1. Record Nr. UNINA9910136268503321 IEC/IEEE 62659 Edition 1.0 2015-09 : IEC/IEEE International Standard -**Titolo** nanomanufacturing -- large scale manufacturing for nanoelectronics / / Institute of Electrical and Electronics Engineers Piscataway, New Jersey:,: IEEE,, 2015 Pubbl/distr/stampa **ISBN** 0-7381-9997-4 Descrizione fisica 1 online resource (16 pages) Disciplina 620.5 Nanomanufacturing Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia This International Standard provides a framework for introducing Sommario/riassunto nanoelectronics into large scale, high volume production in semiconductor manufacturing facilities through the incorporation of nanomaterials (e.g. carbon nanotubes, graphene, quantum dots, etc.). Since semiconductor manufacturing facilities need to incorporate practices that maintain high yields, there are very strict requirements for how manufacturing is performed. Nanomaterials represent a potential contaminant in semiconductor manufacturing facilities and need to be introduced in a structured and methodical way. This International Standard provides steps employed to facilitate the introduction of nanomaterials into the semiconductor manufacturing facilities. This sequence is described below under the areas of raw materials acquisition, materials processing, design, IC fabrication, testing, and end-use. These activities represent the major stages of the supply chain in semiconductor manufacturing facilities.