1. Record Nr. UNINA9910821360603321 Autore Agarwala R. P (Rajendra P.) Titolo Radiation damage in some refractory metals // R.P. Agarwala Uetikon-Zuerich, Switzerland;; Enfield, New Hampshire:,: Trans Tech Pubbl/distr/stampa Publications, , [2005] ©2005 3-03813-041-9 **ISBN** Descrizione fisica 1 online resource (66 p.) Materials science foundations, , 1422-3597;; volume 25 Collana Disciplina 620.1/628 Soggetti Materials - Effect of radiation on Metals - Effect of radiation on Heat resistant alloys Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "P.R. [i.e.] R.P. Agarwala."--Cover. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Radiation Damage in Some Refractory Metals: Table of Contents: Preface; Acknowledgement; Bio-Data of Editor; Table of Contents; Radiation Damage in Some Refractory Metals; a. Neutron Irradiated Recovery in V-2% Zr Alloy; B. Oxygen Interaction in Irradiated Dilute Vanadiumalloys; a. Helium Ion Damage in Vanadium-2% Zirconium Alloys; b. Recovery of Helium Ion Irradiated Molybdenum; Surface Ion Damage of Refractory Coatings; i) Carbon Coatings; ii) Titanium Carbide Coatings; iii) Effect of Deuterium Ion Bombardment on Boron Coatings. iv) Deuterium Ion Bombardment Behaviour of **Aluminacoatings** v) Aluminium Oxy-Nitride CoatingsRecovery of Fast Neutron Irradiation of A-203 Steel: Study of Swelling of Vanadium on High Neutron Irradiation: Authors Index In Chapter-1 of this timely book, radiation damage in vanadium. Sommario/riassunto niobium, molybdenum and tungsten is discussed at the atomic level; treating - for instance - third-stage recovery in terms of selfinterstitials being mobile traps for - predominantly - vacancies. Higher recovery stages are treated by using various techniques, such as: electrical resistivity, electron microscopy, positron annihilation

spectroscopy and computer simulation - thus revealing vacancy-cluster

break-up in stage-V and interstitial cluster annealing in stage-VI. Overall, these and other results are presented in 6 chapters: