



Northwestern
University

2 Post-doc positions at Northwestern

Location: The [Mechanics and Energy Lab \(MEL\)](#) within the [Department of Civil & Environmental Engineering](#) at Northwestern University, directed by Prof. Alessandro F. Rotta Loria, develops theoretical and experimental studies to unravel the impact of [energy transfers](#) on the structure, properties, and behavior of [geological materials](#). The goal of this basic research is to underpin novel techniques and technologies that can disrupt the [sustainability](#) and [resilience](#) of [built environments](#) via novel interactions with soils, rocks, concrete, and systems thereof.

Position: The MEL is seeking [two post-doctoral fellows](#) to work on highly multidisciplinary projects located at the intersection of [electrochemistry](#) and [mechanics of materials](#). The selected candidates will join an ongoing research program addressing the effects of [electric stimulations](#) on the [structure, properties and behavior of geological materials](#). Specifically, one post-doc project will focus on the influence of [electrodeposition](#) on the physics and chemistry of [concrete](#), while another post-doc project will focus on the influence of [electrodeposition](#) on the physics and chemistry of [soils](#). These projects will predominantly involve multiscale [experimental laboratory investigations](#), but they will also include [theoretical analyses](#) of the considered subjects. Interested candidates are encouraged to reach out to Prof. Rotta Loria for a comprehensive description of such positions.

Candidate: To be considered for this position, a [Ph.D. or equivalent degree](#) in [electrochemistry, chemistry, mechanics, materials science, civil and environmental engineering](#) or other related fields is required. Applicants nearing completion of their Ph.D. are encouraged to apply. A [strong expertise in electrochemistry or mechanics of materials](#) is required for this position. Independent research skills, teamwork capabilities, excellent communication skills, and commitment are desired. The selected candidate will be expected to proactively develop the research foreseen for this position.

Conditions: This [full-time position will start on January 1, 2022, or as soon as possible thereafter](#), and will last [1 year](#), with the possibility to be extended after this period. Cutting-edge research facilities and a competitive salary are offered for this position. Northwestern University is characterized by a highly international and inclusive environment, which is full of training and development opportunities. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, protected veteran status, or any other characteristic protected by law. Applications from all who would bring additional dimensions to the mission of Northwestern are most welcome.

Contact: Please contact Prof. Alessandro F. Rotta Loria (af-rottaloria@northwestern.edu) for more information about this position and the MEL. This call closes on January 1, 2022. Candidates are encouraged to apply as soon as possible by sending *as a single PDF*: (i) a 1-page cover letter, (ii) a curriculum vitae with their publications list, (iii) contact information of two references and (iv) two representative publications.

