



DIVISION OF POLYMERIC MATERIALS: SCIENCE & ENGINEERING

Cooperative Research Award in Polymer Science and Engineering

Sponsored by the Eastman Kodak Company

2014 Award Winners

Emanuel P. Giannelis

Cornell University

Clois E. Powell

Gary W. Beall

Texas State University



American Chemical Society Division of Polymeric Materials: Science and Engineering's 2014 Award for Cooperative Research in Polymer Science and Engineering is given to Dr. Emanuel Giannelis [right] from Cornell University and Dr. Clois Powell [center] and Dr. Gary Beall [left] from Texas State University. This award was initiated in 1992 endowed by a generous gift from the Eastman Kodak Company.

The 2014 award is given in recognition of sustained, intensive, collaborative research between Drs. Giannelis at Cornell University, Powell at Southern Clay Products (SCP), and Beall at Nanocor. This collaborative work on polymer-clay nanocomposites spanned for more than a decade (1993-2005) and laid the foundation for polymer nanocomposites industry. This team's research impacted several industrial sectors; light weight transportation for improved energy efficiency and fire safety of buildings are two examples. The direct legacy of the Cornell-SCP-Nanocor team influenced the largest segment of polymer nanocomposites market based on nanoclays. The nanocomposites work on carbon nanotubes, graphene, and nano-oxides also enjoyed the developments in science, concepts and processing innovations pioneered by Giannelis, Powell, and Beall. Dr. Richard Vaia, Technology Director, Functional Materials Division, Materials and Manufacturing Directorate, Air Force Research Laboratory at Wright-Patterson AFB and nominator of this team, summarized the impact of the research as follows, "As demonstrated by the impact of the Cornell group (# of Citations 25,600, h-factor of 62, # PhD 20, and more than 80 postdoctoral associates and visiting scientists) and the business reach of Nanocor (26 patents and ~30 industrial partnerships) and Southern Clay Products (7 patents and ~44 for industrial partnerships), this team was the center of the exponential growth of polymer nanocomposites in the late 1990s and 2000s." Here is what the judges of the award competition said about the nomination, "Giannelis and cohorts established the area of clay composites is, in my opinion, compelling." and "had a clear impact on the scientific community with their work, and the science has translated to commercial products."

Dr. Giannelis received B.S. in Chemistry from University of Athens, Greece and Ph.D. in Inorganic Chemistry at Michigan State University. He joined Cornell University in 1987 as an assistant professor of Materials Science and Engineering department and rose through the ranks to become a professor in 1999. He is currently Chair of Materials Science and Engineering and Walter R. Read Professor of Engineering at Cornell University. Dr. Powell received B.S. and M.S. in Chemistry from California State University Long Beach and Ph.D. in Organic Chemistry from Rutgers University. He is currently the Associate Director, Center for Nanophase Research, IEIS at Texas State University-San

<http://www.pmsedivision.org>



DIVISION OF POLYMERIC MATERIALS: SCIENCE & ENGINEERING

Marcos. Dr. Beall received B.S. in Chemistry from Tarleton State University and M.S. and Ph.D. in Physical Chemistry from Baylor University. Dr. Beall is currently the Formosa Professor and Assoc. Dean of Res. & Comm. at Texas State University.

An award symposium to honor the 2014 winners will be held at the national ACS meeting in Dallas on Tuesday, March 18 (Start: 1:30 PM). The award will be presented at the joint Division of Polymeric Materials: Science and Engineering and Division of Polymer Chemistry joint awards reception in Dallas.