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Title:

Additive Manufacturing of Micro/Nano Structures for Flexible Sensors and Actuators

Abstract:

Micro/Nano structures are building blocks of most sensors, flexible displays, biological tissues and intelligent robots etc. However, most fabrication methods including CVD and screen printing are unable to build micro/nano structures with diverse materials and multi-dimensions (dots, lines and films etc), which are needed in many applications. Additive manufacturing technologies, especially electrohydrodynamic printing (EHDP), are simple yet versatile to fabricate micro/nano structures. Here we will introduce some advance of EHDP technology involving Weissenberg effect based printing and massive electrospinning etc. in our lab. Also fabrication of some flexible sensors and actuators such as flexible pressure sensors and intelligent soft robots will be discussed.

Biography:

Dezhi Wu is a professor at Xiamen University, China. He received his doctoral degree in Measurement & Metrology Technology and Instrumentation from Xiamen University (China) in 2009 after he got Master degree from Wuhan University of Technology (China). In 2015, he did research as visiting scholar in University of California at Berkeley (UCB). His research interests

include micro/nano fabrication and flexible sensors/actuators. Till now he has published more than 60 papers and more than 16 patents have been issued.