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Eect of Sintering Time On Sb Added BiPbSrCaCuO Superconducting Ceramics

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**Abstract:** In this study, superconducting Sb doped BiPbSrCaCuO ceramics with a fixed nominal composition were prepared and sintered at 850°C for different periods. The structural phases of the sintered ceramics were determined by means of the measurements of the resistivity-temperature behaviour and of the XRD analysis. Sb doping along with Pb doping in the BiSrCaCuO ceramics was observed to increase the volume fraction of the high  $T_c$  phase, the onset temperature and the critical temperature  $T_c$ . The critical temperature for the 100 hour sintered sample was 4K higher than that of the 60 hour sintered sample.

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