

1. Record Nr.	UNINA9910480613403321
Autore	Cirstea Florica C. <1976->
Titolo	A complete classification of the isolated singularities for nonlinear elliptic equations with inverse square potentials // Florica C. Cirstea
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , 2013 ©2013
ISBN	1-4704-1429-5
Descrizione fisica	1 online resource (97 p.)
Collana	Memoirs of the American Mathematical Society, , 1947-6221 ; ; Volume 227, Number 1068
Disciplina	515/.3533
Soggetti	Differential equations, Elliptic Differential equations, Partial Singularities (Mathematics) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Volume 227, Number 1068 (fourth of 4 numbers)."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	""Chapter 5. The analysis for the subcritical parameter""""5.1. Proof of Theorem 2.1""; ""5.2. Proof of Theorem 2.2""; ""5.3. Proof of Theorem 2.3""; ""5.4. Proof of Theorem 2.4""; ""Chapter 6. The analysis for the critical parameter""; ""6.1. Proof of Theorem 2.5""; ""6.2. Proof of Theorem 2.6""; ""6.3. Proof of Theorem 2.7""; ""Chapter 7. Illustration of our results""; ""7.1. On a prototype model""; ""7.2. In other settings""; ""Appendix A. Regular variation theory and related results""; ""A.1. Properties of regularly varying functions""; ""A.2. Other results""; ""Bibliography""

2. Record Nr.	UNINA9911019996503321
Autore	Yang R. T
Titolo	Adsorbents : fundamentals and applications // Ralph T. Yang
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2003
ISBN	9786610367115 9781280367113 1280367113 9780470231173 0470231173 9780471462415 0471462411 9780471444091 047144409X
Descrizione fisica	1 online resource (424 p.)
Disciplina	660/.284235
Soggetti	Adsorption
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 indexes.
Nota di contenuto	ADSORBENTS; CONTENTS; Preface; 1 Introductory Remarks; 1.1. Equilibrium Separation and Kinetic Separation; 1.2. Commercial Sorbents and Applications; 1.3. New Sorbents and Future Applications; References; 2 Fundamental Factors for Designing Adsorbent; 2.1. Potential Energies for Adsorption; 2.2. Heat of Adsorption; 2.3. Effects of Adsorbate Properties on Adsorption: Polarizability (a), Dipole Moment (m), and Quadrupole Moment (Q); 2.4. Basic Considerations for Sorbent Design; 2.4.1. Polarizability (a), Electronic Charge (q), and van der Waals Radius (r); 2.4.2. Pore Size and Geometry References 3 Sorbent Selection: Equilibrium Isotherms, Diffusion, Cyclic Processes, and Sorbent Selection Criteria; 3.1. Equilibrium Isotherms and Diffusion; 3.1.1. Langmuir Isotherms for Single and Mixed Gases; 3.1.2. Potential Theory Isotherms for Single and Mixed Gases; 3.1.3. Ideal Adsorbed Solution Theory for Mixture and Similarities with Langmuir and Potential Theories; 3.1.4. Diffusion in Micropores:

Concentration Dependence and Predicting Mixed Diffusivities; 3.2. Temperature Swing Adsorption and Pressure Swing Adsorption; 3.2.1. Temperature Swing Adsorption  
3.2.2. Pressure Swing Adsorption  
3.3. Simple Criteria for Sorbent Selection; References; 4 Pore Size Distribution; 4.1. The Kelvin Equation; 4.2. Horvath-Kawazoe Approach; 4.2.1. The Original HK Slit-Shaped Pore Model; 4.2.2. Modified HK Model for Slit-Shaped Pores; 4.2.3. Modified Model for Cylindrical Pores; 4.3. The Integral Equation Approach; References; 5 Activated Carbon; 5.1. Formation and Manufacture of Activated Carbon; 5.2. Pore Structure and Standard Tests for Activated Carbon; 5.3. General Adsorption Properties; 5.4. Surface Chemistry and Its Effects on Adsorption  
5.4.1. Effects of Surface Functionalities on Gas Adsorption  
5.5. Adsorption from Solution and Effects of Surface Functionalities; 5.5.1. Adsorption from Dilute Solution (Particularly Phenols); 5.5.2. Effects of Surface Functionalities on Adsorption; 5.6. Activated Carbon Fibers; 5.6.1. Adsorption Isotherms; 5.7. Carbon Molecular Sieves; 5.7.1. Carbon Deposition Step; 5.7.2. Kinetic Separation: Isotherms and Diffusivities; 5.7.3. Carbon Molecular Sieve Membranes; References; 6 Silica Gel, MCM, and Activated Alumina; 6.1. Silica Gels: Preparation and General Properties  
6.2. Surface Chemistry of Silicas: The Silanol Groups  
6.3. The Silanol Number ( $\text{OH}/\text{nm}^{-1}$ ); 6.4. MCM-41; 6.5. Chemical Modification of Silicas and Molecular Imprinting; 6.6. Activated Alumina; 6.7. Activated Alumina as Special Sorbents; References; 7 Zeolites and Molecular Sieves; 7.1. Zeolite Types A, X, and Y; 7.1.1. Structure and Cation Sites of Type A Zeolite; 7.1.2. Structure and Cation Sites of Types X and Y Zeolites; 7.1.3. Examples of Molecular Sieving; 7.2. Zeolites and Molecular Sieves: Synthesis and Molecular Sieving Properties; 7.2.1. Synthesis of Zeolites A, X, and Y  
7.2.2. Organic Additives (Templates) in Synthesis of Zeolites and Molecular Sieves

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## Sommario/riassunto

Adsorption promises to play an integral role in several future energy and environmental technologies, including hydrogen storage, CO removal for fuel cell technology, desulfurization of transportation fuels, and technologies for meeting higher standards on air and water pollutants. Ralph Yang's *Adsorbents* provides a single and comprehensive source of knowledge for all commercial and new sorbent materials, presenting the fundamental principles for their syntheses, their adsorption properties, and their present and potential applications for separation and purification. Chapter topics in this au

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