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Materials Science and Engineering

THE 2014 DOW LECTURE

Jennifer A. Lewis

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School of Engineering and Applied Sciences
Harvard University

Tuesday, May 20, 2014
Tech L211, 4:00pm

"3D Printing of Functional and Biological Materials"

The ability to pattern functional materials in planar and three-dimensional forms is of critical importance for several emerging applications. 3D printing enables one to rapidly design and fabricate materials in arbitrary shapes without the need for expensive tooling, dies, or lithographic masks. In this talk, I will describe how we have created multiple functional and biological inks and demonstrated their use in 3D printing of electronics, sensors, batteries, and vascularized tissues.

Biography: Jennifer A. Lewis joined the faculty of the School of Engineering and Applied Sciences and the Wyss Institute for Biologically Inspired Engineering at Harvard University in 2013. Prior to her appointment at Harvard, she served as the Hans Thurnauer Professor of Materials Science and Engineering and the Director of the Frederick Seitz Materials Research Laboratory at the University of Illinois at Urbana-Champaign. Her research group focuses on the directed assembly of soft functional and biological materials. She recently founded two companies to commercialize the technologies developed in her lab.

Lewis is the recipient of the NSF Presidential Faculty Fellow Award (1994), the ACerS Brunauer Award (2003), the ACS Langmuir Lecture Award (2009), and the MRS Medal Award (2012). She is a Fellow of the ACerS (2005), APS (2007), MRS (2011), and the American Academy of Arts and Sciences (2012). She serves on the Editorial Advisory Boards of *Advanced Materials, Advanced Functional Materials*, and *Soft Matter*.

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