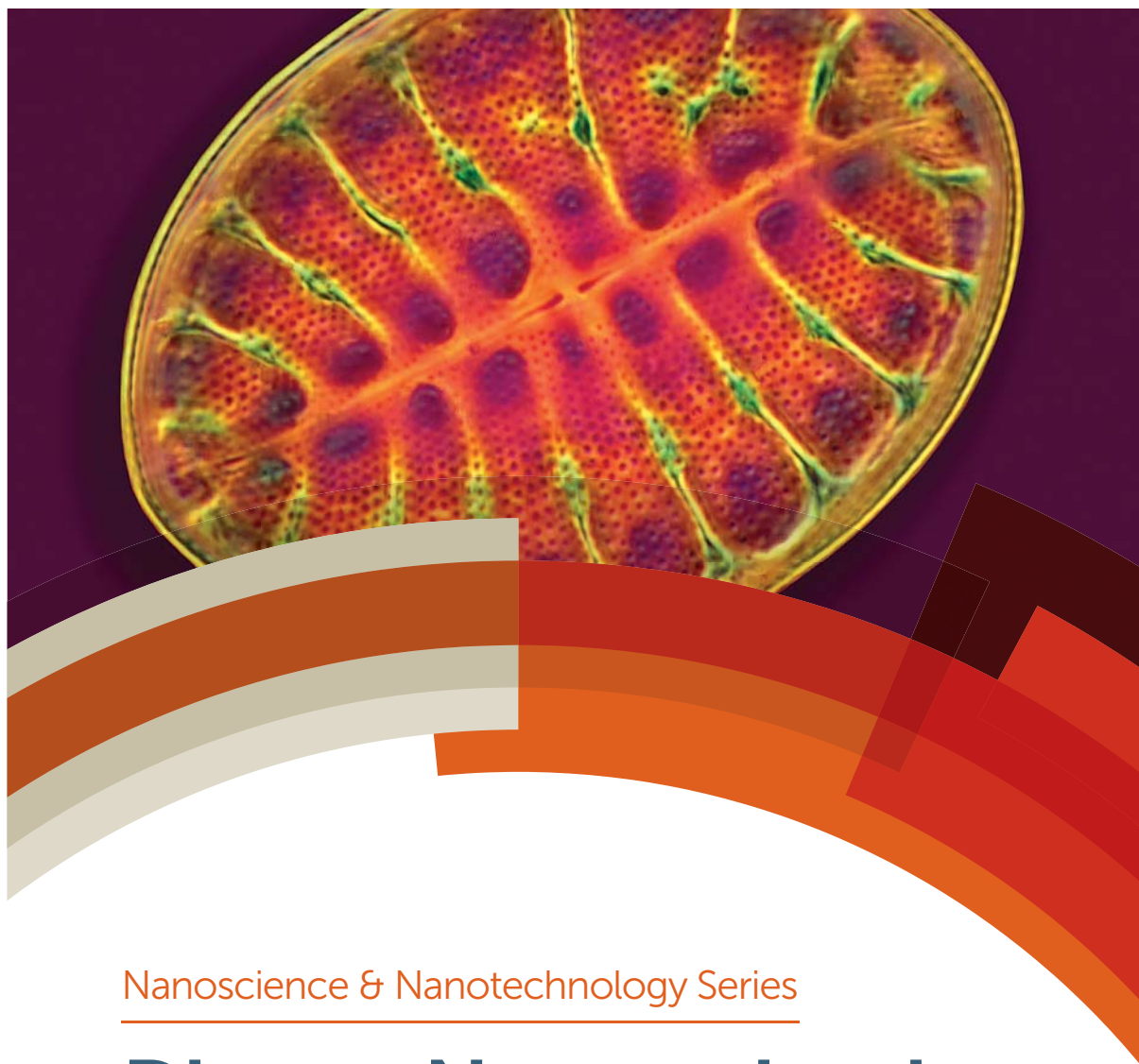




Nanoscience & Nanotechnology Series

Diatom Nanotechnology

Progress and Emerging Applications

Edited by Dusan Losic



CHAPTER 3

Nanoengineering of Diatom Surfaces for Emerging Applications

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3.1 Introduction

Diatoms form a large group of unicellular microalgae that contribute up to 25% of the primary production on Earth.^{1,2} The three-dimensional exterior shells (frustules) of diatoms are made of silica, which can be used for various nanoengineered products or templates at microscale down to nanoscale dimensions. The silica shells (frustules) of diatoms can be looked upon as

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