

**NANOCOMPOSITE POLYMER ELECTROLYTES BASED ON
PEMA-PVC BLEND: PREPARATION AND ELECTRICAL
CHARACTERIZATION**

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CURRICULUM VITAE

ABSTRACT

Polymer electrolytes composed of a blend of poly (vinyl chloride) (PVC) and poly (ethyl methacrylate) (PEMA) as a host polymer, LiBF₄ as a salt and SiO₂ as a filler was prepared by solution casting technique with tetrahydrofuran (THF) as solvent. The conductivity measurement of the samples was carried out by using a HIOKI model in the frequency range 1 kHz to 1 MHz and is analysed using impedance spectroscopy (IS). The maximum conductivity at room temperature was found to be 2.484 E-7 Scm⁻¹ for PEMA-PVC-LiBF₄ (98) : SiO₂(2) in weight percentage.