

Contents

Preface — V

List of Contributors — IX

Yang Song

Characterization of pressure-mediated molecular evolutions in confined space probed by *in situ* vibrational spectroscopy — 1

Ian S. Butler

Diamond-anvil cell molecular spectroscopy of solid materials — 43

Janice L. Musfeldt

Introduction to molecule-based multiferroics — 63

Alexander F. Goncharov

Simple molecules at high pressures: transitions to extended and atomic states — 91

H. C. Walker

Inelastic neutron scattering under pressure — 139

John S. Tse, E. Ercan Alp

Application of inelastic scattering of X-rays at high pressure — 159

Israel Roger Montoya Matos, Alvaro Carrillo Herrera, Silvio Buchner,
Naira Maria Balzaretti

Lanthanide-doped glasses under high pressure — 227

Christian Reber, Chahinez Dab, Pierre-François Blanc

Metal–ligand bonding in six-coordinate d-block complexes probed by luminescence spectroscopy at variable pressure — 239

Index — 251