paris, France

### Iberoamerican School of Electrochemistry

Instituto de Química – Universidade de São Paulo – 45 hs.

Dec. 2011  
São Paulo, Brazil

### Numerical methods applied to transport phenomena

Facultad de Ingeniería Química – Universidad Nacional del Litoral – 60 hs.

Aug. 2010  
Santa Fe, Argentina

### Fuell cells

Facultad de Ingeniería Química – Universidad Nacional del Litoral – 60 hs.

Dec. 2009  
Santa Fe, Argentina

### Electrochemical Engineering

Facultad de Ingeniería Química – Universidad Nacional del Litoral – 90 hs.

Aug. 2007  
Santa Fe, Argentina

### Electrochemical processes Technology

Facultad de Ingeniería Química – Universidad Nacional del Litoral – 90 hs.

Dec. 2006  
Santa Fe, Argentina

### General Electrochemistry

Facultad de Ingeniería Química – Universidad Nacional del Litoral – 90 hs.

Jul. 2006  
Santa Fe, Argentina

## PUBLICATIONS

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1. Modeling Complex Electrodeposition Morphologies with a Fully Coupled VoF Approach. **A.N. Colli,\*** and J. Fransaer. *Electrochim. Acta* 549 (2026) 148033
2. Predictive multiphysics modelling of pulse and pulse-reverse electrodeposition for optimized coating uniformity. **A.N. Colli,\*** and J. Fransaer. *J. Electroanal. Chem.* 1001 (2026) 119706
3. Rational design of turbulence promoters in electrochemical reactors using numerical simulations of periodic sections. **A.N. Colli,\*** and J.M. Bisang. *Int. Commun. Heat Mass Transf.* 166 (2025) 109120
4. A synchronous-twisting method to realize radial scalability in fibrous energy storage devices. Z. Zhou,\* S. Xie, H. Cai, **A.N. Colli**, W. Monnens, W. Zhang, N. Han, W. Guo, Z. Xue, X. Zhang, J. Fransaer. *Science Advances* 10 (2024) eado7826
5. Modeling electrode shape changes in electrodeposition and electrochemical dissolution. **A.N. Colli,\*** X. Dominguez-Benetton and J. Fransaer. *J. Electrochem. Soc.* 171 (2024) 073501
6. A two-phase model to predict the enhanced mass transfer by bubble-induced convection in electrochemical systems. **A.N. Colli,\*** and J.M. Bisang. *Electrochim. Acta* 498 (2024) 144606
7. Metal-based cathodes for hydrogen production by alkaline water electrolysis: Review of materials, degradation mechanism, and durability tests. N. Esfandiari, M. Aliofkhazraei,\* **A.N. Colli**, F.C. Walsh, S. Cherevko, L.A. Kibler, M.M. Elnagar, P.D. Lund, D. Zhang, S. Omanovic, J. Lee. *Progress in Materials Science* 143 (2024) 101254
8. Exploring the Impact of Concentration and Temperature Variations on Transient Natural Convection in Electrowinning/Electrorefining: A Finite Volume Method Analysis. **A.N. Colli\*** and J.M. Bisang. *J. Electrochem. Soc.* 170 (2023) 083505
9. Considerations about the gas fraction in two-phase electrochemical reactors by using a rigorous hydrodynamic model. **A.N. Colli\*** and J.M. Bisang. *Chem. Eng. Sci.* 276 (2023) 118699
10. Mass-transfer studies in a parallel-plate electrochemical reactor with ultrasonic assistance under single-phase and two-phase (gas-evolving) flows. **A.N. Colli**, B.j. Uasuf Vega and J.M. Bisang.\* *J. Electroanal. Chem.* 928 (2023) 117011
11. Current and Potential Distribution in Two-Phase (Gas Evolving) Electrochemical Reactors by the Finite Volume Method. **A.N. Colli\*** and J.M. Bisang. *J. Electrochem. Soc.* 169 (2022) 034524
12. Tertiary current and potential distribution including laminar/turbulent convection, diffusion and migration by the finite volume method using OpenFOAM. **A.N. Colli\*** and J.M. Bisang. *Ind. Eng. Chem. Res.* 60 (2021) 11927–11941
13. A multi-region and open-source CFD tool for electrochemical systems with three-dimensional electrodes. **A.N. Colli\*** and J.M. Bisang. *AIChE Journal.* 67 (2021) e17371
14. The effect of a conical inner electrode on the mass-transfer behaviour in a cylindrical electrochemical reactor under single-phase and two-phase (gas-liquid) swirling flow. C.C. Contigiani, **A.N. Colli**, O. Gonzalez Perez y J.M. Bisang.\* *J. Electrochem. Soc.* 167 (2020) 083501
15. Coupling k Convection-Diffusion and Laplace Equations in an Open-source CFD Model for Tertiary Current Distribution Calculations. **A.N. Colli\*** and J.M. Bisang. *J. Electrochem. Soc.* 167 (2020) 013513
16. Non-precious electrodes for practical alkaline water electrolysis. **A.N. Colli,\*** H.H. Girault and A. Battistel. *Materials.* 12 (2019) 1336

