

## Environmentally Benign Fabrication Process for High Performance Organic Thermoelectric Generator with Controlling Doping Concentration

하재연, 정대성<sup>†</sup>  
대구경북과학기술원  
(dchung@dgist.ac.kr<sup>†</sup>)

Organic materials are considering as a promising material for the thermoelectric generators for power source for mobile electronics, because of their characteristics of low thermal conductivity, flexibility, and low cost. Despite these advantages, most organic thermoelectric generators (OTGs) have the disadvantage of being processed through a solution process using toxic solvents such as chloroform and chlorobenzene, which can have a significant adverse impact on the environment and human health. In the last few years, studies have been carried out on the processing of polymer semiconductors in an environmentally friendly manner, and in particular the use of water as a solvent using a miniemulsion process has been successful. In this study, high performance OTG is fabricated by controlling the doping concentration and applying the miniemulsion process.