1. Record Nr. UNINA9910709756503321

Autore	Graybeal Benjamin A.
Titolo	Structural behavior of ultra-high performance concrete prestressed I-girders / / Benjamin A. Graybeal
Pubbl/distr/stampa	McLean, VA : , : U.S. Department of Transportation, Federal Highway Administration, Office of Research, Development, and Technology, Turner-Fairbank Highway Research Center, , August 2006
Descrizione fisica	1 online resource (vii, 96 pages) : illustrations
Soggetti	Prestressed concrete beams - Testing High strength concrete - Testing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"September 2006." Publication no. FHWA-HRT-06-115." "Performing organization: PSI, Inc."--Report documentation page. "Sponsored by Office of Infrastructure Research and Development, Federal Highway Administration"--Report documentation page. Includes tables.
Nota di bibliografia	Includes bibliographical references (pages 95-96).

2.

Record Nr.	UNINA9910969955803321
Autore	Markos Peter
Titolo	Wave propagation : from electrons to photonic crystals and left-handed materials / / Peter Markos, Costa M. Soukoulis
Pubbl/distr/stampa	Princeton, : Princeton University Press, 2008
ISBN	9786612531774 9781680159011 1680159011 9781282531772 1282531778 9781400835676 1400835674
Edizione	[Course Book]
Descrizione fisica	1 online resource (367 p.)
Altri autori (Persone)	SoukoulisC. M
Disciplina	530.14/1 530.141 621.38131
Soggetti	Electric waves Electromagnetic waves - Mathematics Matrices Wave-motion, Theory of
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	Frontmatter -- Contents -- Preface -- 1 Transfer Matrix -- 2 Rectangular Potentials -- 3 -Function Potential -- 4 Kronig-Penney Model -- 5 Tight Binding Model -- 6 Tight Binding Models of Crystals -- 7 Disordered Models -- 8 Numerical Solution of the Schrödinger Equation -- 9 Transmission and Reflection of Plane Electromagnetic Waves on an Interface -- 10 Transmission and Reflection Coefficients for a Slab -- 11 Surface Waves -- 12 Resonant Tunneling through Double-Layer Structures -- 13 Layered Electromagnetic Medium: Photonic Crystals -- 14 Effective Parameters -- 15 Wave Propagation in Nonlinear Structures -- 16 Left-Handed Materials -- Appendix A. Matrix Operations -- Appendix B. Summary of Electrodynamics

Formulas -- Bibliography -- Index

Sommario/riassunto

This textbook offers the first unified treatment of wave propagation in electronic and electromagnetic systems and introduces readers to the essentials of the transfer matrix method, a powerful analytical tool that can be used to model and study an array of problems pertaining to wave propagation in electrons and photons. It is aimed at graduate and advanced undergraduate students in physics, materials science, electrical and computer engineering, and mathematics, and is ideal for researchers in photonic crystals, negative index materials, left-handed materials, plasmonics, nonlinear effects, and optics. Peter Markos and Costas Soukoulis begin by establishing the analogy between wave propagation in electronic systems and electromagnetic media and then show how the transfer matrix can be easily applied to any type of wave propagation, such as electromagnetic, acoustic, and elastic waves. The transfer matrix approach of the tight-binding model allows readers to understand its implementation quickly and all the concepts of solid-state physics are clearly introduced. Markos and Soukoulis then build the discussion of such topics as random systems and localized and delocalized modes around the transfer matrix, bringing remarkable clarity to the subject. Total internal reflection, Brewster angles, evanescent waves, surface waves, and resonant tunneling in left-handed materials are introduced and treated in detail, as are important new developments like photonic crystals, negative index materials, and surface plasmons. Problem sets aid students working through the subject for the first time.

