

EFFECT OF Sn ADDITION ON THE SUPERCONDUCTING
PROPERTIES OF $\text{Bi}_4\text{Ca}_3\text{Sr}_3\text{Cn}_4\text{O}_y$

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Superconducting materials of nominal composition $\text{Bi}_4\text{Ca}_3\text{Sr}_3\text{Cn}_4\text{O}_y$ and $\text{Bi}_4\text{SnCa}_3\text{Cn}_4\text{O}_y$ have been prepared by the solid state reaction of their corresponding oxides. The first compound exhibits an electrical resistivity onsets at 120 K and 100 K with zero resistivity at 70 K, whereas the Sn substituted material shows an onset at 80 K and zero resistivity at 50 K. The XRD patterns of the two compounds were virtually the same except for some minor differences. The drop in T_c (zero) can be attributed to Sn substitution of the Bi-sites.