

**CONDUCTIVITY STUDIES OF PEO- LiBF₄ – EC POLYMER
ELECTROLYTES**

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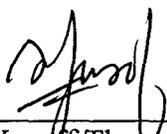
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ABSTRACT

CONDUCTIVITIES STUDIES OF PEO-LiBF₄-EC POLYMER ELECTROLYTES

In this work, PEO is used as a polymer host while lithium tetrafluoroborate (LiBF₄) as the doping salt to prepare dry polymer electrolytes systems by using solution casting technique. The ionic conductivity was investigated with the additional concentration of salt. PEO-LiBF₄ polymer electrolytes with highest ionic conductivity were used for preparing plasticized polymer electrolytes (PEO-LiBF₄-EC) with different concentration of EC added as plasticizer. The ionic conductivity of plasticizer polymer electrolytes was studied. Ionic conductivity values in the order of 10⁻⁴ or 10⁻⁵ Scm⁻¹ were obtained from the PEO-LiBF₄-EC system.