Scott M. Auerbach

Scott Auerbach has been on the chemistry faculty at UMASS Amherst for more than twenty years. He graduated Summa cum Laude from Georgetown University in 1988 with a BS in Chemistry and a minor in Mathematics, prior to graduating with a PhD in theoretical chemistry from UC Berkeley, having studied quantum reactive scattering theory, funded by an NSF graduate fellowship. After a postdoc at UC Santa Barbara modeling diffusion in nanoporous materials funded by an NSF postdoctoral fellowship, he began an academic position in 1995 at UMass Amherst in the Department of Chemistry. In 1996, Prof. Auerbach was appointed adjunct professor of chemical engineering; he was promoted to associate professor of chemistry with tenure in 2000, and to full professor of chemistry in 2004.

Professor Auerbach's research focuses on modeling and designing advanced materials and catalysts of importance to emerging renewable energy technologies including biofuels and fuel cells, leading to 2 books and over 110 peer-reviewed articles. Professor Auerbach's group also models the molecular-level mechanisms of self-assembly of nano-structured materials. Professor Auerbach has won several research awards including an NSF Career Award in 1998, a Sloan Fellowship in 1999, and a Camile Dreyfus Teacher-Scholar Award in 1999. In 2006, Prof. Auerbach won the UMass College of Natural Sciences and Mathematics Outstanding Teacher Award, and in 2016 Auerbach won the inaugural UMass Manning Prize for Teaching Excellence on the Amherst campus.

From 2008-2016, Professor Auerbach was the founding director of the Integrated Concentration in Science (iCons) Program, which challenges undergraduate science and engineering students to integrate fields of study to design solutions for societal problems in areas such as renewable energy and biomedicine. The iCons Program has impacted over 360 students from 25 different majors across science, engineering, and public health fields, and has graduated 120 students from four cohorts. In general, Professor Auerbach remains committed to curricular and pedagogical reforms in undergraduate education that boost student engagement, efficacy, and integration of thought.