

1. Record Nr.	UNINA9910810601103321
Titolo	Modern glass characterization // edited by Mario Affatigato
Pubbl/distr/stampa	Hoboken, New Jersey : , : The American Ceramic Society : , : Wiley, , 2015 ©2015
ISBN	1-119-05187-8 1-119-05186-X 1-119-05188-6
Descrizione fisica	1 online resource (585 p.)
Disciplina	620.1/440287
Soggetti	Glass - Analysis Chemical structure Emission spectroscopy
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 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 T _g 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"
