

BIOEFFECTS AND THERAPEUTIC APPLICATIONS OF ELECTROMAGNETIC ENERGY

This book allows you to

- Understand the necessary electromagnetic theory in the context of its interaction with the human body
- Review cutting-edge research on EM health effects and EM therapy
- Explore techniques developed to ensure adequate EM and thermal dosimetry required for health effects and thermal therapy
- Strengthen your understanding of the rapidly emerging areas of bioengineering and biomedical engineering

From cell phones to treating cancer, electromagnetic (EM) energy plays a part in many of the innovations that we take for granted everyday. A basic force of nature, like nuclear energy or gravity, this energy can be harnessed and used, but still holds the potential to be harmful. The question remains, how safe are EM products? ***Bioeffects and Therapeutic Applications of Electromagnetic Energy*** provides a review of cutting-edge research in EM health effects and EM therapy along with emerging areas of bioengineering and biomedical engineering.

Taking a transdisciplinary approach drawn from several different intellectual streams that include physics, epidemiology, medicine, environment, risk assessment, and various disciplines of engineering, this book ventures into the conflicting studies to access research on bioeffects and therapeutic applications of EM energy. It covers bioeffects and risk assessment of both extremely low frequency (ELF) fields and radiofrequency radiation (RFR) along with thermal therapy and imaging techniques.

Features

- Introduces EM fields and radiation and discusses EM interaction mechanisms with biological systems
- Offers coverage of bioeffects and risk assessment of low frequency fields and radio frequency radiation
- Presents recent developments in therapeutic applications of EM energy, EM and thermal dosimetry, and imaging techniques
- Highlights standard and regulatory issues related to EM exposure

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