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Fabrication of Poly(*p*-phenylene)/Zeolite Composite as a Gas Sensor Material PIMCHANOK PHUMMAN, Chulalongkorn University, ANUVAT SIRIVAT, Chulalongkorn University — Poly(*p*-phenylene) (PPP) is a one of conductive polymers that can be used as a gas sensing material because of its optical and electrical property changes when exposed to a gas. PPP has several advantages such as the ease of synthesis, high stability, and chemical resistance. Sensors are required to have very sharp chemical specificity with high sensitivity toward chemicals. In this work, several zeolites are added into conductive polymer matrix to improve selectivity and sensitivity of the sensors toward a flammable gas such H₂. The effects of Si/Al ratio, zeolite content, cation type on the electrical conductivity are systematically investigated.

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