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Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	""Title page""; ""Copyright""; ""PREFACE""; ""LIST OF CONTRIBUTORS""; ""1 DENSITY, THERMAL PROPERTIES, AND THE GLASS TRANSITION TEMPERATURE OF GLASSES""; ""Part I: Introduction to Physical Properties and Their Uses""; ""Part II: Density""; ""1.1 DENSITY: EXPERIMENTAL BACKGROUND AND THEORY""; ""Part III: Thermal Effects with a Focus on the Glass Transition Temperature""; ""1.2 OVERVIEW""; ""1.3 EXPERIMENTAL METHODS AND THEORY""; ""1.4 INSTRUMENTATION USED FOR DETERMINING Tg AND RELATED THERMAL EVENTS""; ""1.5 ANALYSIS OF DATA AND EXTRACTION OF USEFUL INFORMATION"" ""1.6 CASE STUDIES FROM GLASS SYSTEMS""""1.7 CONCLUSION TO THERMAL PROPERTIES""; ""ACKNOWLEDGMENTS""; ""REFERENCES""; ""2 INFRARED SPECTROSCOPY OF GLASSES""; ""2.1 INTRODUCTION""; ""2.2 BACKGROUND AND THEORY""; ""2.3 INSTRUMENTATION""; ""2.4 ANALYSIS OF INFRARED DATA""; ""2.5 CASE STUDIES""; ""2.6 CONCLUSIONS""; ""ACKNOWLEDGMENTS""; ""REFERENCES""; ""3 RAMAN SPECTROSCOPY OF GLASSES""; ""3.1 INTRODUCTION""; ""3.2 BACKGROUND""; ""3.3 INSTRUMENTATION AND DATA ANALYSIS""; ""3.4

CASE STUDIES""; ""3.5 CONCLUSIONS""; ""ACKNOWLEDGMENTS""; ""REFERENCES""; ""4 BRILLOUIN LIGHT SCATTERING""
""4.1 INTRODUCTION"""""4.2 BACKGROUND AND THEORY""; ""4.3 INSTRUMENTATION""; ""4.4 DATA ANALYSIS AND INFORMATION CONTENT""; ""4.5 EXAMPLES OF CASE STUDIES""; ""4.6 SUMMARY""; ""REFERENCES""; ""5 NEUTRON DIFFRACTION TECHNIQUES FOR STRUCTURAL STUDIES OF GLASSES""; ""5.1 INTRODUCTION""; ""5.2 INSTRUMENTATION""; ""5.3 THEORETICAL ASPECTS OF NEUTRON DIFFRACTION ON GLASSES""; ""5.4 THE APPLICATION OF NEUTRON DIFFRACTION TO STUDIES OF GLASS STRUCTURE""; ""ACKNOWLEDGMENTS""; ""REFERENCES""; ""FURTHER READING""; ""Notes""; ""6 X-RAY DIFFRACTION FROM GLASS""; ""6.1 INTRODUCTION""
""6.2 BACKGROUND/THEORY"""""6.3 ANALYSIS OF DATA, EXTRACTION OF USEFUL INFORMATION""; ""6.4 INSTRUMENTATION""; ""6.5 CASE STUDIES""; ""6.6 CONCLUSIONS""; ""ACKNOWLEDGMENTS""; ""REFERENCES""; ""7 XAFS SPECTROSCOPY AND GLASS STRUCTURE""; ""7.1 INTRODUCTION""; ""7.2 THE ORIGINS OF X-RAY ABSORPTION SPECTRA""; ""7.3 XAFS INSTRUMENTATION""; ""7.4 THE PHYSICAL MECHANISM OF XAFS""; ""7.5 EXAFS""; ""7.6 XAFS DATA ANALYSIS""; ""7.7 EXAFS ACCURACY AND LIMITATIONS""; ""7.8 XANES""; ""7.9 XAFS SPECTROSCOPY APPLIED TO GLASS STRUCTURE: SOME EXAMPLES""; ""7.10 SUMMARY AND CONCLUSIONS""; ""REFERENCES""
""8 NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY OF GLASSES"""""8.1 INTRODUCTION""; ""8.2 THEORETICAL BACKGROUND""; ""8.3 INSTRUMENTATION""; ""8.4 DATA ANALYSIS AND STRUCTURAL INTERPRETATION""; ""8.5 CASE STUDIES""; ""8.6 CONCLUSIONS""; ""ACKNOWLEDGMENTS""; ""REFERENCES""; ""9 ADVANCED DIPOLAR SOLID STATE NMR SPECTROSCOPY OF GLASSES""; ""9.1 INTRODUCTION""; ""9.2 THEORETICAL ASPECTS""; ""9.3 HETERONUCLEAR EXPERIMENTS""; ""9.4 HOMONUCLEAR EXPERIMENTS""; ""9.5 CASE STUDIES""; ""ACKNOWLEDGMENTS""; ""REFERENCES""; ""10 ATOM PROBE TOMOGRAPHY OF GLASSES""; ""10.1 INTRODUCTION""
""10.2 BACKGROUND AND THEORY""

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Titolo	Fractal Patterns with MATLAB / / by Santo Banerjee, A. Gowrisankar, Komandla Mahipal Reddy
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Disciplina	514.742
Soggetti	Dynamics System theory Mathematical physics Dynamical Systems Complex Systems Theoretical, Mathematical and Computational Physics
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Formato	Materiale a stampa
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Nota di contenuto	Fractals and Dimensions -- Fractal Transformation -- Univariate Fractal Functions -- Differentiable Fractal Interpolation Functions -- Fractal Interpolation Surfaces. .
Sommario/riassunto	This book presents the iterative beauty of fractals and fractal functions graphically with the aid of MATLAB programming. The fractal images generated using the MATLAB codes provide visual delight and highly encourage the fractal lovers for creative thinking. The book compiles five cutting-edge research chapters, each with state-of-the art fractal illustrations. It starts with the fundamental theory for the construction of fractal sets via the deterministic iteration algorithm. Incorporating the theoretical base, fractal illustrations of elementary fractal sets are provided with the explicit MATLAB code. The book gives examples of MATLAB codes to present the fractal surfaces. This book is contributed to all the research beginners as well as the professionals on the field of fractal analysis. As it covers basic fractals like Sierpinski triangle to advanced fractal functions with explicit MATLAB code, the presented fractal illustrations hopefully benefit even the non-field readers. The

book is a useful course to all the research beginners on the fractal and fractal-related fields.