1.	Record Nr.	UNINA9910779507803321
	Titolo	Nuclear reactors, nuclear fusion and fusion engineering [[electronic resource] /] / A. Aasen and P. Olsson, editors
	Pubbl/distr/stampa	New York, : Nova Science Publishers, c2009
	ISBN	1-60876-722-1
	Descrizione fisica	1 online resource (500 p.)
	Altri autori (Persone)	AasenA. <1963-> OlssonP. <1962->
	Disciplina	621.48
	Soggetti	Fusion reactors Nuclear engineering Nuclear fuels
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	""Nuclear Reactors, Nuclear Fusion and Fusion Engineering""; ""Contents""; ""Preface""; ""Research and Review Studies""; ""Neutron Physics Research for the Development of Accelerator-Driven Systems""; ""Abstract""; ""1.Why Nuclear Data for Accelerator-Driven Waste Incineration?""; ""2.Why Neutrons?""; ""3.Which Reactions Are of Interest for Waste Incineration?""; ""4.Why Accelerator-Driven Systems?""; ""5. Which Data Are of Interest for Accelerator-Driven Systems?""; ""6. Neutron Experiments - The Art of the Impossible?""; ""7.Survey of Recent High-Energy Experiments"" ""8.The Present Experimental Nuclear Data Situation"""9.Towards Application: From Cross Sections to Nuclear Data"; ""10.Theory and Nuclear Model Software""; ""11.An Example: Pb"; ""12.Future Possibilities""; ""Acknowledgements"; ""References"; ""An Overview about Modeling Approaches for Turbulent Mixing and Void Drift in Sub-Channel Analysis"; "Abstract""; ""Abbreviations"; ""1. Introduction ""; ""2. Turbulent Mixing ""; "3. Void Drift "; ""Conclusion ""; ""References "; "Quantum Theory Way to the Two-Laser Ignition Facility"; "Abstract"; "1.Introduction"" ""2.Necessity of Quantum Theory for Understanding Fusion Processes"""3.The Volkov Solution of the Dirac Equation"; ""4.The Compton Process from the Volkov Solution of the Dirac Equation"; ""5.

Quantum Theory of Emission of Photons by Electron Moving in the Impulsive Force"": ""6. Volkov Solution of the Dirac Equation for Massive Photons""; ""7.The Probability of Emission of Photons by Electron in a Circularly Polarized Wave""; ""8. The Solution of the Dirac Equation for Two Plane Waves""; ""9. Synchrotron Radiation from the Volkov Solution for the Dirac Electron Moving in Magnetic Field"" ""10.Conclusion""""References""; "The Development of Fuel Cladding Chemical Interaction Zones in Irradiated U-ZR and U-PU-ZR Fuel Elements with Stainless Steel Cladding""; ""Abstract""; ""1. Introduction""; ""2. Result of Post Irradiation Analyses of Fuel Elements"; ""3. Discussion""; ""4. Conclusion""; ""Acknowledgments"; ""U. S. Department of Energy Disclaimer""; ""References""; "Microalloving Design for Nuclear Reactor Pressure Vessel (RPV) Steels""; ""Abstract""; ""1. Introduction""; ""2. Prior Austenite Grain Refinement in Microalloved Steels"" ""3. Simulated HAZ in ASTM A508 and A533 Steels""""4. Mechanical Properties of Simulated HAZs in A508 and A533 Steels""; ""Conclusion""; ""References""; ""History and Evolution of Fusion Power Plant Studies: Past, Present, and Future Prospects""; ""Abstract""; ""1. Introduction""; ""2. Mission and Main Features of Fusion Power Plants""; ""3. Magnetic Fusion Concepts""; ""4. Fusion Roadmaps and Timeline of Fusion Power""; ""5. Conclusion""; ""Acknowledgments""; ""References""; "Optimization of Configuration under Dominant Electron Heating in Tokamaks""; ""Abstract""; ""1. Introduction"" ""2. LH Wave Absorption by Landau Damping""