

### Comparison of electronic properties of PEDOT:PSS through different post-treatments

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The poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) (PEDOT:PSS), which is a representative conducting polymer, is environment friendly and easy process and flexibility due to hydro-dispersive. The transparent electrode indium tin oxide (ITO), which is currently being used, is not ideal because of its high cost and limited availability. For this reason, PEDOT:PSS is attracting attention as the most promising material to replace inorganic ITO. Enhanced electrical property by means of different processing methods is studied on film and solution conditions. These processes have the purpose of improving electrical properties such as conductivity. In addition, the structural, surface, optical and electrical properties of each process were compared, respectively. On film conditions, conductivity of  $1605 \text{ S cm}^{-1}$  was obtained about three times higher than before the sulfuric acid process. In addition, conductivity increased 457 to  $752 \text{ S cm}^{-1}$  on the solution conditions by microfiltration process.