

# **FERRO-ELECTRIC BEHAVIOR OF POTASSIUM RUBIDIUM TRI TITANATES**

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## **ABSTRACT**

Ferroelectric sample of polycrystalline  $\text{KRB)Ti}_3\text{O}_8$  has been prepared using high temperature solid state reaction. Room temperature X-ray diffractograms confirm the phase evolution. Rubidium ions occupy the Potassium lattice sites giving rise to electric dipoles which increases electric permittivity. Dielectric data reveal that occupancy of Rubidium ions on Potassium ions leads to decrease in dielectric loss and an increase in the electric permittivity as well. The sample shows ferroelectric phase transition and hysteresis also.

**KEYWORDS:** Dielectric Properties, Alkali tri-titanates, ferroelectrics.