

Julia R. Greer

Biography

Greer's research focuses on creating and characterizing new classes of materials that utilize the combination of 3-dimensional architectures with nanoscale-induced material properties. These nano-architected meta-materials have multiple applications as biomedical devices, battery electrodes, and lightweight structural materials and provide a rich "playground" for fundamental science. Greer has S.B. in Chemical Engineering (minor in Advanced Music Performance) from MIT in 1997, Ph.D. in Materials Science from Stanford, worked at Intel (2000-03) and was a post-doc at PARC (2005-07). Julia joined Caltech in 2007 and currently is a full professor with appointments in Materials Science, Mechanical Engineering, and Medical Engineering.

Greer has over 100 publications; she was recently named a Vannevar-Bush Faculty Fellow (2016) and CNN's 20/20 Visionary (2016), she was selected as a Midwest Mechanics lecturer (2015), and her work was recognized among Top 10 Breakthrough Technologies by MIT's Technology Review (2015). She was a Gilbreth Lecturer at the National Academy of Engineering (2015), is a Young Global Leader by World Economic Forum (2014) and is a recipient of multiple awards: Kavli Early Career (2014), Nano Letters Young Investigator Lectureship (2013), Society of Engineering Science Young Investigator (2013), TMS Early Career Faculty (2013), NASA Early Career Faculty (2012), Popular Mechanics Breakthrough Award (2012), ASME Early Career (2011), DOE Early Career (2011), TMS's Young Leaders (2010), DARPA's Young Faculty (2009), Technology Review's TR-35, (2008), and NSF's CAREER (2007). Greer serves as an Associated Editor of Nano Letters and on the Board of Reviewing Editors for Science. She is also a concert pianist, with recent performances of "nanomechanics rap" with MUSE/IQUE, solo piano recitals and chamber concerts (2007-present), and as a soloist of Brahms Concerto No. 2 with Redwood Symphony (2006).