Record Nr. UNINA9910143572803321 Autore Welker R. W. Titolo Contamination and ESD control in high technology manufacturing / / Roger W. Welker, R. Nagarajan, Carl E. Newberg Pubbl/distr/stampa Hoboken, New Jersey: ,: John Wiley & Sons, , c2006 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2006] **ISBN** 1-280-54978-5 9786610549788 0-470-00778-8 0-470-00777-X Descrizione fisica 1 online resource (516 p.) Altri autori (Persone) NagarajanR (Ramamurthy) NewbergCarl E Disciplina 621.381 670.42 Soggetti Electronic apparatus and appliances - Protection Electric discharges **Electrostatics** Contamination (Technology) Clean rooms Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Fundamentals of contamination control -- Fundamentals of ESD control -- Sampling and analysis methods -- Facilities design : contaminationand ESD-safe work areas -- Getting clean parts and getting parts clean -- Tooling design and certification -- Continuous monitoring --Consumable supplies and packaging materials -- Controlling contamination and ESD from people -- Layout of change rooms --Procedures and documentation. A practical "how to" guide that effectively deals with the control of both Sommario/riassunto contamination and ESD This book offers effective strategies and techniques for contamination and electrostatic discharge (ESD) control that can be implemented in a wide range of high-technology industries.

including semiconductor, disk drive, aerospace, pharmaceutical,

medical device, automobile, and food production manufacturing. The authors set forth a new and innovative methodology that can manage both contamination and ESD, often considered to be mutually exclusive challenges requiring distinct strategies. Beginning with two general chapters on the fundamentals of contamination and ESD control, the book presents a logical progression of topics that collectively build the necessary skills and knowledge: . Analysis methods for solving contamination and ESD problems. Building the contamination and ESD control environment, including design and construction of cleanrooms and ESD protected environments. Cleaning processes and the equipment needed to support these processes. Tooling design and certification. Continuous monitoring. Consumable supplies and packaging materials. Controlling contamination and ESD originating from people. Management of cleanrooms and ESD protected workplace environments Contamination and ESD Control in High-Technology Manufacturing conveys a practical, working knowledge of contamination and ESD control strategies and techniques, and it is filled with case studies that illustrate key principles and the benefits of contamination and ESD control. Moreover, its straightforward style makes the material, which integrates many disciplines of engineering and science, clear and accessible. Written by three leading industry experts, this book is an essential guide for engineers and designers across the many industries where contamination and ESD control is a concern.