

T_CSUH Special Seminar

Texas Center for Superconductivity at the University of Houston

Dr. Giovanni Grasso

Columbus Superconductors SpA
Genova, Italy

“Current State of the MgB₂ Superconductor and Devices Development at Columbus Superconductors”

Tuesday, May 29, 2007

Room 102, University of Houston Science Center
11:00 a.m. – 12:00 noon

Abstract

Six years is a limited amount of time to bring a new material to a successful level of development. However, this is indeed happening for MgB₂, as recently proven by a number of impressive news items coming from industries and institutions working on it. The capability of MgB₂ wires and tapes to carry large currents at intermediate temperatures between those of liquid helium and liquid nitrogen has been recently demonstrated by the realization of a full scale prototype of an open MRI fully working system. Such a system contains many innovative features, such as the cryogenic-free operation and the innovative magnet design that reduces claustrophobia issues, as well as the use of as much as 18 Km of multifilamentary conductor. In this talk, the further progress of MgB₂ wire development will be discussed, with the aim of drawing a realistic picture of the future impact of MgB₂ on many superconducting devices.

Bio

Current Position:

Technical and Sales Director, shareholder of Columbus Superconductors SpA (Genoa, Italy) since its founding in February 2003.

Previous Positions:

Since 1990, Dr. Grasso has been active in the field of applications of high temperature superconductors, mainly from the point of view of the materials development, and the characterization of their electrical, magnetic, thermal, and microstructural properties. Dr. Grasso carried out his Ph.D. on the development of BSCCO based superconductors at the DPMC of the University of Geneva under the supervision of Prof. René Flukiger, where he worked between 1992 and 1997. Afterwards he joined INFN (National Institute for the Physics of Matter, now CNR-INFN) as senior Development Scientist, with the goal of founding and setting up the new LAMIA laboratory in Genoa, before leaving for Columbus Superconductors in March 2006. He has been co-author of more than 150 publications in international journals, conference proceedings, and book chapters. He is also inventor of three international patents on processing of high-temperature superconducting materials.

Persons with disabilities who require special accommodations in attending this lecture should call (713) 743-8210 as soon as possible.



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