

Electron Spin Resonance of Cr^{3+} in $\text{K}_{1-x}\text{Tl}_x\text{Al}(\text{SO}_4)_2 \cdot 12 \text{H}_2\text{O}$

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The electron spin resonance (ESR) of Cr^{3+} in $\text{K}_{1-x}\text{Tl}_x\text{Al}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ has been studied at 300 K and 9.45 GHz. The ESR spectrum for x between 30 and 90% shows several chromium complexes. The variation of the zero-field splitting parameter D suggests that monovalent ions play an important role in the trigonal distortion of the water octahedron around the trivalent metal ion in alums. – *PASC*: 76.30 F.

Key words: ESR; Cr^{3+} ; Zero-field Splitting.