

Coated Conductor Development and Applications in the United States of America

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Innovation and development of coated conductors and their applications are continuing in the USA in spite of the absence of a large and coordinated federal funding program on high temperature superconductors. Coated conductors are being developed for electric power applications as well as high field magnet applications. Coated conductor manufacturers are varying the composition, substrate type and thickness, and the stabilizer to customize the conductor for specific applications. New designs of high power density cables made of coated conductors are being developed for power applications, high field magnets, high energy physics, and fusion applications. There are several multi-institutional collaborative efforts underway to bring the coated conductor technology to market place. Many small businesses are working with universities and other research centers to develop technology components for power and magnet applications of coated conductors. The presentation will give a broad overview of the research and development activities on coated conductors and their applications in the United States. Specific examples will be presented to highlight the ongoing efforts at conductor manufacturers, universities, and commercial entities including small businesses.