

## **Solid state chemistry of new polysulphides in A/Sn/S (A = Na, K, Rb) systems**

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Ternary polychalcogenides containing chalcogen–chalcogen bonds are metastable compounds that have been reported to be isolated by only low temperature synthetic routes<sup>1</sup> such as the molten salt flux method, the solvothermal method etc. These compounds possess novel, low and three-dimensional structural frameworks and also unique physical properties. Synthetic and structural solid state chemistry of the polychalcogenides has been an active area of research for the last ten years. In this work, we present the results of our synthetic and structural investigations of polysulphides, in A/Sn/S (A = Na, K, Rb) systems possessing novel structures as determined by single crystal X-ray diffraction.

### **Reference**

1. Kanatzidis M G and Sutorik A C 1995 *Prog. Inorg. Chem.* **43** 151