17. Evaluation of a modified hydrocyclone as electrochemical reactor for processing of two-phase (gas-liquid) systems. **A.N. Colli**, J.P. Fornés, O. Gonzalez Perez and J.M. Bisang.\* *Electrochim. Acta* 309 (2019) 219-227
18. Time-dependent mass-transfer behaviour under laminar and turbulent flow conditions in rotating electrodes: A CFD study with analytical and experimental validation. **A.N. Colli\*** and J.M. Bisang. *Int. J. Heat Mass Transf.* 137 (2019) 835-846
19. Current and potential distribution in electrochemical reactors with activated or resistive electrodes. A multiregion and open source approach. **A.N. Colli\*** and J.M. Bisang. *Electrochim. Acta.* 290 (2018) 676-685
20. A CFD Study with Analytical and Experimental Validation of Laminar and Turbulent Mass-Transfer in Electrochemical Reactors. **A.N. Colli\*** and J.M. Bisang. *J. Electrochem. Soc.* 165 (2018) E81-E88
21. Compact and General Strategy for Solving Current and Potential Distribution in Electrochemical Cells Composed of Massive Monopolar and Bipolar Electrodes. **A.N. Colli\*** and H.H. Girault. *J. Electrochem. Soc.* 164 (2017) E3465-E3472
22. Combination of cumulative flow and convergent flow as a means to improve the uniformity of the tertiary current distribution in parallel-plate electrochemical reactors. **A.N. Colli\*** and J.M. Bisang. *J. Electrochem. Soc.* 164 (2017) E42-E47
23. High energy density  $\text{MnO}_4^-/\text{MnO}_4^{2-}$  redox couple for alkaline redox flow batteries. **A.N. Colli,\*** P. Peljo and H.H. Girault. *Chem. Comm.* 52 (2016) 14039-14042
24. Study of the influence of boundary conditions, non ideal stimulus and dynamics of sensors on the evaluation of residence time distributions. **A.N. Colli\*** and J.M. Bisang. *Electrochim. Acta.* 176 (2015) 463-471
25. Comparison of the performance of flow-by three-dimensional cylindrical electrochemical reactors with inner or outer counter electrode under limiting current conditions. **A.N. Colli** and J.M. Bisang.\* *Electrochim. Acta.* 154 (2015) 468-475
26. The effect of a perpendicular and cumulative inlet flow on the mass-transfer distribution in parallel-plate electrochemical reactors. **A.N. Colli** and J.M. Bisang.\* *Electrochim. Acta.* 137 (2014) 758-766
27. Mass-transfer characterization in a parallel-plate electrochemical reactor with convergent flow. **A.N. Colli** and J.M. Bisang.\* *Electrochim. Acta.* 113 (2013) 575-582
28. Mass transfer studies in an electrochemical reactor with a small interelectrode gap. **A.N. Colli**, R. Toelzer, M.E.H. Bergmann and J.M. Bisang.\* *Electrochim. Acta.* 100 (2013) 78-84
29. Characterization of a bipolar parallel-plate electrochemical reactor for water disinfection using low conductivity drinking water. E.R. Henquín, **A.N. Colli**, M.E.H. Bergmann and J.M. Bisang.\* *Chem. Eng. Process.* 65 (2013) 45-52
30. Validation of theory with experiments for local mass transfer at parallel plate electrodes under laminar flow conditions. **A.N. Colli** and J.M. Bisang.\* *J. Electrochem. Soc.* 160 (2013) E5-E11
31. Generalized study of the temporal behaviour in recirculating electrochemical reactor systems. **A.N. Colli** and J.M. Bisang.\* *Electrochim. Acta.* 58 (2011) 406-416
32. Evaluation of the hydrodynamic behaviour of turbulence promoters in parallel plate electrochemical reactors by means of the dispersion model. **A.N. Colli** and J.M. Bisang.\* *Electrochim. Acta.* 56 (2011) 7312-7318

