

Chemical & Biomolecular Seminar Series



David Sholl

School Chair, Michael E. Tennenbaum Family Chair, GRA Eminent Scholar for Energy Sustainability

Chemical & Biomolecular Engineering

Georgia Institute of Technology

Friday, December 2, 2016

10:00—11:00 a.m.

102 Colburn Lab

David Sholl is the School Chair of Chemical & Biomolecular Engineering at Georgia Tech, where he is also the Michael E. Tennenbaum Family Chair and GRA Eminent Scholar in Energy Sustainability. David's research uses computational materials modeling to accelerate development of new materials for energy-related applications, including generation and storage of gaseous and liquid fuels and chemicals and carbon dioxide mitigation. He has published over 290 papers. He has also written a textbook on Density Functional Theory, a quantum chemistry method that is widely applied through the physical sciences and engineering. David is a Senior Editor of the ACS journal Langmuir. More information on David's research group is available from www.chbe.gatech.edu/sholl

Developing New Nanoporous Materials for Practical Applications Using Computational Modeling – How Close Is the Dream to Reality?

Nanoporous materials such as zeolite or metal-organic frameworks have many potential applications, including as adsorbents and active components in membranes for chemical separations. The ability to use computational modeling in a genuinely predictive way to develop new nanoporous materials for targeted applications has been a long standing goal (dream?) in the research community. I will talk about how recent advances are bringing this goal within reach and what opportunities and barriers exist with these approaches in the future.