1. Record Nr. UNINA9910139588303321

Titolo	Rubber-clay nanocomposites : science, technology, and applications / / edited by Maurizio Galimberti
Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wiley & Sons, , [2011] ©2011
ISBN	1-283-26814-0 9786613268143 1-118-09287-2 1-118-09286-4 1-118-09288-0
Descrizione fisica	1 online resource (627 p.)
Classificazione	TEC009010
Disciplina	620.1/94 620.194
Soggetti	Nanocomposites (Materials) Rubber Electronic books.
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	SECTION I. CLAYS FOR NANOCOMPOSITES. -- 1. Clays and clay minerals. -- 1.1 What's in a name. -- 1.2 Multiscale organization of clay minerals. -- 1.3 Intimate organization of the layer. -- 1.4 Most relevant physic-chemical properties of clay minerals. -- 1.5 Availability of natural clays and synthetic clay minerals. -- 1.6 Clays and (modified) clay minerals as fillers. -- 1.7 References. -- 2. Organophilic Clay Minerals. -- 2.1 Organoohilicity-Lipophilicity and the Hydrophilic Balance (HLB). -- 2.2 From clays to organoclays in polymer technology. -- 2.3 Methods of organoclays synthesis. -- 2.4 Other types of clay modifications (for clay-based nanomaterials). -- 2.5 Fine-tuning of organoclays structure properties. -- 2.6 Some introductory reflections on organo-clay polymer nanocomposites. -- 2.7 References. -- 3. Industrial treatments and modification of clay minerals. -- 3.1 Bentonite: from mine to plant -- 3.2 Processing of bentonite. -- 3.3 Purification of clay. -- 3.4 Reaction

of clay with organic substance. -- 3.5 Particle size modification. -- 3.6 References. -- 4. Alkylammonium Chains on Layered Clay Mineral Surfaces. -- 4.1 Structure and dynamics. -- 4.2 Thermal properties. -- 4.3 Layer separation and miscibility with polymers. -- 4.4 Mechanical properties of clay minerals. -- 4.5 References. -- 5. Chemistry of Rubber/Organoclay Nanocomposites. -- 5.1 Introduction. -- 5.2 Organic Cation decomposition in Salts, Organoclays and Polymer Nanocomposites. -- 5.3 Mechanism of thermal decomposition of Organoclays. -- 5.4 Role of organic Cations in Organoclays as rubber vulcanization activators. -- 5.5 References --
SECTION II. PREPARATION AND CHARACTERIZATION OF RUBBER-CLAY NANOCOMPOSITES. -- 6. Processing Methods for the Preparation of Rubber-Clay Nanocomposites. -- 6.1 Introduction. -- 6.2 Latex compounding method. -- 6.3 Melt compounding. -- 6.4 Solution intercalation and in-situ polymerization intercalation. -- 6.5 Summary and prospects. -- 6.6 References. -- 7. Morphology of rubber clay nanocomposites. -- 7.1 Introduction. -- 7.2 Background for the review of RCN. -- 7.3 Rubber clay nanocomposites with pristine clays. -- 7.4 Rubber clay nanocomposites with clays modified with primary alkenylamines. -- 7.5 Rubber clay nanocomposites with clays modified with an ammonium cation having three methyls and one long alkenyl substituents. -- 7.6 Rubber clay nanocomposites with montmorillonite modified with two substituents larger than methyl. -- 7.7 Rubber clay nanocomposites with montmorillonite modified with an ammonium cation containing a polar group. -- 7.8 Rubber clay nanocomposites with monotmorillonite modified with an ammonium cation containing two long chain alkenyl substituents. -- 7.9 Proposed mechanisms for the formation of rubber clay nanocomposites. -- 7.10 References. -- 8. Rheology of rubber clay nanocomposites. -- 8.1 Introduction. -- 8.2 Rheological Behavior of Rubber/Clay Nanocomposites. -- 8.3 General remarks on rheology of Rubber/Clay Nanocomposites. -- 8.4 Overview of rheological theories of Polymer/Clay Nanocomposites. -- 8.5 Conclusion and outlook. -- 8.6 References. -- 9. Vulcanization Characteristics and C --
13.1 Introduction. -- 13.2 Preparation methods and clay dispersion. -- 13.3 Cure characteristics. -- 13.4 Properties. -- 13.5 Outlook. -- 13.6 References. -- 14. Rubber Clay Nanocomposites based on Butyl and Halobutyl Rubbers. -- 14.1 Introduction. -- 14.2 Types of Clays useful in Butyl Rubber-Clay Nanocomposites. -- 14.3 Compatibilizer Systems for Butyl Rubber-Clay Nanocomposites. -- 14.4 Methods of Preparation of Butyl Rubber-Clay Nanocomposites. -- 14.5 Properties and Applications of Butyl Rubber-Clay Nanocomposites. -- 14. 6 Conclusions. -- 14.7 References. -- 15. Rubber Clay Nanocomposites, based on oleginic rubber (EPM, EPDM). -- 15.1 Introduction. -- 15.2 Types of Clay minerals useful in EPM, EPDM clay Nanocomposites. -- 15.3 Compatibilizer Systems for Olefinic rubber Clay Nonocomposites. -- 15.4 Preparation of EPDM Clay Nanocomposites by an in situ intercalation method. -- 15.5 Characteristics of EPDM clay nanocomposites. -- 15.6 Preparation and characteristics of EPM clay nanocomposites. -- 15.7 Conclusion. -- 16. Rubber Clay Nanocomposites, based on thermoplastic elastromers. -- 16.1 Introduction. -- 16.2 Selection of Materials. -- 16.3 Experimental. -- 16.4 Numerical. -- 16.5 Discussion of Results. -- 16.6 Summary and Conclusions. -- 16.7 Nomenclature. -- 16.8 References --
SECTION IV. APPLICATIONS OF RUBBER: CLAY NANOCOMPOSITES. -- 17. Automotive Applications of Rubber Clay Nanocomposites. -- 17.1 Introduction. -- 17.2 Automotive application of rubber. -- 17.3 Prime requirement of different elastomeric auto components from application

