

Jeffrey R. Long

Jeff Long is an Associate Professor, and a Vice-Chair of the Department of Chemistry, at the University of California, Berkeley. His work focuses on developing new approaches to the synthesis of inorganic clusters and solids, with emphasis on controlling the physical structure of materials as a means of tailoring the physical properties. His group is involved in establishing predictive solid state reaction schemes, including dimensional reduction — a high-temperature method for dismantling binary solid frameworks. In addition, they have shown how molecular clusters can be used to expand the crystal structures of simple coordination solids, such as Prussian blue. The resulting materials present a series of stable microporous solids that can be directed toward functioning as sieves, sensors, and catalysts. Recently, these materials have also been developed for applications in hydrogen storage.

Since beginning his independent research career at Berkeley, Long has received a number of awards, including the Research Corporation Research Innovation Award (1998), the Hellman Family Faculty Award (1999), the Camille Dreyfus Teacher-Scholar Award (2000), an Alfred P. Sloan Research Fellowship (2001-2003), the Wilson Prize from Harvard University (2002), a TR100 Award from MIT's Technology Review magazine (2002), a Special Creativity Award from the National Science Foundation (2003-2005), the National Fresenius Award (2004), and the PLU Carl Fresenius Award Lectureship at Purdue University (2005).