

Post-Doctoral Position In Photovoltaic Lifetime and Degradation Science¹

A Post-Doctoral Research Associate /Senior Research Associate position is available in the **Solar-Durability and Lifetime Extension Center** in the Department of Materials Science and Engineering at Case Western Reserve University, under the direction of Prof. Roger H. French. This optical materials science research focuses on solar radiation and environmental durability of long-lived materials, elements and systems including photovoltaics. The research associate will perform research for lifetime and degradation studies on materials, components and systems, including laboratory-based (accelerated) and real-world exposures and optical characterization techniques including UV/Vis, FTIR, fluorescence, colorimetry, and light scattering. Additionally will develop quantitative mechanistic models for degradation processes in materials and bulk interfaces of components and systems using statistical analytics including semi-gSEM. Preference will be given to individuals with experience in photovoltaic optical and electrical characterization and a demonstrated ability to lead a project, analyze and organize data, and write manuscripts.

Ph.D. degree required. Experience in photovoltaics, optical materials, optical spectroscopy, device characterization, statistical analytics, R programming language, reliability and physics of failure, and lifetime and degradation science is important. Experience in computational materials science, optical raytracing, finite element analysis, thermomechanical and chemical reaction rate modeling is useful.

Applicants should send a cover letter including a brief description of research experience and interests, a curriculum vitae, and contact information for at least three references to:

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In employment, as in education, Case Western Reserve University is committed to Equal Opportunity and World Class Diversity.

1. Roger H. French, et. al, **Degradation science: Mesoscopic evolution and temporal analytics of photovoltaic energy materials"** *Current Opinion in Solid State and Material Science*, [doi:10.1016/j.cossms.2014.12.008](https://doi.org/10.1016/j.cossms.2014.12.008)