**Presented**

1. Modeling of Electrochemical Reactors for the Reduction of Metal Oxides in Molten Salts **A.N. Colli, J. Fransaer**. XXVI Congress of the Iberoamerican Society of Electrochemistry. *Portugal. Lisbon. May. 2024*
2. Fundamental and Applied Study for the Electrochemical Production of Peroxodicarbonate **A.N. Colli, O. González Pérez, J. M. Bisang**. XXVI Congress of the Iberoamerican Society of Electrochemistry. *Portugal. Lisbon. May. 2024*
3. Study of the current, potential and gas fraction distributions in two-phase electrochemical reactors (liquid-gas) using the finite volume method **A.N. Colli, J. M. Bisang**. XXV Congress of the Iberoamerican Society of Electrochemistry. *Mexico. Online. Apr. 2022*
4. Production of powdery solids in electrochemical reactors with helical flow **C.C. Contigiani, J.P. Fornés, O. González Pérez, A.N. Colli, J. M. Bisang**. Argentine and Latin American Engineering Congress 2021: CADI CLADI. *Buenos Aires, Argentina. Oct. 2021*
5. Modified Hydrocyclone as Electrochemical Reactor: Modelling, Characterization and Applications **A.N. Colli, J.P. Fornés, O. González Pérez, J. M. Bisang**. 71st Annual meeting of the International Society of Electrochemistry. *Belgrade, Serbia. Online. Sep. 2020*
6. Assessment of electrochemical reactors for the removal of sulphur dioxide and production of sulphur from synthetic effluents **A.N. Colli, C. C. Contigiani, J.P. Fornés, O. González Pérez, J. M. Bisang**. 71st Annual meeting of the International Society of Electrochemistry. *Belgrade, Serbia. Online. Sep. 2020*
7. Influence of geometry and kinetic of hydrogen and oxygen evolution on the current density distribution and electrode potentials in bipolar electrolyzers **A.N. Colli, H. Vrabel, E. Burkhalter, H.H. Girault**. 1<sup>st</sup> International Conference on Electrolysis. *Copenhagen, Denmark. Jun. 2017*
8. Permanganate as a Positive Redox Couple of Alkaline Redox Flow Batteries **A.N. Colli, P. Peljo, H.H. Girault**. 67<sup>th</sup> Annual meeting of the International Society of Electrochemistry. *The Hague, The Netherlands. Aug. 2016*
9. Cumulative and Convergent Flow as a Means to Improve the Tertiary Current Distribution at Parallel-Plate Electrochemical Reactor **A.N. Colli, J.M. Bisang**. 67<sup>th</sup> Annual meeting of the International Society of Electrochemistry. *The Hague, The Netherlands. Aug. 2016*
10. Screening of redox couples for alkaline redox flow batteries **A.N. Colli, P. Peljo, V. Amstutz, H.H. Girault**. The International Flow Battery Forum. *The Karlsruhe, Germany. Jun. 2016*
11. Study of the perpendicular entry to the working electrode in an electrochemical parallel plate reactor **A.N. Colli, J.M. Bisang**. XXI Congress of the Iberoamerican Society of Electrochemistry. *La Serena, Chile. Apr. 2014*
12. Studies on the injection time of the pulse in the stimulus-response technique used to characterizing electrochemical reactors hydrodynamic **A.N. Colli, J.M. Bisang**. XXI Congress of the Iberoamerican Society of Electrochemistry. *La Serena, Chile. Apr. 2014*
13. Study of the behaviour of a reactor with a three-dimensional rotating cylinder electrode **A.N. Colli, J.M. Bisang**. XX Congress of the Iberoamerican Society of Electrochemistry. *Fortaleza, Brazil. Mar. 2012*
14. Hydrodynamic performance of a parallel plate electrochemical reactor by means of the dispersion model **A.N. Colli, J.M. Bisang**. XIX Congress of the Iberoamerican Society of Electrochemistry. *Alcalá de Henares, Spain. Jun. 2010*

