Angular distributions of the Critical Current of ReBCO Coated Conductors in magnetic field up to 5T

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For many applications of ReBCO tapes it is needed to know the anisotropy properties of the used conductor in a broad range of magnetic field. In this paper we present the results of transport measurements on the Sunam tape (GdBaCuO) with the rotation of the sample in magnetic fields up to 5 T in liquid nitrogen. The $I_c(\theta)$ curves show the appearance of distinct second peak around $c$-axis in low fields. This peak vanishes in the fields over 2.5 T. The evolution of the $ab$ peak form is also presented: the peak consistently reduces its height with the magnetic field going up and in the high-field it broadens, changing the type of the distribution. To describe experimental curves was used the maximizing information approach applied to the angular distributions of the critical current in magnetic field. Also we considered the usage of mass anisotropy approach for the high-field broadened distributions. The great match through the fields of analytical distributions with obtained data was observed confirming in particular the maximum entropy approach.