Job Description

Job title: Postdoctoral Research Fellow
Job with: Prof. Kazuhiro Ohkawa at KAUST
Number of position: 1
Period: 2019-2021 (2 years and a possibility of one-year extension)

Position summary
To develop efficient and stable photo-electrochemical cells to be used as catalysts for water splitting. This position is based on a collaboration with Saudi Basic Industries Corporation (SABIC) (PI: Prof. Hicham Idriss). The researcher will prepare, plan and complete photo-electrochemical catalytic experiments. Studies will involve the electrolyte/semiconductor interface and oxide/semiconductor interface. In addition to a sound background in Material Science and Catalysis knowledge of solar energy conversion and solar cells is desired.

Major responsibilities
- Develop new photo-electrochemical cells
- Improve efficiency of the photo-electrochemical cells
- Confirm durability of the photo-electrochemical cells
- Study the interface phenomena to improve efficiency and durability
- Submit patent applications related to the project
- Publish papers based on the results obtained from this project
- Have chances to present the results in national/international conferences and workshops

Other responsibilities
- Work with PhD, MS, visiting students, and researchers from industries
- Write monthly progress reports or as frequently needed.
- Ability to work extended hours as needed

Qualifications
- PhD degree in Chemistry, Physics or a related engineering field.
- Expertise in electrochemistry, material growth and catalysis. Additional expertise in some of the following would be a plus: solar cells, electron-beam evaporation, spin coating, metalorganic chemical vapor deposition, optical measurements (PL, time-resolved PL), SEM, TEM, XPS, and XRD.

Contact
Kazuhiro Ohkawa
Professor of Electrical Engineering, King Abdullah University of Science and Technology (KAUST)
E-mail: kazuhiro.ohkawa@kaust.edu.sa

Hicham H Idriss
Fellow, Corporate Research and Innovation, SABIC
E-mail: idrissh@sabic.com