Flexible devices for energy harvesting and chemical sensing

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Recently, different approaches based on energy harvesting technology, which convert thermal, solar and mechanical energy resources into electrical energy, have been thoroughly studied. Among these renewable energy resources, the mechanical and thermal energies seems to be one of the most preferred ways for generating electricity, considering that it is the most ubiquitous and accessible energy source
in the surroundings. The conversion of these energy sources into electrical power in order to make wireless self-powered systems has been proposed and investigated by several research groups.
Present talk will review different micro and nano-level approaches for fabrication of wearable low cost harvester systems for chemical and physical sensing based on 2D-materials and piezoelectric nanofillers.