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Nota di contenuto	1 The role of in vivo screening studies in assessing manufactured nanomaterials -- Part 1 Short Term Inhalation Study -- 2. The short-term inhalation study (STIS) as a range finder and screening tool in a tiered grouping strategy -- 3. Use of short-term inhalation study to obtain initial hazard data and prepare for subacute and subchronic inhalation studies, and toxicokinetic studies -- 4. Subchronic inhalation Toxicity Study with a Vapor Grown Carbon Nanofiber in Male and Female Rats (OECD 413) – Does nanofiber exposure have adverse impacts on the cardiovascular system? -- Part 2 Intratracheal Administration Study -- 5. Comparison of responses in rat lung following inhalation and intratracheal administration of nanoparticles -- 6. Standardization of intratracheal instillation study of manufactured nanomaterials -- 7. Sample preparation and the chracterization for Intratracheal Administration -- 8. Development of intra-tracheal intra-pulmonary spraying (TIPS) as an alternative assay method for testing chronic toxicity and carcinogenic potential of multiwall carbon

nanotubes -- 9. Equivalence Criteria for Nanomaterials Developed from Results of a Comparative Study using Intratracheal Administration -- 10. Toxicokinetics of nano materials after the intratracheal administration -- 11. In Vitro Alveolar Epithelial Models toward the Prediction of Cytotoxicity Tests and Translocation Studies of Nanoparticles. .

Sommario/riassunto

This edited volume discusses the short-term inhalation study (STIS) and intratracheal administration, the two major in vivo inhalation-toxicity screening methods, which play an important role in efficient hazard evaluation. It also provides a general overview of the inhalation toxicity of nanomaterials and related issues. For each screening method, it provides up-to-date information on the test procedures, interpretation of the test results, useful applications, and related technologies. In view of the increasing variety of nanomaterials in practical use, the book offers a basis for building a framework for grouping and read-across assessments of nanomaterials. With contributions by academic and industrial experts, In vivo Inhalation Toxicity Screening Methods for Manufactured Nanomaterials is a pragmatic reference resource for readers who are responsible for assessing the safety of nanomaterials in R&D and business, as well as researchers.