1. Record Nr. UNINA9910811016403321 Autore Fenn A. J (Alan Jeffrey), <1953-> Titolo Adaptive phased array thermotherapy for cancer / / Alan J. Fenn Pubbl/distr/stampa Boston,: Artech House, c2009 **ISBN** 1-59693-380-1 Edizione [1st ed.] Descrizione fisica 1 online resource (240 p.) 616.9940632 Disciplina Soggetti Cancer - Thermotherapy Microwaves - Therapeutic use Microwave antennas Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Adaptive Phased Array Thermotherapy for Cancer; Contents; Preface; Chapter 1: Adaptive Phased Array Thermotherapy Technique; Chapter 2: Adaptive Phased Array Algorithms for Thermotherapy; Chapter 3: Electromagnetic Field Theory for Tissue Heating; Chapter 4: Thermal Modeling Theory for Tissue Heating: Chapter 5: Adaptive Array Simulations for the Torso; Chapter 6: Phantom Studies for Deep Tumors in the Torso; Chapter 7: Monopole Phased Array for Deep Cancer; Chapter 8: Adaptive Array for Breast Cancer: Preclinical Results; Chapter 9: Adaptive Array for Breast Cancer: Clinical Results Chapter 10: Future Studies of Adaptive Phased Arrays for Cancer About the Author; Index Sommario/riassunto Adaptive microwave phased array antennas are well known for their ability to improve the performance of communications and radar systems. And now, adaptive phased array techniques are beginning to be successfully applied to RF and microwave thermotherapy treatment of cancerous tumors. This groundbreaking book details innovative phased array techniques currently being developed at the MIT Lincoln Laboratory for cancer treatment. Until now, this material has only been available in Lincoln Laboratory reports and peer-reviewed journals. From electromagnetic field theory for tissue heating ... to simulations

of adaptive phased array thermotherapy for deep tumors of the torso ... to coverage of arrays for tumors in the head, neck, breast, and chest

wall, this timely resource offers you expert guidance in this emerging area. You also find an insightful look at future research topics for adaptive phased array thermotherapy.