15. Numerical resolution of the axial dispersion model. Comparison with simplified analytical equations **A.N. Colli**. 4<sup>th</sup> Meeting of Young Researchers of Universities of Santa Fe. *Santa Fe, Argentina*. **Nov. 2009**
16. Study of Electrochemical reactors with three-dimensional electrodes of cylindrical configuration **A.N. Colli**. 3<sup>th</sup> Meeting of Young Researchers of Universities of Santa Fe. *Santa Fe, Argentina*. **Oct. 2008**
17. An experimental study of the morphological characteristics of copper electrodeposits in three-dimensional electrodes **A.N. Colli**, J.M. Bisang. 6<sup>th</sup> Spring Meeting of the International Society of Electrochemistry. *Foz do Iguaçu, Brazil*. **Mar. 2008**

## Contributed to

18. Effect of ultrasound on the mass-transfer in a parallel-plate electrochemical reactor under single-phase and two-phase (gas-evolving) flows **A.N. Colli**, B.J. Uasuf Vega, **J.M. Bisang**. WCCE11-11<sup>th</sup> WORLD CONGRESS OF CHEMICAL ENGINEERING. *Buenos Aires, Argentina*. **Jun. 2023**
19. Production of powdery solids in electrochemical reactors with helical flow **C.C. Contigiani**, J.P. Fornés, O. González Pérez, **A.N. Colli**, J. M. Bisang. Argentine and Latin American Congress of Engineering 2021:CADI CLADI. *Buenos Aires, Argentina*. **Oct. 2021**
20. Fundamental study for the spontaneous reduction of sulfur dioxide to colloidal sulfur by nickel-based alloys **J.P. Fornés**, **A.N. Colli**, J.M. Bisang. XXIII Congress of the Iberoamerican Society of Electrochemistry. *Cusco, Perú*. **Jun. 2018**
21. Electrochemical production of colloidal sulphur by oxidation of sulphide at a lead-coated three-dimensional rotating cylinder anode **J.M. Bisang**, J.P. Fornés, **A.N. Colli**. 10<sup>th</sup> World Congress of Chemical Engineering. *Barcelona, Spain*. **Oct. 2017**
22. Redox electrocatalysis and indirect water electrolysis for charging electric vehicles V. Amstutz, A. Battistel, **A.N. Colli**, C. Dennison, P. Peljo, H. Vrabel, **H.H. Girault**. 67<sup>th</sup> Annual meeting of the International Society of Electrochemistry. *The Hague, The Netherlands*. **Aug. 2016**
23. Electrochemical production of colloidal sulfur through a reactor with parallel plate electrodes and convergent flow **J.P. Fornés**, J.M. Bisang, **A.N. Colli**. VIII Argentine Congress on Chemical Engineering. *Buenos Aires, Argentina*. **Aug. 2015**
24. Mass Transfer Performance of a Parallel Plate Reactor with Convergent Flow **A.N. Colli**, **J.M. Bisang**. 64<sup>th</sup> Annual meeting of the International Society of Electrochemistry. *Santiago de Querétaro, Mexico*. **Sep. 2013**
25. Local Mass Transfer Study at Parallel Plate Electrodes Under Laminar Flow Conditions **A.N. Colli**, **J.M. Bisang**. 64<sup>th</sup> Annual meeting of the International Society of Electrochemistry. *Santiago de Querétaro, Mexico*. **Sep. 2013**
26. Mass transfer studies in an electrochemical reactor with small interelectrode gaps, typical for drinking water disinfection R. Toelzer, **A.N. Colli**, J.M. Bisang, **M.E.H. Bergmann**. 63<sup>rd</sup> Annual meeting of the International Society of Electrochemistry. *Prague, Czech Republic*. **Aug. 2012**
27. Results from residence time distribution studies using a technical-scale electrochemical reactor for drinking water disinfection **A.N. Colli**, **M.E.H. Bergmann**, J.M. Bisang. 63<sup>rd</sup> Annual meeting of the International Society of Electrochemistry. *Prague, Czech Republic*. **Aug. 2012**
28. Modelling of reactors for solar-powered electrochemical disinfection E.R. Henquín, **M.E.H. Bergmann**, **A.N. Colli**, J.M. Bisang, A. Rittel. International conference on 120 years of engineering education. *Köthen, Germany*. **Oct. 2011**

