1. Record Nr. UNINA9910346763003321

Autore	Franck Joachim
Titolo	Systematic Study of Key Components for a Coaxial-Cavity Gyrotron for DEMO
Pubbl/distr/stampa	KIT Scientific Publishing, 2017
ISBN	1000068000
Descrizione fisica	1 online resource (XX, 236 p. p.)
Collana	Karlsruher Forschungsberichte aus dem Institut für Hochleistungsimpuls- und Mikrowellentechnik
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The physical design of cavity and magnetron injection gun (MIG) for a realistic, DEMO-compatible, coaxial-cavity 238 GHz 2 MW CW fusion gyrotron is developed in this work, having auxiliary frequencies at 170 GHz and 204 GHz. Novel systematic approaches towards multi-frequency mode selection, magnet requirements, and MIG design are presented. Mode deterioration and voltage depression variation due to insert misalignment versus cavity wall and/or versus electron beam are studied.