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Nota di contenuto	Contents; Preface; Mapping of surface contaminants by tunable infrared-laser imaging; Monitoring cleanliness and defining acceptable cleanliness levels; Tracking surface ionic contamination by ion chromatography; A new method using MESERAN technique for measuring surface contamination after solvent extraction; Methods for pharmaceutical cleaning validations; Influence of cleaning on the surface of model glasses and their sensitivity to organic contamination; Decontamination of sensitive equipment; The fundamentals of no-chemistry process cleaning Development of a technology for generation of ice particlesCleaning with solid carbon dioxide pellet blasting; Development of a generic procedure for modeling of waterjet cleaning; Experimental and numerical investigation of waterjet derusting technology; Practical applications of icejet technology in surface processing; Correlating cleanliness to electrical performance; Qualifying a cleaning system for space flight printed wiring assemblies; Investigation of modified SC-1 solutions for silicon wafer cleaning Performance qualification of post-CMP cleaning equipment in a

semiconductor fabrication environmentSpatial and temporal scales in wet processing of deep submicrometer features; Microdenier fabrics for cleanroom wipers; Fine particle detachment studied by reflectometry and atomic force microscopy; Dust removal from solar panels and spacecraft on Mars; Laser cleaning of silicon wafers: Prospects and problems; Particle removal using resonant laser detachment; The future of industrial cleaning and related public policy-making

Sommario/riassunto

This volume documents the proceedings of the International Symposium on Surface Contamination and Cleaning, held in Newark, New Jersey, May 23-25, 2001. A new method using MESERAN technique for measuring surface contamination after solvent extractionB. NewtonBecause of the importance of this topic in many technological areas, tremendous efforts have been devoted to devise novel and more efficient ways to monitor, analyse and characterize contamination on surfaces as well as ways to remove such contamination from a wide variety of surfaces. The technological areas where surface contamination has always been a bete noir and thus surface cleaning is of cardinal importance are too many and range from aerospace to microelectronics to biomedical. C. Beaudry and S. VerhaverbekeC. LeBlancCleaning with solid carbon dioxide pellet blastingCorrelating cleanliness to electrical performanceD. Ottesen, S. Sickafoose, H. Johnsen, T. Kulp, K. Armstrong, S. Allendorf and T. HoffardD.V. Shishkin, E.S. Geskin and B. GoldenbergD.V. Shishkin, E.S. Geskin and B. GoldenbergDecontamination of sensitive equipmentDevelopment of a technology for generation of ice particlesDevelopment of a generic procedure for modeling of waterjet cleaningDust removal from solar panels and spacecraft on MarsExperimental and numerical investigation of waterjet derusting technologyF.C. YoungFeiler and J. RalstonFine particle detachment studied by reflectometry and atomic force microscopyH.J. KaiserInfluence of cleaning on the surface of model glasses and their sensitivity to organic contaminationInvestigation of modified SC-1 solutions for silicon wafer cleaningJ. Skoufis and D.W. CooperJ.B. Durkee IIJ.K. Kirk Bonner and A. MehtaK. Babets and E.S. GeskinK. Babets, E.S. Geskin and B. GoldenbergK. Kearney and P. HammondLaser cleaning of silicon wafers: Prospects and problemsM. Mosbacher, V. Dobler, M. Bertsch, H.-J. Mnzer, J. Boneberg and P. LeidererM. OlimM.G. Benkovich and J.L. AndersonM.K. ChawlaM.T. AndreasMapping of surface contaminants by tunable infrared-laser imagingMethods for pharmaceutical cleaning validationsMicrodenier fabrics for cleanroom wipersMonitoring cleanliness and defining acceptable cleanliness levelsParticle removal using resonant laser detachmentPerformance qualification of post-CMP cleaning equipment in a semiconductor fabrication environmentPractical applications of icejet technology in surface processingQualifying a cleaning system for space flight printed wiring assembliesR. Kaiser and K. HaraldsenS. Trigwell, M.K. Mazumder, A.S. Biris, S. Anderson and C.U. YurteriSpatial and temporal scales in wet processing of deep submicrometer featuresT. MunsonThe fundamentals of no-chemistry process cleaningThe future of industrial cleaning and related public policy-makingThis volume contains a total of 24 papers, all rigorously peer reviewed and revised before inclusion, which deal with all kinds of contaminations on a host of surfaces. The topics covered include: mapping of surface contaminants; various techniques for cleaning surfaces; various techniques for monitoring level of cleanliness; acceptable cleanliness levels; ionic contamination; pharmaceutical cleaning validations; cleaning of glass surfaces; decontamination of sensitive equipment; no-chemistry process cleaning; waterjet cleaning; cleaning with solid carbon dioxide pellet blasting; cleanroom wipers;

dust removal from solar panels and spacecraft on Mars; laser cleaning of silicon surfaces; particle removal; implications of surface contamination and cleaning; and future of industrial cleaning and related public policy-making. Tracking surface ionic contamination by ion chromatography W. Birch, S. Mechken and A. Carr.