## SUBSIDIES RECEIVED

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- Modelado y estudio experimental de reactores electroquímicos bifásicos** Sep. 2021 – Sep. 2024
- Subsidiado por el Consejo Nacional de Investigaciones Científicas y Técnicas. Director: Ing. José M. Bisang; Función en el proyecto: Codirector del Proyecto. Código: 11220200101735CO. Resolución: RESOL-2021-1639-APN-DIR
- Evaluación experimental y teórica de reactores electroquímicos con condiciones hidrodinámicas mejoradas para el procesamiento de sistemas bifásicos (gas-líquido)** Ene. 2021 – Dec. 2024
- Subsidiado por la Universidad Nacional del Litoral en el marco del “Curso de Acción para la Investigación y el Desarrollo” correspondientes a la convocatoria CAI+D 2020. Director: Ing. José M. Bisang; Función en el proyecto: Codirector del Proyecto. Código: 50620190100002LI. Resolución C.S. N° 378/20
- Evaluación experimental y teórica de reactores electroquímicos con condiciones hidrodinámicas mejoradas para el procesamiento de sistemas bifásicos (gas-líquido)** Jun. 2020 – Jul. 2024
- Subsidiado por la Agencia Nacional de Promoción Científica y Tecnológica (ANPCyT) PICT 2018-01565. Director: Ing. José M. Bisang; Función en el proyecto: Codirector del Proyecto.
- Estudios de la distribución de corriente y tiempos de residencia en reactores electroquímicos utilizados para el almacenamiento de energía.** Aug. 2017 – Aug. 2019
- Subsidiado por la Universidad Nacional del Litoral en el marco del “Curso de Acción para la Investigación y el Desarrollo” correspondientes a la convocatoria CAI+D 2016. Director: Dr. Alejandro Colli; Función en el proyecto: Director. Código: 50020150100010LI. Res. C.S. N° 48/17

