Record Nr.	UNINA9910820091903321
Titolo	Fragments of fullerenes and carbon nanotubes : designed synthesis, unusual reactions, and coordination chemistry / / edited by Marina Petrukhina, Lawrence T. Scott
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2012
ISBN	1-283-33197-7 9786613331977 1-118-01125-2 1-118-01126-0 1-118-01122-8
Edizione	[1st ed.]
Descrizione fisica	1 online resource (433 p.)
Altri autori (Persone)	PetrukhinaMarina A ScottLawrence T
Disciplina	546/.681
Soggetti	Fullerenes Fragmentation reactions
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	Fragments of Fullerenes and Carbon Nanotubes: Designed Synthesis, Unusual Reactions, and Coordination Chemistry; CONTENTS; PREFACE; FOREWORD; CONTRIBUTORS; ACRONYMS; 1 MOLECULAR CLIPS AND TWEEZERS WITH CORANNULENE PINCERS; 2 SYNTHESIS OF BOWL- SHAPED AND BASKET-SHAPED FULLERENE FRAGMENTS VIA BENZANNULATED ENYNE - ALLENES; 3 ANIONS OF BUCKYBOWLS; 4 CURVED -CONJUGATED STABLE OPEN-SHELL SYSTEMS POSSESSING THREE-DIMENSIONAL MOLECULAR/ELECTRONIC SPIN STRUCTURES; 5 EXPERIMENTAL AND CALCULATED PROPERTIES OF FULLERENE AND NANOTUBE FRAGMENTS 6 COORDINATION PREFERENCES OF BOWL-SHAPED POLYAROMATIC HYDROCARBONS7 SUMANENES: SYNTHESIS AND COMPLEXATION; 8 - BONDED TRANSITION METAL COMPLEXES OF POLYCYCLIC AROMATIC CARBON COMPOUNDS; 9 HEMISPHERICAL GEODESIC POLYARENES: ATTRACTIVE TEMPLATES FOR THE CHEMICAL SYNTHESIS OF UNIFORM- DIAMETER ARMCHAIR NANOTUBES; 10 AROMATIC BELTS AS SECTIONS

1.

	OF NANOTUBES; 11 CYCLOPARAPHENYLENES: THE SHORTEST POSSIBLE SEGMENTS OF ARMCHAIR CARBON NANOTUBES; 12 CONJUGATED MOLECULAR BELTS BASED ON 3D BENZANNULENE SYSTEMS; 13 TOWARD FULLY UNSATURATED DOUBLE-STRANDED CYCLES 14 BENT PYRENES: SPRINGBOARDS TO AROMATIC BELTS?INDEX
Sommario/riassunto	This book is the first of its kind to reflect upon the intense and rapidly growing interest in open geodesic polyaromatic molecules, specifically focusing on their synthesis and reactivity in metal binding reactions. The book broadly covers all aspects related to the fullerene fragment chemistry: current synthetic techniques, description of the available members of this new family (which has grown to more than two dozens members, with none being available commercially), molecular geometry and trends in the solid state packing, as well as extensions into physical properties and new buckybowl-