

Skin-inspired Materials for Conformal Sensors

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Abstract

Smart wearable sensors not only enrich daily lives by providing enhanced smart functions, but also provide health information by monitoring body conditions. For example, patchable sensors have the potential to better interface with human skin, thus improving the sensitivity of detection of health indicators. However, the crucial aspects toward the advancement of such sensors rely on the development of novel mechanically durable materials, which allow maintaining the function under the deformed states. In this talk, I will present our latest progress on manufacturing skin-inspired materials, fabricating conformal sensors and integrating individual devices into systems. Our work opens possibilities for new applications in artificial senses, cyber-human systems, wearable healthcare, soft robotics, implantable electronics, and so on.