



## PROFILE

Principal Investigator  
DuPont Electronics & Imaging

## CITATION

For his scientific contributions in the development of key semiconductor lithography material, including photoresists for DUV and EUV lithography



# EMAD AQAD

**Asian American Most Promising Engineer of the Year**

Dr. Emad Aqad received his B.Sc., M.Sc. and Ph.D. degrees in chemistry from Ben-Gurion University of the Negev, Israel. His undergraduate research involved design, synthesis and studies of organic strong electron donor (D) and acceptor (A) molecules capable of multi-stage redox processes and D-A electronic interactions. These novel compounds exhibit unusual electro- and photo-physical properties and are important components of advanced materials.

Dr. Aqad was the recipient of the French Distinguished Chateaubriand Fellowship and was a visiting scholar at the CNRS Laboratory of Molecular Engineering and Organic Materials in Angers, France. He was a postdoctoral fellow at the University of Alabama and the University of Pennsylvania before joining Rohm and Haas in 2007. His research interest lies at the interface of organic and material chemistry, focusing on design, synthesis and study of the properties of complex molecular, macromolecular and supramolecular organic materials and their implementation in the fabrication of electronic devices.

Dr. Aqad is now a Principal Research investigator at DuPont Electronic and Imaging business. His work at Dupont revolves around the development of sophisticated lithographic materials. Of central importance is his research on lithographic materials designed for advanced patterning technologies such as KrF, ArF and Extreme Ultraviolet Lithography (EUVL). His innovative solutions have been the foundation for commercially enabling lithographic products.

Dr. Aqad has 26 issued US patents with more than 18 pending US patents and is author and co-author of 36 technical peer reviewed papers. He was recipient of Israeli Chemical Society Distinguished Scholar Award and the recipient of Dow Electronic Materials Career Impact Excellence in Science Award.