

1. Record Nr.	UNINA9910143742403321
Titolo	Metabolomics by in vivo NMR [[electronic resource] /] / editors, R.G. Shulman and D.L. Rothman
Pubbl/distr/stampa	Chichester, West Sussex ; ; Hoboken, NJ, : John Wiley & Sons, c2005
ISBN	1-280-27456-5 9786610274567 0-470-01150-5 0-470-01149-1
Descrizione fisica	1 online resource (209 p.)
Altri autori (Persone)	ShulmanR. G (Robert Gerson) RothmanD. L (Douglas L.)
Disciplina	572.4 572.41072 572/.41/072
Soggetti	Metabolism Metabolism - Research - Methodology Nuclear magnetic resonance spectroscopy Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	In vivo NMR spectroscopy-techniques; direct detection; MRS; kinetics & labels; fluxes; concentrations / R. deGraaf -- MCA for the NMR spectroscopists / D. Fell and D.L. Rothman -- MRS studies of the role of muscle glycogen synthesis pathway in the pathophysiology of type 2 diabetes / D.L. Rothman, J.R.A. Schafer, & R.G. Shulman -- Phosphorylation of allosteric enzymes can serve homeostasis rather than control flux: the example of glycogen synthase / James R.A. Schafer ... [et al.] -- Regulation of glycogen metabolism in muscle during exercise / T. Price, D.L. Rothman and R.G. Shulman -- <sup>13</sup> C NMR studies of myocardial glycogen metabolism / M. Laughlin, D.L. Rothman and R.G. Shulman -- Bioenergetics implication of metabolic fluctuation during muscle contraction / Thomas Jue -- Lactate, glycogen and fatigue / R.G. Shulman and D.L. Rothman -- Futile cycling

in yeast: how to control gluttony in the midst of plenty / Jan den Hollander and Robert G. Shulman -- Trehalose energetics in yeast spores / Robert G. Shulman and Jan den Hollander -- Metabolic networks in the liver by  $^2\text{H}$  and  $^{13}\text{C}$  NMR / A. Dean Sherry and Craig R. Malloy -- Summarized reflections on metabolism / R.G. Shulman and James R.A. Schafer.

---

Sommario/riassunto

Metabolism By In Vivo NMR reviews and extends the experimental and theoretical reports concerning in vivo NMR, a pioneering approach that offers versatile new ways of studying metabolic pathways. Perfectly timed to coincide with recent findings that demonstrate the novelty and strength of this approach, the book covers recent applications in biochemistry, medicine, and psychology; in vivo NMR techniques; MCA; glucose metabolism focusing on glycogen; the value of muscle glycogen measurements in exercise; and much more. This book is unique in linking in vivo  $^{13}\text{C}$  NMR meas

---