# — Milan Skocic, PhD —

## — Electrochemistry and Materials —

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## Work Experience

🛗 May 2017 — Now: 🗣 PhD, Electrochemist

- Project Management
- High temperature electrochemistry
- Corrosion of Zr-based and Ni-based alloys in aqueous high temperature environment

🛗 Oct. 2015 — Feb. 2017: 🎙 PhD, Metallic Material

🖊 Areva NP – 🕈 France

- Project Management
- Stress corrosion cracking in Inconel 718: HT/HP slow tensile tests
- Corrosion of Zr-based alloys: HT/HP electrochemistry

🛗 Oct.2012 — Oct. 2015: ᡐ PhD Project - "Photoelectrochemical study of the Shadow Corrosion" 🍱 Areva/SIMaP Lab – 🗣 France

- Design and realization of a new electrochemical cell for HT/HP corrosion tests
- Validation of the HT/HP electrochemical cell
- HT/ HP (photo-)electrochemical characterizations
- Classical corrosion tests in autoclaves at HT and HP
- Coupling with chemistry loop

🛗 Feb. 2012 — Aug. 2012: 🌄 Master Intership - "Metallic bipolar plates for PEMFC"

🕍 Air Liquide – 🕈 France

- State of the art of the coated stainless steels
- Set-up of the electrochemical tests
- Measurement of the interfacial contact resistance
- TEM/SEM observations
- Go between the different partners involved in the project

🛗 Apr. 2011 — Aug. 2011: 🏲 Master Internship - "Compositionally graded steels"

McMaster University, Materials Engineering Department - ♥ Canada

- Carburization of microtruss samples
- Prepared and characterized the samples (phase fraction)
- Modelling of compressive peak stress

🛗 2007 — 2009: 🗣 Technician

- Prepared samples: cutting, mounting, polishing
- Used microstructural characterization devices: SEM-FEG, TEM, RX diffractometer
- Used thermo-mechanical treatment devices: Gleeble, hot rolling pilot, tensile tests

🛗 Aug. 2005 — Jun. 2006: 🗣 Technician

■ Pyrolisis Center (CPM) – 

France

France

- Carried out pyrolysis tests on pilot furnace
- Prepared and characterized coke and coal samples

#### Education

## 2012 — 2015: ₱️ PhD, Materials and Electrochemistry – ₱️ University of Grenoble – ♥ France

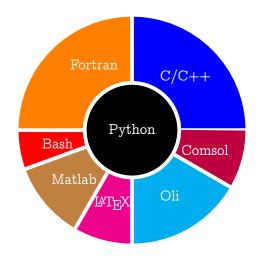
🛗 2012 — 2015: 🎓 Engineer, Electrochemistry – 🗐 Grenoble INP (PHELMA) – 🕈 France

## 2003 — 2005: ► Technician, Analytical Chemistry – ■ University of Metz – ♥ France

### Language Skills

Serbian ★★★★★ English ★★★★☆ English ★★★☆

# Computer Skills



#### PhDs - Technical Mentoring

- S. El Euch, "Recherche d'une corrélation entre caractéristiques électrochimiques et relâchement en nickel de l'alliage 690 en milieu primaire d'un réacteur à eau pressurisée," Université Sorbonne, Paris, 2019.
- F. Da Fonseca, "Etude du phénomène de shadow corrosion des alliages de zirconium dans les réacteurs à eau bouillante (REB)," Université de Grenoble Alpes, Grenoble, 2021.
- J. Ben Mohamed, "Etude des mécanismes de Corrosion sous contrainte des alliages 600/690 en milieu secondaire des réacteurs REP en présence de plomb et de soufre.," Ecole Nationale Supérieure des Mines de Saint-Etienne, Saint-Etienne, 2021.
- D. Peyret, "Mécanismes électrochimiques de la corrosion des alliages de type ZrNbX en condition simulées de réacteur à eau pressurisée," Université Sorbonne, Paris, 2023.

#### **Publications**

- [1] K. Abu Samk, M. Skocic, H. Zurob, and O. Bouaziz, "Microtruss Cellular Nanocomposites", *TMS Annual Meeting*, vol. 1, pp. 337–344, May 2012.
- [2] M. Skocic, D. Kaczorowski, D. Perche, and J.-C. Nuguet, "Paper Number 83: High Temperature (Photo-)Electrochemical setup for Studying Zr-based and Ni-based Alloys in Simulated LWR Conditions", in *NPC* 2016, Brighton, UK: Nuclear Institute, Oct. 3, 2016.
- [3] P. Barberis, M. Skocic, D. Kaczorowski, D. Perche, Y. Wouters, and K. Nowotka, "Shadow corrosion: Experiments and modeling", *Journal of Nuclear Materials*, vol. 523, pp. 310–319, Sep. 1, 2019.
- [4] S. E. Euch, D. Bricault, H. Cachet, E. M. Sutter, M. T. Tran, V. Vivier, N. Engler, A. Marion, M. Skocic, and B. Huerta-Ortega, "Temperature dependence of the electrochemical behavior of the 690 Ni-base alloy between 25 and 325 °C", *Electrochimica Acta*, vol. 317, pp. 509–520, Sep. 10, 2019.
- [5] N. Ribière, N. Engler, D. Brimbal, M. Skocic, É. Andrieu, C. Blanc, and L. Laffont, "Multi-scale characterization of the inner surface of as-received steam generator tubes and correlation with the ni release in primary water", *Corrosion Science*, vol. 218, p. 111 205, 2023.
- [6] D. Peyret, D. Kaczorowski, M. Skocic, B. Tribollet, and V. Vivier, "Electrochemical and modelling study of zrnbo alloys aged under high temperature and high pressure pwr simulated conditions", *Corrosion Science*, vol. 224, p. 111 505, 2023.
- [7] N. Ribière, J. Esvan, N. Engler, D. Brimbal, M. Skocic, É. Andrieu, C. Blanc, and L. Laffont, "An XPS and TEM study of the composition and structure of native oxides on the inner surface of as-received Ni base alloy steam generator tubes", *Applied Surface Science*, vol. 654, p. 159514, May 1, 2024.
- [8] N. Ribière, J. Esvan, N. Engler, D. Brimbal, M. Skocic, É. Andrieu, C. Blanc, and L. Laffont, "Xps and tem characterization of oxides formed in simulated primary water on steam generator tubes made of ni based alloy", *Corrosion Science*, vol. 249, p. 112823, 2025.