## COMPETITIVE GRANTS & SCHOLARSHIPS

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- Swiss Government Excellence Scholarship** Sep. 2015 – Sep. 2016  
Laboratory of Physical and Analytical Electrochemistry – EPFL   
Sion, Switzerland
- Enhancing the energy storage capacity of redox flow batteries. Advisor: Prof. H.H. Girault.
- Postdoctoral fellowship from CONICET** Apr. 2014 – Mar. 2015  
PRELINE – FIQ – UNL   
Santa Fe, Argentina.
- Study of the influence of fluid dynamics on the distribution of reaction rates in electrochemical reactors with three-dimensional electrodes. Advisor: Prof. J.M. Bisang.
- Fellowship of the Iberoamerican Society of Electrochemistry** Dec. 2011  
Instituto de Química. Universidade de São Paulo   
São Paulo, Brazil
- To attend the International School of electrochemistry.
- International Internship** Jun. 2011 – Aug. 2011  
Anhalt University of Applied Sciences   
Köthen, Germany
- “Advanced Oxidation Methods for Water Treatment”, adopted in the framework of the Scientific and Technological Cooperation between the Ministry of Science, Technology and Productive Innovation of Argentina (MINTCYT) and the Bundesministerium für Bildung und Forschung (BMBF) of Germany. German Advisor: Prof. H. Bergmann. Argentinian Advisor: Prof. J.M. Bisang.
- PhD fellowship from CONICET** Apr. 2009 – Mar. 2014  
PRELINE – FIQ – UNL   
Santa Fe, Argentina
- Experimental and Theoretical Study of Deviations from Ideality in Electrochemical Reactors. Advisor: Prof. J.M. Bisang.
- Research internship** Jul. 2008 – Mar. 2009  
PRELINE – FIQ – UNL   
Santa Fe, Argentina
- Analysis of non-ideal behavior of electrochemical reactors. Advisor: Prof. J.M. Bisang.
- Initial Research fellowship for undergraduate students** Mar. 2007 – Jun. 2008  
PRELINE – FIQ – UNL   
Santa Fe, Argentina

- Study of electrochemical reactors with three-dimensional electrodes of cylindrical configuration. Advisor: Prof. J.M. Bisang.

### Research internship

Departamento de Matemáticas y área de Fisicoquímica (INCAPE) – FIQ – UNL 

May. 2006 – May. 2007

Santa Fe, Argentina

- Modelling and simulation of catalytic processes for pollution control. Advisor: Dr. Eduardo Miró, Co-Advisor: Dr. Silvia Hartzstein.

## MENTORING AND ADVISING

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### Co-Advisor of the Scientific Scholar Mr. Bernabé Uasuf

Aug. 2021 – Dec. 2022

Mass-transfer Improvement in electrochemical reactors by ultrasound application

### Co-Advisor of the German chemical engineering student Robin Toelzer

Oct. 2011 – Dec. 2011

Advanced Oxidation Methods for Water Treatment

### Internship Co-Advisor of the chemical engineering student Gabriel A. González

Mar. 2011 – Sep. 2011

Fluid dynamics of electrochemical reactors by the stimulus-response technique

## TEACHING EXPERIENCE

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### Degradation, Corrosion and Materials Protection

2010 – Present

Materials Engineering – FIQ – UNL 

Santa Fe, Argentina

### Electrochemical Technology & Electrochemical Engineering

2010 – Present

Chemical Engineering – FIQ – UNL 

Santa Fe, Argentina

### Probability and Statistics

09/2014 - 09/2015

Industrial Engineering and Chemical Engineering – FIQ – UNL 

Santa Fe, Argentina

## PROFESSIONAL MEMBERSHIPS AND COMMUNITY INVOLVEMENT

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### Member of the Iberoamerican Society of Electrochemistry (SIBAE)

2011 – Present

### Member of the International Society of Electrochemistry (ISE)

2013 – Present

### Member of the jury for closed competition for student teachers

Oct. 2007

Facultad de Ingeniería Química – Universidad Nacional del Litoral 

Santa Fe, Argentina

### Member of the Directive Council

Feb. 2007 – Sep. 2007

Facultad de Ingeniería Química – Universidad Nacional del Litoral 

Santa Fe, Argentina

## SKILLS

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**Languages:** Spanish (Native), English (Intermediate), French (Beginner).

