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## Angular dependences of critical current for REBCO coated conductors under bending strains

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REBCO coated conductors are expected to apply high field superconducting magnets since they have high critical currents and excellent mechanical properties. It is well known that REBCO coated conductors have angular dependence and strain dependence of the critical current in magnetic field. However, there are few experimental results of angular dependence of critical current under strains. Especially, the mechanism of the strain effect for REBCO has not been clear. In this study, the angular dependence of critical current of REBCO coated conductors under bending strains are investigated. A critical current measurement apparatus at various temperature, field, field angle and bending strains is developed. REBCO coated conductors with and without artificial pinning centers were prepared. The angular dependence of critical currents for the samples with micro-bridge of  $\sim 0.1$  mm width and 2 mm length were measured at 77 K, 0.4 T and bending strains of 0, 0.2 and 0.4%. We found that the difference of the critical currents at field angles of  $0^\circ$  and  $90^\circ$  is appeared under bending strains. The difference of the critical current behaviors between the samples with and without artificial pinning centers under bending strains are not observed.

**Primary author:** Mr KURIHARA, Yuuta (tokai university)

**Co-authors:** Dr OGURO, Hidetoshi (Tokai University); WATANABE, Sora (Tokai University)

**Presenter:** Mr KURIHARA, Yuuta (tokai university)

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