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Nota di contenuto	Energetic Materials; Table of Contents; Preface; List of Contributors; 1 New Energetic Materials; 1.1 Introduction; 1.1.1 Applications of Energetic Materials; 1.2 Application Requirements; 1.2.1 Explosives; 1.2.2 Solid Rocket Propellants; 1.2.3 Propellant Powder; 1.3 New Energetic Materials; 1.3.1 CL-20; 1.3.1.1 Synthesis and Availability of CL-20; 1.3.1.2 Chemical and Thermal Properties of CL-20; 1.3.1.3 Sensitivity and Phase Behavior of CL-20; 1.3.2 Octanitrocubane; 1.3.3 TNAZ; 1.3.1.1 Chemical and Thermal Properties of TNAZ; 1.3.3.2 Synthesis and Availability of TNAZ; 1.3.4 ADN 1.3.4.1 Synthesis and Availability of ADN1.3.4.2 Thermal Behavior of ADN; 1.3.4.3 Long-term Stability of ADN; 1.3.4.4 Processability of ADN; 1.3.4.5 Safety Properties of ADN; 1.3.5 FOX-7 (1,1-Diamino-2,2-dinitroethylene); 1.4 Conclusion; 1.5 Acknowledgments; 1.6 References; 2 Size Reduction; 2.1 Fundamentals of Size Reduction; 2.1.1 Material and Crack Behavior; 2.1.2 Size Reduction Energy; 2.1.3 Selection Criteria for Size Reduction Processes; 2.2 Size Reduction Processes; 2.2.1 Pinned Disk Mill; 2.2.2 Jet Mill; 2.2.3 Colloid Mills;

Sommario/riassunto

Incorporation of particular components with specialized properties allows one to tailor the end product's properties. For instance, the sensitivity, burning behavior, thermal or mechanical properties or stability of energetic materials can be affected and even controllably varied through incorporation of such ingredients. This book examines particle technologies as applied to energetic materials such as propellants and explosives, thus filling a void in the literature on this subject.Following an introduction covering general features of energetic materials, the first section of this b