Opening: Postdoctoral Associate in Advanced Characterization of Polycrystalline Thin Film Absorbers

The DEfECT lab at Arizona State University has an opening for an outstanding Postdoctoral Associate in the field of advanced characterization of thin film solar cells. The project encompasses the study of lifetime limiting defects in CIGS and CdTe by in operando X-ray microscopy and the generation of materials’ design guidelines based on data analytics and deep learning approaches.

The successful applicant is expected to pursue innovative research on broad aspects of X-ray characterization of materials using advanced synchrotron facilities at National Labs and in-house microscale characterization. He or she will be responsible for the design and implementation of state-of-the-art characterization techniques and instrumentation and the subsequent data analysis efforts of multiscale and multidimensional data.

The postdoctoral associate will have a leadership role in this project and as such will be responsible for communicating with partner institutes, leading meetings, writing quarterly reports (in addition to scientific manuscripts), and ensuring that the projects meet their milestones. Technology commercialization and intellectual property creation is a central focus of the group, and the postdoc will also have the opportunity to, e.g., participate in intellectual property creation. All candidates must have the ability to conduct self-directed research, mentor graduate students, and work collaboratively with academic team members in related fields. Candidates should be creative and productive, as evidenced by unique scholarly or other technical contributions to research projects.

Qualifications:
All applicants must have a PhD in physics, chemistry or a relevant engineering discipline. The candidate should have a solid background in materials characterization, knowledge of synchrotron or X-ray science is preferred. Experience with statistical analysis and Python coding is a plus. We are looking for a self-motivated, committed and innovative researcher to join a fast-paced group that strives to redefine materials’ design. Excellent writing and presentation skills are a must.

The position is expected to start in Spring 2018. He or she will be offered a competitive salary and the opportunity to travel regularly to conferences. The appointment is for two years with the possibility of a 2-year extension pending satisfactory performance and the continued availability of funds.

Interested applicants should submit a cover letter and a complete CV including three references to Prof. Mariana Bertoni (bertoni@asu.edu).