**Structural, thermal and antibacterial activity on creatininium 4-methyl-benzene-sulfonate single crystals**

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**Abstract**

A good organic single crystal of creatininium 4-methyl-benzene-sulfonate (CRMBS) was grown by slow evaporation technique and the orthorhombic system with non-centrosymmetric space group (P212121) is corroborated by single-crystal X-ray diffraction analysis. Thermal stability of the CRMBS crystal is confirmed through TG/DTA analysis. The higher significant antibacterial activity of CRMBS were carried out by the standard Kirby-Bauer test against four pathogenic bacteria commonly called agar well diffusion process.

**Keywords**: SXRD, orthorhombic, thermal stability