3. Record Nr. UNINA9911018937503321

Autore	Smolin Edwin M
Titolo	s-Triazines and derivatives / / Edwin M. Smolin and Lorence Rapoport
Pubbl/distr/stampa	New York, : Interscience Publishers, 1959
ISBN	9786612301476 9781282301474 1282301470 9780470186626 0470186623 9780470188125 047018812X
Descrizione fisica	1 online resource (670 p.)
Collana	The chemistry of heterocyclic compounds ; ; 13
Altri autori (Persone)	RapoportLorence <1919-1999.>
Disciplina	547 547/.59/05
Soggetti	Triazines Heterocyclic compounds
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliography.
Nota di contenuto	s-Triazines and Derivatives; Contents; Introduction; I. General; II. s-Triazine; 1. General; 2. Synthesis; 3. Reactions; A. Salt Formation; B. Hydrolysis; C. Reaction with Hydrogen Chloride; D. Reaction with Amines; E. Reaction with Halogens; F. Reaction with Sodamide; G. Hydrogenation; H. Friedel-Crafts Reaction of s-Triazine and Its Hydrochloride Derivatives; I. Grignard Reaction; I. Cyanuric Acid and Derivatives; I. Introduction; II. Cyanuric Acid; 1. Historical; 2. Physical Properties; A. General; B. Density; C. Thermal Properties; D. Heat of Neutralization; E. Dissociation Constant F. Percentage Dissociated at 35°G. Conductivity; H. Viscosity and Density of Solutions; I. Specific Heat; J. Magnetic Susceptibility; K. Raman, Infrared, and Ultraviolet Spectra; L. Polarographic Behavior; M. Crystallography and Miscellaneous Properties; 3. Synthesis and Occurrence; A. Natural Occurrence; B. From Cyanuric Halides; C. Polymerization of Cyanic Acid; D. From Urea and Urea Derivatives; E.

From Uric Acid; F. From Allophanates and Carbamyl Chlorides; G. From Carbonyl Diurethane and Carbethoxybiuret; H. From Formamide Electrolytically; I. From Acetoxamide
J. From Carbaminothioglycolic Acid AnilideK. Miscellaneous Preparations; 4. Structure; 5. Salts of Cyanuric Acid; 6. Reactions of Cyanuric Acid; A. Hydrolysis; B. Reaction with Active Halogen Compounds; C. Thermal Action; D. Reaction with Ammonia; E. Esterification; F. Acetylation; G. Reaction with Fatty Acids; H. Reaction with -Haloacids; I. Rearrangement .; 7. Applications of Cyanuric Acid; A. Physiological and Technical Significance; B. Melamine Formation; C. Rubber Manufacture; D. Resins; III. Cyanuric Halides; 1. Cyanuric Chloride; A. History; B. Physical Properties
C. Synthetic Methods(1) From Cyanogen Chloride; (2) From Hydrocyanic Acid; (3) From Cyanuric Acid; (4) Miscellaneous Methods; D. Structure; E. Reactions; (1) Hydrolysis and Alcoholysis; (2) Reaction with Hydroxy Compounds; (3) Reaction with Amino Compounds; (4) Reaction with Sulfhydryl Compounds; (5) Reaction with Salts of Hydrazoic Acid; (6) Reaction with Silver Nitrate; (7) Grignard Reaction; (8) Wurtz-Fittig Reaction; (9) Friedel-Crafts Reaction; (10) Reaction with Carboxylic Acids and Salts; (11) Reaction with Malonic Ester; (12) Reaction with Hydriodic Acid; (13) Reduction
(14) Reaction with BenzamideF. Physiological Properties; 2. Cyanuric Bromide; A. Synthesis; (1) Polymerization of Cyanogen Bromide; (2) From Bromine and Potassium Ferrocyanide; B. Reactions and Structure; (1) Hydrolysis; (2) Reaction with Amines; (3) With Acetic Acid; (4) Reaction with Urea; 3. Cyanuric Iodide; 4. Cyanuric Fluoride; 5. 2-Bromo-4,6-dichloro-s-triazine; 6. 2-Chloro-4,6-diiodo-s-triazine; IV. Cyanuric Acid Esters; 1. Alkyl Esters; A. Methyl Esters; (1) Trimethyl Ester; (2) Diethyl Ester; (3) Halomethoxy-s-triazines; (4) Mixed Methyl Esters; B. Ethyl Esters; (1) Triethyl Ester
(2) Dimethyl Ester

Sommario/riassunto

Chemistry of Heterocyclic Compounds publishes articles, letters to the Editor, reviews, and minireviews on the synthesis, structure, reactivity, and biological activity of heterocyclic compounds including natural products. The journal covers investigations in heterocyclic chemistry taking place in scientific centers of all over the world, including extensively the scientific institutions in Russia, Ukraine, Latvia, Lithuania and Belarus.