**3D CAD Electronics Design:** SolidWorks, Pic, Arduino, Proteus, KiCad.

**CFD – Numerical – Programming:** OpenFOAM, Matlab, Octave, R, C++, Python.

**Operating systems:**  

**Document Creation:** Microsoft Office, LibreOffice, L<sup>A</sup>T<sub>E</sub>X.

## REVIEWER FOR THESES, CANDIDATES AND ACADEMIC PROJECTS

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**Theses:** Estudio de la Reacción del Electrodo de hidrógeno en juntas heteroatómicas en electrodos bi-componentes”, propuesta por la Lic. Mariela Alicia BRITES HELÚ - DNI n° 33.624.344, Doctora en Química. FIQ-UNL. Marzo de 2018

**Project:** PICT-2019-I-D - Temas abiertos - Equipos de trabajo de reciente formación. Año 2019

**Project:** I+D de la Comisión Sectorial de Investigación Científica (CSIC) de la Universidad de la República (Udelar), Uruguay. Año 2024

**Candidate:** Concurso de Ingreso a la Carrera de CONICET. Año 2024

**Electrochimica Acta:** Reference: EO16-3783, 12/2016. EO17-2102 and R1, 05-07/2017. EO17-4516, 09/2017. EA18-0368, 01/2018. EA18-2794, 05/2018. EA18-1959R and R1, 04-05/2018. EA18-3329R, 06/2018. ISE18-18-06, 03/2019. EA19-2452, 04/2019. ISE-2020-S-20-07012, 12/2020. EA21-1757, 05/2021. EA22-0445 and R1, 02-04/2022. EA22-4399 and R1, 10-12/2022. EA23-1608, 06/2023. EA24-0235 and R1. 03-06/2024.

**Journal of the Electrochemical Society:** Reference: JES-106455, 12/2021. JES-106455.R1, 02/2022. JES-109435, 01/2023. JES-109435.R1, 02/2023.

**Chemical Engineering Journal:** Reference: CEJ-D-19-05916, 05/2019. CEJ-D-19-14090. 10/2019. CEJ-D-24-19052, 06-07/2024

**Chemical Engineering Science:** Reference: D-20-02612, 11/2020. D-20-02612R1, 03/2021. D-22-00126, 02/2022. D-24-00186, 03/2024.

**International Journal of Electrochemical Science:** Reference: 130113, 01/2018.

**Computers & Chemical Engineering:** Reference: CACE 2019 592 and CACE 2019 592 R1. 07-09/2019.

**Materials MDPI:** Reference: 530112, 06/2019.

**Energies MDPI:** Reference: 621607, 10/2019. 670873, 12/2019. 902084, 08/2020. 923123 and R1, 08-09/2020.

**Membranes MDPI:** Reference: 799085 and Revision, 05-05/2020.

**Batteries MDPI:** Reference: 1986472 10/2022.

**Remote sensing MDPI:** Reference: 968486, 10/2020.

**Catalysts MDPI:** Ref: 1773555 and R1, 06/2022.

**OpenFOAM® Journal:** Reference: 249, 09/2021. 931.R1, 06/2022. 1228.R2 10/2022.

**Journal of Advanced Research in Fluid Mechanics and Thermal Sciences:** Reference: 4539, 06/2020.

**Chemical Engineering Communications:** Reference: discussion of GCEC-2013-0192, 07/2020.

**Journal of Combustion:** Reference: 6673494, 12/2020.

**Journal of Electroanalytical Chemistry:** Reference: D-21-01211, 07/2021.

**Process Safety and Environmental Protection:** Ref: PSEP-D-22-00829, 04/2022. PSEP-D-22-00829.R1 06/2022. PSEP-D-22-00829.R2 07/2022.

**International Journal of Energy Research:** Ref: ID 7241962. 07/2023.

**Industrial & Engineering Chemistry Research:** Ref: ie-2023-025898. 08/2023.

**Journal of Environmental Chemical Engineering:** Ref: JECE-D-23-06734, 09/2023. JECE-D-25-16602 and R1, 09-11/2025

**Chemical Engineering Research and Design:** Ref: CHERD-D-23-02340 10-11/2023.

**Results in Engineering:** Ref: RINENG-D-24-00940 05/2024.

**Journal of Solid State Electrochemistry :** Ref: JSEL-D-25-00272 03/2025.