

1. Record Nr.	UNISA996472061103316
Titolo	Neutron imaging : basics, techniques and applications / / edited by Dinesh K. Aswal, Partha S. Sarkar, and Yogesh S. Kashyap
Pubbl/distr/stampa	Gateway East, Singapore : , : Springer, , [2022] ©2022
ISBN	981-16-6273-8
Descrizione fisica	xvi, 360 pages
Disciplina	539.7213
Soggetti	Neutron radiography Neutrons fundamental particle optics physical sciences technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	"This book comprehensively presents the concepts of neutron physics and imaging including neutron properties, neutron matter interaction, neutron imaging, comparison with X-ray and physics and design of neutron sources. It discusses how neutron imaging has gained importance as a powerful non-destructive technique to understand the internal structures of materials/engineered components in wide range of industries by increasing their applicability and efficiency. The book also covers the topics of neutron optics and detectors, basic principles of neutron radiography and tomography, related standards, safety, metrology and regulations in neutron imaging. The book presents applications of neutron imaging in the areas of aerospace industry, nuclear power and manufacturing industry, materials science and engineering, geomechanics, national security, biological, and medical domain. Given its scope, the book will be highly beneficial for postgraduate students, researchers and industry professionals working in the area of engineering and physics, especially non-destructive

testing and non-destructive evaluation through neutron imaging."--
Publisher.
