Contents

| Preface | ix xi |
|--|----------|
| Microwaves and Thermoregulation: Historical Introduction Herman P. Schwan | 1 |
| Characterizing the Thermal Environment Larry G. Berglund | 15 |
| The Microwave Stimulus John M. Osepchuk | 33 |
| Electromagnetic Heating for Therapy Arthur W. Guy and Chung-Kwang Chou | 57 |
| In Vivo Temperature Measurements during Whole-Body Exposure of Macaca Mulatta to Resonant and Nonresonant Frequencies Jerome H. Krupp | 95 |
| Infrared Radiation and Human Thermal Comfort Richard R. Gonzalez | 109 |
| Body Temperature Regulation during Euthermia and Hyperthermia Steven G. Shimada and John T. Stitt | 139 |
| Central Nervous Mechanisms Regulating Body Temperature H. Craig Heller | 161 |
| Thermal Sensation: Infrared and Microwaves Joseph C. Stevens | 191 |
| Sensory Dynamics of Intense Microwave Irradiation: A Comparative Study of Aversive Behaviors by Mice and Rats *Don R. Justesen** | 203 |

| viii | Contents |
|--|----------|
| Sensation, Subtleties, and Standards: Synopsis of a Panel Discussion Eleanor R. Adair | 231 |
| Beyond Thermoregulation Charles Süsskind | 239 |
| Circulatory and Sweating Responses during Exercise and Heat Stress C. Bruce Wenger | 251 |
| Acclimation to Heat and Suggestions, by Inference, for Microwave Radiation Ralph F. Goldman | 275 |
| Thermoregulation in Intense Microwave Fields Sol M. Michaelson | 283 |
| Evaluation of Thermoregulatory Response to Microwave Power Deposition Jan A. J. Stolwijk | 297 |
| Thermoregulatory Behavioral Responses Michel Cabanac | 307 |
| Changes in Thermoregulatory Behavior during Microwave Irradiation Eleanor R. Adair | 359 |
| The Thermal Basis for Disruption of Operant Behavior by Microwaves in Three Animal Species John O. de Lorge | 379 |
| Subtle Consequences of Exposure to Weak Microwave Fields: Are There Nonthermal Effects? Richard H. Lovely, Sheri J. Y. Mizumori, Robert B. Johnson, and Arthur W. Guy | 401 |
| Detection of Radiofrequency Radiation—Induced Whole-Body Heating Following Chemical Impairment of Thermoregulation Ralph J. Smialowicz | 431 |
| Influence of the Circadian Rhythm of Body Temperature on the Physiological Response to Microwaves: Day vs Night Exposure W. Gregory Lotz | 445 |
| "The Brain Is the Organ of Longevity": Introduction to G. A. Sacher's Free-Energy Hypothesis of Life-Span Enhancement Don R. Justesen | 461 |