

1. Record Nr.	UNINA9910346716003321
Autore	Bayer Christoph M
Titolo	Characterization of High Temperature Superconductor Cables for Magnet Toroidal Field Coils of the DEMO Fusion Power Plant
Pubbl/distr/stampa	KIT Scientific Publishing, 2017
ISBN	1000062054
Descrizione fisica	1 online resource (VII, 198 p. p.)
Collana	Karlsruher Schriftenreihe zur Supraleitung / Hrsg. Prof. Dr.-Ing. M. Noe, Prof. Dr. rer. nat. M. Siegel
Soggetti	Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Nuclear fusion is a key technology to satisfy the basic demand for electric energy sustainably. The official EUROfusion schedule foresees a first industrial DEMOnstration Fusion Power Plant for 2050. In this work several high temperature superconductor sub-size cables are investigated for their applicability in large scale DEMO toroidal field coils. Main focus lies on the electromechanical stability under the influence of high Lorentz forces at peak magnetic fields of up to 12 T.