



## Asian American Engineer of the Year

### Dr. Hongyou Fan

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Principal Member of Technical Staff  
Sandia National Laboratories

#### Citation of Accomplishment:

**Pioneering contributions to the development of novel synthesis methods and self-assembly processes to fabricate multifunctional nanomaterials for applications in sensing, energy storage, and nanoelectronic applications; for his inspiration and mentoring of next generation of US engineers; and for his continuing community service to K-12 education.**

Dr. Hongyou Fan is a Principal Member of Technical Staff at Sandia National Laboratories where he has worked since 2000. His research focuses on soft self-directed-assembly and engineering of nanostructured materials and elucidation of their structure/property relationship for device integration. Through his research and expertise, he developed innovative cutting-edge technologies in support of Department of Energy (DOE)/Sandia long-term missions and goals and resolved key technical challenges from customers. His work has been recognized by many prestigious internal and external international awards, including Sandia's Laboratory Directed Research and Development (LDRD) Award for Excellence, R&D Magazine's R&D 100 Award for technically significant products, the Federal Laboratory Consortium's (FLC) Outstanding Technology Development Award, and a University of New Mexico (UNM) Mentor Award.

Dr. Fan has authored or co-authored ~ 60 scientific papers, including seven papers for the prestigious journals Nature and Science and six articles that appeared on journal covers. He has over 4,000 total citations and over 20 patents and patent applications. Dr. Fan has delivered many invited lectures at major technical conferences and universities. He has served on the organizing committees and as section chair for many national and international conferences. He is a research-proposal reviewer for major government funding agencies and a technical referee for a list of peer-reviewed journals.

Dr. Fan is actively involved and leads many community service activities with a focus on K-12 education and providing inspiration for the next generation of US scientists and engineers. He managed the Albuquerque Institute of Math and Science High School Intern Program (2009- 2011), which connects high school students with Sandia mentors. For many years, he has served as a mentor and host for students and teachers from the National Science Foundation Research Experiences for Undergraduates program, NASA's Summer High School Apprenticeship Research Program (SHARP) program, DOE's Academies Creating Teacher Scientists (ACTS) K-12 Teacher Research Program, and Sandia's STAR High School Intern Program.

Dr. Fan received his B.S. in Chemistry from Jilin University in 1990; M.S. in Polymer Chemistry and Physics from the Chinese Academy of Sciences in 1995; and Ph.D. in Chemical Engineering from the University of New Mexico in 2000.

