Contents

Preface v

1. Theoretical Studies of Photoexcitations in Fullerenes
   Shuji Abe 1

2. Ultrafast Dynamics of Electronic and Vibrational Excitations in
   Fullerenes
   Susan L. Dexheimer 21

3. Photoexcited State and Electron Transfer Properties of Fullerenes
   and Related Materials
   Ya-Ping Sun, Jason E. Riggs, Zhixin Guo, and Harry W. Rollins 43

4. Optical Studies of Fullerene Triplet States
   R. Bruce Weisman 83

5. The Electronic Third-Order Nonlinear Optical Properties of
   C_{60} and C_{70} Films
   F. P. Strohkendl and Zakya H. Kafafi 119

6. Optical Limiting and Excited-State Absorption in Fullerene
   Solutions and Doped Glasses
   R. Kohlman, V. Klimov, L. Smilowitz, and D. McBranch 143

7. Magnetic Resonance Studies of Photoexcited Fullerenes
   P. A. Lane, Zeev Valy Vardeny, and Joseph Shinar 169

8. Electrons and Phonons in Fullerenes and Carbon Nanotubes
   M. S. Dresselhaus, G. Dresselhaus, P. C. Eklund, and R. Saito 217
9. Photoconductivity in Fullerene Thin Films and Solids
   Nobutsugu Minami and Said Kazaoui

10. Optical and Electronic Properties of Polymeric Fullerenes
    H. Kuzmany, B. Burger, and J. Kürti

11. Electronic Properties of Fullerene/π-Conjugated Polymer
    Composites
    N. Serdar Sariciftci

Index