1. Record Nr. UNINA9910583066503321

Autore Thomas Dominique (Engineer)

Titolo Aerosol filtration / / Dominique Thomas [and three others]

Pubbl/distr/stampa London, England ; ; Oxford, England : , : iSTE Press : , : Elsevier, , 2017
©2017

ISBN 0-08-102116-X

Descrizione fisica 1 online resource (228 pages) : illustrations

Disciplina 660.284245

Soggetti Filters and filtration
Aerosols

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di bibliografia Includes bibliographical references at the end of each chapters and index.

Nota di contenuto 1. An Introduction to Aerosols; 1.1. Characteristics of a gaseous medium; 1.2. Inertial parameters; 1.3. Diffusional parameter; 1.4. Equivalent diameter; 1.5. Nanostructured particles; 1.6. Bibliography; 2 Fibrous Media; 2.1. Introduction; 2.2. Manufacturing processes for non-woven media; 2.3. Developing "high-performing" fibers; 2.4. Characterization of fibrous media; 2.5. From web to filter; 2.6. Bibliography; 3 Initial Pressure Drop for Fibrous Media; 3.1. Pressure drop across a flat media; 3.2. Pressure drop for pleated fibrous media3. 3. Bibliography; 4 Initial Pressure Efficiency of a Fibrous Media; 4.1. Introduction; 4.2. Estimating efficiency; 4.3. Single fiber efficiency; 4.4. Overall filter efficiency; 4.5. Conclusion; 4.6. Bibliography; 5 Filtration of Solid Aerosols; 5.1. Overview; 5.2. Depth filtration; 5.3. Transition zone between depth filtration and surface filtration; 5.4. Surface filtration; 5.5. Reduction in filtration area; 5.6. Full models; 5.7. Influence of humidity in the air; 5.8. Bibliography; 6 Filtration of Liquid Aerosols; 6.1. Overview; 6.2. Clogging by liquid aerosols6.3. Clogging models; 6.4. Binary mixture of liquid and solid aerosols; 6.5. Conclusion.