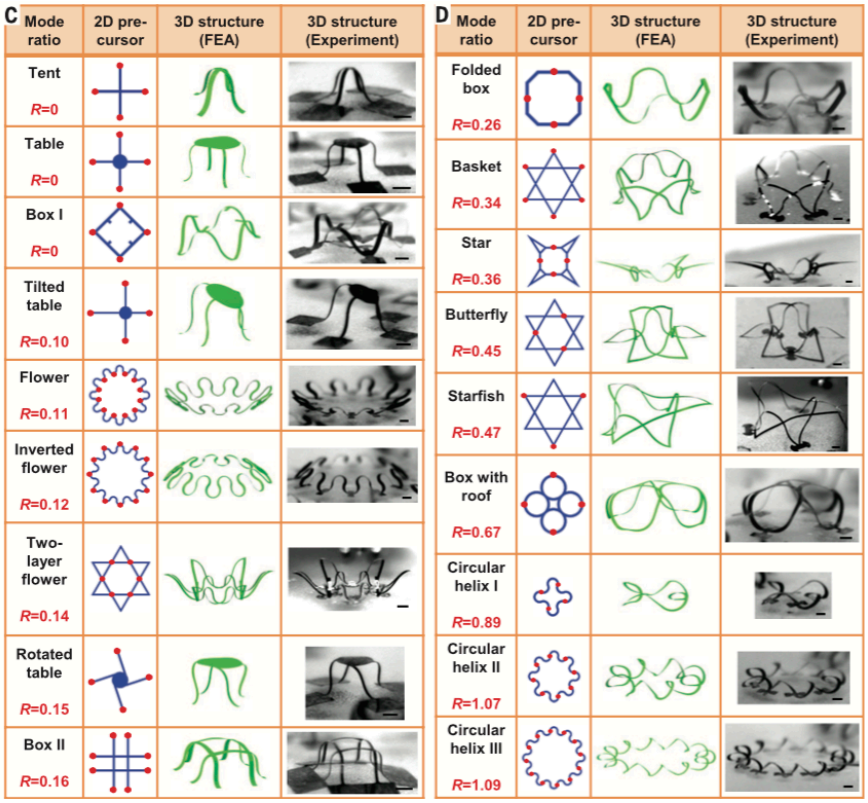
Professor John A. Rogers



Two-dimensional structures that buckle into 3-D structures

(from: "Assembly of micro/nanomaterials into complex, three-dimensional architectures by compressive buckling", Science, Vol. 347, No. 6218, 9 January 2015)

See:
http://www.matse.illinois.edu/faculty/Rogers.html
http://rogers.matse.illinois.edu/
https://scholar.google.com/citations?user=sXhiROYAAAAJ&hl=en
http://www.chemistry.illinois.edu/faculty/john_rogers.html
http://www.macfound.org/fellows/61/
http://video.mit.edu/watch/dr-john-a-rogers-profile-video-7771/

Director of the Seitz Materials Research Laboratory
Department of Materials Science and Engineering
University of Illinois at Urbana-Champaign

Biography/Career/Awards:

Professor John A. Rogers obtained BA and BS degrees in chemistry and in physics from the University of Texas, Austin, in 1989. From MIT, he received SM degrees in physics and in chemistry in 1992 and the PhD degree in physical chemistry in 1995. From 1995 to 1997, Rogers was a Junior Fellow in the Harvard University Society of Fellows. During this time he also served as a founder and Director of Active Impulse Systems, a company that commercialized technologies developed during his PhD work. He joined Bell Laboratories as a Member of Technical Staff in the Condensed Matter Physics Research Department in 1997,

and served as Director of this department from the end of 2000 to 2002. He currently is Swandlund Chair Professor at University of Illinois at Urbana/Champaign with a primary appointment in the Department of Materials Science and Engineering. He also holds joint appointments in the Departments of Chemistry, Bioengineering, Mechanical Science and Engineering, and Electrical and Computer Engineering. He is the Director of the Seitz Materials Research Laboratory and a permanent member of the Center for Advanced Study at the University of Illinois.
Rogers' research includes fundamental and applied aspects of nano and molecular scale fabrication as well as materials and patterning techniques for unusual electronic and photonic devices, with an emphasis on bio-integrated and bio-inspired systems. He has published more than 350 papers, and is an inventor on over 80 patents and patent applications, more than 50 of which are licensed or in active use by large companies and startups that he has co-founded. His research has been recognized with many awards including, most recently, the American Ingenuity Award from Smithsonian Magazine (2013), Robert Henry Thurston Award from the American Society of Mechanical Engineers (2013), the Mid-Career Researcher Award from the Materials Research Society (2013), the Lemelson-MIT Prize (2011), a MacArthur Fellowship from the John D. and Catherine T. MacArthur Foundation (2009), the George Smith Award from the IEEE (2009), the National Security Science and Engineering Faculty Fellowship from the Department of Defense (2008), the Daniel Drucker Eminent Faculty Award from the University of Illinois (2007) and the Leo Hendrick Baekeland Award from the American Chemical Society (2007). Rogers is a member of the National Academy of Engineering (NAE; 2011) and the American Academy of Arts and Sciences (2014). He is a Fellow of the Institute for Electrical and Electronics Engineers (IEEE; 2009), the American Physical Society (APS; 2006), the Materials Research Society (MRS; 2007) and the American Association for the Advancement of Science (AAAS; 2008).

Rogers, director of the Seitz Materials Research Laboratory, writes: "We seek to understand and exploit interesting characteristics of 'soft' materials, such as polymers, liquid crystals, and biological tissues as well as hybrid combinations of them with unusual classes of micro/nanomaterials, in the form of ribbons, wires, membranes, tubes or related. Our aim is to control and induce novel electronic and photonic responses in these materials; we also develop new 'soft lithographic' and biomimetic approaches for patterning them and guiding their growth. This work combines fundamental studies with forward-looking engineering efforts in a way that promotes positive feedback between the two. Our current research focuses on soft materials for conformal electronics, nanophotonic structures, microfluidic devices, and microelectromechanical systems, all lately with an emphasis on bio-inspired and bio-integrated technologies. These efforts are highly multidisciplinary, and combine expertise from nearly every traditional field of technical study."

Selected Publications:
For a list see https://scholar.google.com/citations?user=sXhiROYAAAAJ&hl=en and the link, "Prof. Yonggang Huang".