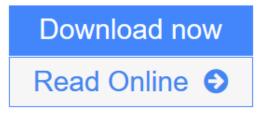


# Clinical MR Spectroscopy: Techniques and Applications

Peter B. Barker, Alberto Bizzi, Nicola De Stefano, Rao Gullapalli, Doris D. M. Lin



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In vivo magnetic resonance spectrosopy (MRS) is increasingly being used in the clinical setting, particularly for neurological disorders. Clinical MR Spectroscopy – Techniques and Applications explains both the underlying physical principles of MRS and provides a perceptive review of clinical MRS applications. Topics covered include an introduction to MRS physics, information content of spectra from different organ systems, spectral analysis methods, recommended protocols and localization techniques, and normal age-and region-related spectral variations in the brain. Clinical applications in the brain are discussed for brain tumors, hypoxic and ischemic injury, infectious, inflammatory and demyelinating diseases, epilepsy, neurodegenerative disorders, trauma and metabolic diseases. Outside of the brain, techniques and applications are discussed for MRS in the musculosketal system, breast and prostate. Written by leading MRS experts, this is an invaluable guide for anyone interested in in vivo MRS, including radiologists, neurologists, neurologists, neurologists and medical researchers.

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