Flux Jump of MgB_2 Fabricated by Commercial Stainless Steel Tube Enveloping Technique

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MgB_2 samples have been prepared by a stoichiometric mixture of Mg and B inside stainless steel tubes(Commercial Stainless Steel Tube Enveloping Technique). XRD data show that there are no second phases like MgO. The transition temperature of specimens is 37.5 K with a sharp transition width of $\triangle T_c$ of 1K. From magnetic hysterisis measurement, flux jump was shown up to 15K which was higher than that of samples by other methods. We have concluded that the flux jump is mainly affected by impurities and second phases.

keywords : Flux jump, MgB_2, COSSET