

Lithium Oxide Effect on the Thermal and Physical Properties of the Ternary System Glasses (Li₂O₃-B₂O₃-Al₂O₃)

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Abstract : The borate glasses are known by their structural characterized by existence of unit's structural composed by triangles and tetrahedrons boron in different configurations depending on the percentage of B₂O₃ in the glass chemical composition. In this paper, effect of lithium oxide addition on the thermal and physical properties of an alumina borate glass, was investigated. It was found that the boron abnormality has a significant effect in the change of glass properties according to the addition rate of lithium oxide.

Keywords : borate glasses, triangles and tetrahedrons boron, lithium oxide, boron anomaly, thermal properties, physical properties

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