

1. Record Nr.	UNINA9910815582703321
Titolo	Defects and diffusion studied using PAC spectroscopy // edited by Herbert Jaeger, Matthew O. Zacate
Pubbl/distr/stampa	Zurich-Durnten, Switzerland : , : Trans Tech Publications, , [2011] ©2011
ISBN	3-03813-516-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (185 p.)
Collana	Defect and diffusion forum, , 1012-0386 ; ; v. 311
Altri autori (Persone)	JaegerHerbert ZacateMatthew O
Disciplina	660.294
Soggetti	Solids - Defects Diffusion Angular correlations (Nuclear physics) Perturbation (Quantum dynamics)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Special topic volume with invited peer reviewed papers only."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Defects and Diffusion Studied Using PAC Spectroscopy; Preface; Table of Contents; 1. Review Articles; Perturbed Angular Correlation Spectroscopy - A Tool for the Study of Defects and Diffusion at the Atomic Scale; Impurities in Magnetic Materials Studied by PAC Spectroscopy; Impurity Centers in Oxides Investigated by - Perturbed Angular Correlation Spectroscopy and Ab Initio Calculations; Can PAC Measurements be Used to Investigate Defects in Nano-Structures?; 2. Current Research Articles TiO <sub>2</sub> Nanomaterials Studied by <sup>44</sup> Ti( <sup>EC</sup> ) <sup>44</sup> Sc Time Differential Perturbed Angular Correlations: Volume and Surface Properties Comparison of Jump Frequencies of <sup>111</sup> In/ <sup>109</sup> Cd Tracer Atoms in Sn <sub>3</sub> R and In <sub>3</sub> R Phases Having the L <sub>12</sub> Structure (R = Rare-Earth); Implanted Impurities in Wide Band Gap Semiconductors; Keywords Index; Authors Index
Sommario/riassunto	The motivation for this special-topic volume was two-fold. Among the various techniques for probing material properties at the atomic scale, PAC is a somewhat hidden gem. This is partly because PAC requires the use of radioisotopes; thus rendering it almost useless as a non-

destructive characterization method. Moreover, there are relatively few PAC isotopes available; so it is not always possible to apply PAC to the most technologically pressing problems. Thus, PAC studies of materials are often more fundamental, and less applied, in nature. One of the goals of this volume was to raise the pro

---