AC Current Losses in a Coated Conductor

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We measured the field profiles by using scanning Hall probe method for AC LOSS. We compare AC LOSS of the second-generation YBCO-coated conductor deposited by PLD with those prepared by EDDC method. Using the Hall probe method, we measured each sample of the field profile, near the surface of the coated conductors. We calculated current profiles of coated conductors by the inversion method.

and we calculated AC loss. we calculated hysteretic energy losses per cycle $Q = \mu_0 I_c^2 / \pi \cdot f(I_{peak}/I_c)$, the characteristic function f_s , critical current I_c , peak of AC current I_{peak} . we calculated Q_s numerically from our data and comparison current profile of each sample PLD and EDDC.

Keyword : AC Loss