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Nota di contenuto	Intro -- TMR RESEARCH IN INSULATING GRANULAR MAGNETIC MATERIALS -- TMR RESEARCH IN INSULATING GRANULAR MAGNETIC MATERIALS -- CONTENTS -- PREFACE -- GIANT MAGNETORESISTANCE IN MAGNETIC MULTILAYERS AND MAGNETIC GRANULAR ALLOYS -- 1A. METALLIC MAGNETIC MULTILAYERS -- 1. Introduction -- 1.1. Magnetic Metal Multilayers -- 1.2. Giant Magnetoresistance -- 2. Experimental -- 3. Survey of Results -- 3.1. As-deposited Multilayers -- 3.2. Annealing Effect -- 4. Summary -- 1B. GRANULAR METALLIC FILMS -- 1. Introduction -- 2. Experimental -- 3. Survey of the Results -- 3.1. As-deposited State -- 3.2. Annealing Effect -- CONCLUSION -- REFERENCES -- TUNNELING GIANT MAGNETORESISTANCE IN HETEROGENEOUS INSULATING GRANULAR FILMS AND MAGNETIC GRANULAR ALLOYS -- 1. INTRODUCTION -- 2. EXPERIMENTAL -- 3. ELECTRICAL TRANSPORT IN HETEROGENEOUS INSULATING GRANULAR FILMS -- 4. MAGNETIC PROPERTIES -- 5. TUNNELING MAGNETORESISTANCE -- CONCLUSION -- REFERENCES -- FORMATION OF GRANULAR LAYERS BY ION IMPLANTATION -- 1. INTRODUCTION -- 2. EXPERIMENTAL DETAILS FOR CHARACTERIZING TMR GRANULES -- 3. ION IMPLANTATION -- 3.1. Single Ion Implantation -- 3.2. Multiple Ion Implantation -- 3.3. Modification of Implanted Granules by High Energy Ion Irradiation -- CONCLUSION -- REFERENCES -- TMR EFFECT IN

GRANULAR LAYERS BY ION IMPLANTATION -- 1. INTRODUCTION -- 2. EXPERIMENTAL TECHNIQUES FOR CHARACTERIZING TMR GRANULES -- 3 MAGNETIC PROPERTIES AND TMR EFFECTS IN IMPLANTED GRANULES -- 3.1. Direct Implantation of Magnetic Elements -- 3.2. Ion Beam Modification of TMR Effect -- CONCLUSION -- ACKNOWLEDGMENTS -- REFERENCES -- INDEX.

Sommario/riassunto

Artificially structured materials granular magnetic solids, as well as nano-sized multi-layer films are of great interest. The granules consist of nanometer sized metal particles embedded in an immiscible medium, in most cases an insulator. This book presents and reviews research in the study of insulating granular magnetic materials.
