Modelling the Toxicity of Nanoparticles [

Tran, Lang,
ed. lit
Bañares, Miguel A,
ed. lit
Rallo, Robert,
ed. lit

Springer International Publishing,
2017

Toxicology | Nanotechnology | Biological models | Pharmacology/Toxicology | Systems Biology

Monografía

In todays nanotechnology and pharmaceutical research, alternative toxicology testing methods are crucial for ethically and commercially sound practice. This book provides practical guidelines on how to develop and validate quantitative nanostructure-toxicity relationship (QNTR) models, which are ideal for rapidly exploring the effects of a large number of variables in complex scenarios. Through contributions by academic, industrial, and governmental experts, Modelling the Toxicity of Nanoparticles delivers clear instruction on these methods and their integration and use in risk assessment. Specific topics include the physico-chemical characteristics of engineered nanoparticles, nanoparticle interactions, in vivo nanoparticle processing, and more. A much-needed practical guide, Modelling the Toxicity of Nanoparticles is a key text for researchers as well as government and industry regulators

Título: Modelling the Toxicity of Nanoparticles Recurso electrónico] edited by Lang Tran, Miguel A. Bañares, Robert Rallo

Editorial: Cham Springer International Publishing Imprint: Springer 2017

Editorial: Cham Springer International Publishing 2017

Descripción física: XVII, 352 p. 102 il., 83 il. col

Mención de serie: Advances in Experimental Medicine and Biology 947

Contenido: Engineered Nanoparticles Their physico-chemical characteristics and how to measure them -- Measurement -- The Life-Cycle of Engineered Nanoparticles -- From Dose to Response In vivo Nanoparticle Processing and Potential Toxicity -- From Dose to Response Literature review od (Q)SAR Modelling of Nanomaterial Toxicity -- Systems biology to support nanomaterial grouping -- Multiscale modelling of bionano

interface -- Biological Surface Adsorption Index of Nanomaterials - Modeling Surface Interactions of Nanomaterials with Biomolecules -- Case study I - An integrated data-driven strategy for safe-by-design nanoparticles: The FP7 MODERN Project -- Case study II - Compilation of Data and Modeling of Nanoparticle Interactions and Toxicity and in the European NanoPUZZLES Project -- Case study III The construction of a nanotoxicity database: the MOD-ENP-TOX experience

ISBN: 9783319477541 9783319477527 9783319477534 9783319838144

Materia: Toxicology Nanotechnology Biological models Pharmacology/Toxicology. Nanotechnology. Systems Biology.

Autores: Tran, Lang, ed. lit Bañares, Miguel A, ed. lit Rallo, Robert, ed. lit

Enlace a formato físico adicional: 3-319-47752-8

Punto acceso adicional serie-Título: Advances in Experimental Medicine and Biology 947

Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es