Preface

The problem of the overall, or effective, properties of heterogeneous materials is a classical one that started to attract attention in the first half of the nineteenth century, in works of Poisson and Faraday. In the last half-a-century, the field has experienced rapid growth, due to several factors. One of them relates to growing needs of materials science, due to appearance of new materials such as composites, as well as the necessity to model naturally occurring heterogeneous materials such as rocks. Another one was the development of continuum mechanics foundation of the field that started with works of Hill and Eshelby. Computational micromechanics, fueled by increasing computer powers, emerged as a separate field, and has experienced rapid advance in the last two decades.

The present book contains five state-of-the-art reviews on the analytical and computational aspects of the problem.

http://www.springer.com/978-94-007-5714-1

Effective Properties of Heterogeneous Materials
Kachanov, M.; Sevostianov, I. (Eds.)
2013, VII, 389 p., Hardcover
ISBN: 978-94-007-5714-1