1. Record Nr. UNINA9910805581203321

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Titolo	Magnetoelastic Acoustic Emission : Theory and Applications in Ferromagnetic Materials / / by Valentyn Skalskyi, Zinoviy Nazarchuk
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9940-32-X
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (356 pages)
Collana	Springer-AAS Acoustics Series, , 2948-2070
Disciplina	620.17
Soggetti	Acoustics Acoustical engineering Materials - Analysis Magnetism Manufactures Engineering Acoustics Characterization and Analytical Technique Machines, Tools, Processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Some Concepts on Remagnetization of Ferromagnets -- Barkhausen Effect and Emission of Elastic Waves Under Remagnetization of Ferromagnet -- Models of MAE and Interaction of Magnetic Field with Cracks -- Models of Hydrogen Cracks Initiation as Sources of Elastic Waves Emission -- Estimation of Hydrogen Effect on Metals Fracture -- Determination of Magnetic Ductility and Residual Magnetization of Steels -- Methodology of Investigation the Hydrogen Influence on Ferromagnet -- Mathematical Models of MAE Signal and its Informative Parameters -- Evaluation of Electrolytically Absorbed Hydrogen by MAE Parameters.
Sommario/riassunto	The book presents theoretical and experimental studies to establish the relationship between volume jumps of the 90° domain wall in a ferromagnetic material and the magnitude of the half-space surface displacement caused by it. A method of evaluating the influence of the external magnetic field on the stress intensity factor at the tip of the crack-like defects in ferromagnets is discussed. The influence of

hydrogen on the generation of magneto-elastic acoustic emission signals of ferromagnets is described. The features of magneto-elastic acoustic emission due to the presence of plastic deformation, structural changes, and volumetric damage in such structural materials are shown.