

## Flexible Thermoelectric Generators Using Organic Materials by Printing Process

조성윤<sup>†</sup>  
한국화학연구원  
(scho@kriect.re.kr<sup>†</sup>)

Thermoelectric energy conversion is an attractive and environmentally friendly way to recover energy from industrial waste heat or natural heat because of its potential for improving the energy efficiency. As thermoelectric materials, organic materials have unique advantages, such as cost effectiveness, low intrinsic thermal conductivity, high flexibility, and amenability to large area applications. Therefore, organic conducting polymers, which possess good electrical conductivity, have been actively researched. In addition, various carbon based materials such as CNT are also good candidates for organic thermoelectric materials. Herein, we will discuss a convenient method to fabricate flexible thermoelectric generators using various organic materials by printing process.