point of view. -- 17.4 Elastomeric nanocomposites and rubber industry. -- 17.5 Superiority of clay: clay minerals in comparison to other nano fillers. -- 17.6 Organomodified clay: clay minerals. -- 17.7 Scope of application of elastomeric nanocomposites in automotive industry. -- 17.8 Disadvantages of use of organoclay elastomeric nanocomposites in automotive industry. -- 17.9 Conclusion. -- 17.10 List of abbreviations. -- 17.11 References. -- 18 Non automotive applications of rubber- clay nanocomposites. -- 18.1 Water based nanocomposites. -- 18.2 Applications.

Sommario/riassunto

"This book comprehensively reviews rubber-clay nanocomposites in a handbook format for R&D professionals. Along with valuable details on synthesis, processing, and mechanics, the book includes applications of rubber-clay nanocomposites in automotive tires and as polymer fillers. In addition, it helps scientists understand processing methods for nanocomposites preparation and nanostructure characterization. This book helps promote common knowledge and interpretation of the important aspects of rubber-clay nanocomposites, clarifying the main results achieved in the field of rubbers and crosslinked rubbers - not covered by the more general books on polymer-clay nanocomposites" --

2.

Record Nr.	UNINA9910831005003321
Autore	Alvear Flores Gerardo R. F
Titolo	Advances in Pyrometallurgy : Furnace Containment / / edited by Gerardo R. F. Alvear Flores, Camille Fleuriault, Dean Gregurek, Quinn G. Reynolds, Hugo Joubert, Stuart L. Nicol, Phillip J. Mackey, Jesse F. White, Isabelle Nolet
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031501760 3031501764
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (189 pages)
Collana	The Minerals, Metals & Materials Series, , 2367-1696
Altri autori (Persone)	FleuriaultCamille GregurekDean ReynoldsQuinn G JoubertHugo NicolStuart L MackeyPhillip J WhiteJesse F NoletIsabelle
Disciplina	660
Soggetti	Production engineering Materials - Analysis Materials Metals Thermal Process Engineering Materials Characterization Technique Process Engineering Metal-organic Frameworks Metals and Alloys
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	This collection explores the methods and challenges of containing corrosive and abrasive materials at extreme temperatures, whether they

		are used across commodities or technology specific. There is much to be learned from cross-commodity and cross-technology perspectives and this collection creates a platform for the exchange of ideas on the challenges, solutions, failures, and successes in furnace containment designs and applications while bringing together perspectives from industry, design houses, and research institutions. Topics include, but are not limited to: · Advances in furnace lining design philosophies · Advances in furnace design configurations and other design considerations · Problems experienced and their solutions implemented during construction and commissioning · Integration of new concepts into old smelters · Back to basics: refractory materials, shells, and cooling systems · Maintaining and monitoring · Process control and slag design · Lessons learned.
3.	Record Nr.	UNINA9910484400603321
	Titolo	Principles of Distributed Systems : 18th International Conference, OPODIS 2014, Cortina d'Ampezzo, Italy, December 16-19, 2014. Proceedings / / edited by Marcos K. Aguilera, Leonardo Querzoni, Marc Shapiro
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
	ISBN	3-319-14472-3
	Edizione	[1st ed. 2014.]
	Descrizione fisica	1 online resource (XVIII, 502 p. 95 illus.)
	Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 8878
	Disciplina	004.36
	Soggetti	Computer networks Algorithms Computer science - Mathematics Discrete mathematics Software engineering Artificial intelligence Computer science Computer Communication Networks Discrete Mathematics in Computer Science Software Engineering Artificial Intelligence Theory of Computation

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographic references and index.
Nota di contenuto	Consistency -- Distributed graph algorithms -- Fault tolerance -- Models -- Radio networks -- Robots -- Self-stabilization -- Shared data structures -- Shared memory -- Synchronization and universal construction.
Sommario/riassunto	This book constitutes the refereed proceedings of the 18th International Conference on Principles of Distributed Systems, OPODIS 2014, Cortina d'Ampezzo, Italy, in December 2014. The 32 papers presented together with two invited talks were carefully reviewed and selected from 98 submissions. The papers are organized in topical sections on consistency; distributed graph algorithms; fault tolerance; models; radio networks; robots; self-stabilization; shared data structures; shared memory; synchronization and universal construction.