

1. Record Nr.	UNINA9910437922003321
Titolo	Effective properties of heterogeneous materials / / Mark Kachanov, Igor Sevostianov, editors
Pubbl/distr/stampa	Dordrecht ; ; New York, : Springer, c2013
ISBN	9789400757158 9400757158
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (392 p.)
Collana	Solid mechanics and its applications, , 0925-0042 ; ; v. 193
Altri autori (Persone)	KachanovMark SevostianovIgor
Disciplina	620.1 620.11
Soggetti	Inhomogeneous materials Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	1 Non-interaction approximation in the problem of effective properties -- 2 Multipole expansion method in micromechanics of composites.- 3 Effective field method in the theory of heterogeneous media.- 4 Effective properties of composite materials, reinforced structures and smart composites: Asymptotic homogenization approach -- 5 Basic microstructure-macroproperty calculations.
Sommario/riassunto	The book contains state-of the-art reviews in the area of effective properties of heterogeneous materials - the classical field at interface of materials science and solid mechanics. The primary focus is on thermo-mechanical properties, materials science applications, as well as computational aspects and new opportunities provided by rapidly increasing computer powers. The reviews are at the level that is appropriate for a substantial community of researchers working in this field, both at universities and in the industry, and to graduate students. The book can be used as supplementary reading to graduate level courses.