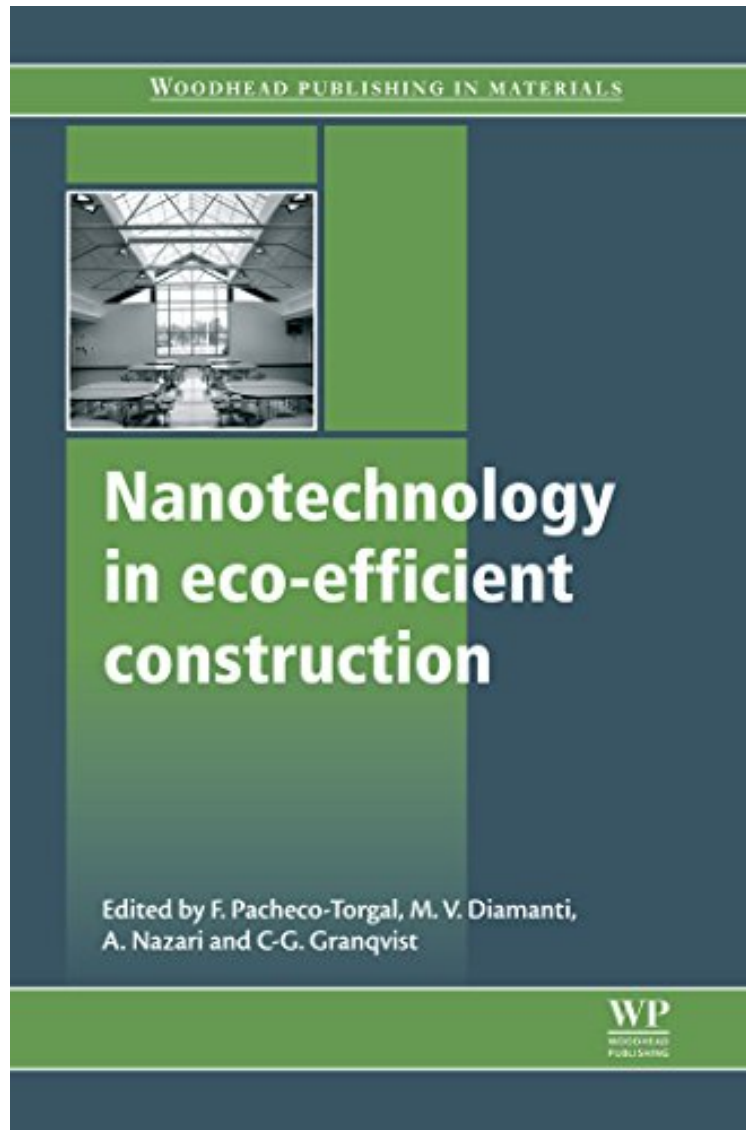


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From Woodhead Publishing : Nanotechnology in Eco-Efficient Construction: Materials, Processes and Applications (Woodhead Publishing Series in Civil and Structural Engineering) before purchasing it in order to gage whether or not it would be worth my time, and all praised Nanotechnology in Eco-Efficient Construction:

As the environmental impact of existing construction and building materials comes under increasing scrutiny, the search for more eco-efficient solutions has intensified. Nanotechnology offers great potential in this area and is already being widely used to great success. Nanotechnology in eco-efficient construction is an authoritative guide to the role of nanotechnology in the development of eco-efficient construction materials and sustainable construction. Following an introduction to the use of nanotechnology in eco-efficient construction materials, part one considers such infrastructural applications as nanoengineered cement-based materials, nanoparticles for high-performance and self-sensing concrete, and the use of nanotechnology to improve the bulk and surface properties of steel for structural applications. Nanoclay-modified asphalt mixtures and safety issues relating to nanomaterials for construction applications are also reviewed before part two goes on to discuss applications for building energy efficiency. Topics explored include thin films and nanostructured coatings, switchable glazing technology and third generation photovoltaic (PV) cells, high-performance thermal insulation materials, and silica nanogel for energy-efficient windows. Finally, photocatalytic applications are the focus of part three, which investigates nanoparticles for pollution control, self-cleaning and photosterilisation, and the role of nanotechnology in manufacturing paints and purifying water for eco-efficient buildings. Nanotechnology in eco-efficient construction is a technical guide for all those involved in the design, production and application of eco-efficient construction materials, including civil engineers, materials scientists, researchers and architects within any field of nanotechnology, eco-efficient materials or the construction industry. Provides an authoritative guide to the role of nanotechnology in the development of eco-efficient construction materials and sustainable construction Examines the use of nanotechnology in eco-efficient construction materials Considers a range of important infrastructural applications, before discussing applications for building energy efficiency

"The book's focus on eco-construction, its depth of coverage, and style of writing by various contributing authors makes it understandable by readers at various levels. Researchers, educators, captains of industry, and policy makers would find the book interesting and useful."--MaterialsViews.com, April 8, 2014 About the Author Fernando Pacheco-Torgal is a Senior Researcher in the C-TAC Research Centre at the University of Minho, Portugal. He has authored almost 300 publications, including 96 in ISI Web of Science-WoS and 92 on Scopus. Having received 798 citations in WoS (h-index=15) and 1125 citations on Scopus (h-index=18). He has a SCI Platinum h=30 the highest in the field of civil engineering in Portugal. He has also been the Lead Editor of 14 international books, with more than 500 contributors from 52 countries in the five continents. Maria Vittoria Diamanti is Assistant Professor in the Department of Chemistry, Materials and Chemical Engineering at the Polytechnic of Milan, Italy. Ali Nazari is an Assistant Professor in the Islamic Azad University, Iran. He has written 6 books and 140 journal articles as well as registering over 20 national patents. Claes Goran-Granqvist is Professor in the Department of Engineering Science at Uppsala University, Sweden.