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Nota di contenuto	Functional Hybrid Materials; Table of Contents; Preface; List of Contributors; 1 Hybrid Materials, Functional Applications. An Introduction; 1.1 From Ancient Tradition to 21st Century Materials; 1.2 Hybrid Materials. Types and Classifications; 1.3 General Strategies for the Design of Functional Hybrids; 1.4 The Road Ahead; 2 Organic-Inorganic Materials: From Intercalation Chemistry to Devices; 2.1 Introduction; 2.2 Types of Hybrid Organic-Inorganic Materials; 2.2.1 Intercalation Compounds; 2.2.1.1 Intercalation of Ionic Species; 2.2.1.2 Intercalation of Neutral Species 2.2.1.3 Polymer Intercalations: Nanocomposites 2.2.2 Organic Derivatives of Inorganic Solids; 2.2.3 Sol-Gel Hybrid Materials; 2.3 Functions & Devices Based on Organic-Inorganic Solids; 2.3.1 Selective Sorbents, Complexing Agents & Membranes; 2.3.2 Heterogeneous Catalysts & Supported Reagents; 2.3.3 Photoactive, Optical and Opto-

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## Sommario/riassunto

Functional Hybrid Materials consist of both organic and inorganic components, assembled for the purpose of generating desirable properties and functionalities. The aim is twofold: to bring out or enhance advantageous chemical, electrochemical, magnetic or electronic characteristics and at the same time to reduce or wholly suppress undesirable properties or effects. Another target is the creation of entirely new material behavior. The vast number of hybrid material components available has opened up a wide and diversified field of fascinating research. In this book, a team of highly renowned

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