

Energy and Resources Group Spring 2009 Colloquium Series (ER295)

March 4, 2009



Cyrus Wadia

Energy and Resources Group
University of California Berkeley

**Iron and Copper Sulfide as a New Solar PV
Platform: Linking the Economics to the Chemistry**

110 Barrows Hall / 4:00 p.m.

Cyrus will provide an in-depth look at his dissertation research to discover and develop a new material system toward a more expansive solar photovoltaic future. He will cover topics of: material selection based on abundance, new synthetic pathways to iron pyrite (FeS_2) and chalcocite (Cu_2S), and preliminary results from working PV devices fabricated with these new materials.

Cyrus has spent the last five years at U.C. Berkeley and the Lawrence Berkeley National Lab (LBNL) in pursuit of a new low cost photovoltaic technology using metal sulfides. Leveraging his knowledge in both the natural and social sciences, Cyrus' research covers both exhaustible resource economics and the aqueous chemistry of nanoparticles. His work has resulted in two provisional patents and three peer reviewed journal articles highlighting the strength of a multi-disciplinary approach to solving the complicated issues of renewable energy supply. His work was a first of its kind at U.C. Berkeley and has spawned a pervasive interest in basic science research informed by fundamental economics and guided by market potential. While completing his doctoral work in Energy & Resources, Cyrus was awarded the E.P.A Star fellowship. In 2006 he founded the U.C. Berkeley PV Idealab, a collaboration of all photovoltaic research activity on campus and in 2008 he was named by the Chancellors office as the VP of Idealabs for the entire U.C. Berkeley campus.

Prior to his doctoral studies, Cyrus spent over 7 years in Silicon Valley launching new technology to market. First as an engagement manager with R.B. Webber & Co where he worked with over 15 different venture backed startups; and next as a Senior Product Manager with AvantGo, where he completed several successful new product introductions. Most recently, Cyrus has demonstrated his entrepreneurship skills as the founder of a boutique Internet services startup specializing in complex data analysis.

Cyrus earned his PhD in Energy & Resources from U.C. Berkeley and holds both an M.S. and S.B. in Chemical Engineering from MIT.