

Press Release



See **EHTS** at the SuperConductingCity

Hall 002, Booth D48

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EHTS achieved a 90% yield for biaxial buffering that allows critical currents of more than 300A/cm-width in coated conductors

Hanau – April 15th, 2008 – European High Temperature Superconductors (EHTS), a leading manufacturer of technical superconductors, announced today that it has achieved a 90% yield when processing YSZ (Yttria-Stabilized Zirconia) buffered tape with a total length of 2000 m. The bi-axially textured buffer layer fabricated via Alternating Beam Assisted Deposition (ABAD) represents a proprietary technology of EHTS to provide YBCO coated conductors on stainless steel substrate tape. This is the most cost effective solution, compared to Hastelloy or Ni-based tapes.

“This substantial increase of processing yield of substrate buffering will result in both higher reproducibility and improved production capacity for Coated Conductors (CC); previously, this technological step represented a bottle neck in the entire CC production”, stated Dr. Alexander Usoskin, head of the coated conductor R&D department at EHTS.

The new degree of quality achieved by ABAD and the high-rate pulsed laser process employed for deposition of the superconductor layer of YBCO resulted in significant improvement of critical currents with a maximal value of 306 A/cm-width within a 40m length of CC tape (measured at 77K & self field). The previous state of the art corresponded to 253 A/cm-width.

Dr. Burkhard Prause, Managing Director of EHTS, commented: “Our next goals are to upscale our production performance to enable us to produce consistently lengths of 1 km and longer with excellent critical currents”.

For further information, please contact also www.bruker-ehs.com.

European High Temperature Superconductors GmbH & Co. KG (EHTS, <http://www.bruker-ehs.com>) is the High Temperature Superconductor (HTS) subsidiary of the Bruker Corporation (<http://www.bruker.com>). The company is a leading manufacturer of HTS materials and devices, based on its broad conductor technology platform. EHTS products and services enhance the reliability and efficiency of electrical power grids and large energy demanding applications. Its proprietary SuperFast fault current limiter concept enhances power grid reliability and its current leads dramatically reduce electrical losses in large industry and research magnets. Conductors and components made by EHTS are used to build a new generation of compact high power devices such as motors, generators, cables and transformers as well as high field magnets for medical and research applications.