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ELECTRON TRANSFER REACTIONS IN SOLUTION: A HISTORICAL

PERSPECTIVE; ELECTRON TRANSFER-FROM ISOLATED MOLECULES TO BIOMOLECULES; CHARGE TRANSFER IN BICHROMOPHORIC MOLECULES IN THE GAS PHASE; LONG-RANGE CHARGE SEPARATION IN SOLVENT-FREE DONOR-BRIDGE-ACCEPTOR SYSTEMS; ELECTRON TRANSFER AND CHARGE SEPARATION IN CLUSTERS; CONTROL OF ELECTRON TRANSFER

KINETICS: MODELS FOR MEDIUM REORGANIZATION AND DONOR-

ACCEPTOR COUPLING

THEORIES OF STRUCTURE-FUNCTION RELATIONSHIPS FOR BRIDGE-MEDIATED ELECTRON TRANSFER REACTIONSFLUCTUATIONS AND COHERENCE IN LONG-RANGE AND MULTICENTER ELECTRON TRANSFER; LANCZOS ALGORITHM FOR ELECTRON TRANSFER RATES IN SOLVENTS WITH COMPLEX SPECTRAL DENSITIES; SPECTROSCOPIC DETERMINATION OF ELECTRON TRANSFER BARRIERS AND RATE CONSTANTS; PHOTOINDUCED ELECTRON TRANSFER WITHIN DONOR-SPACER-ACCEPTOR MOLECULAR ASSEMBLIES STUDIED BY TIME-RESOLVED MICROWAVE CONDUCTIVITY; FROM CLOSE CONTACT TO LONG-RANGE INTRAMOLECULAR ELECTRON TRANSFER; PHOTOINDUCED ELECTRON TRANSFERS THROUGH O BONDS IN SOLUTION AUTHOR INDEXSUBJECT INDEX

Sommario/riassunto

an integrated approach to electron transfer phenomenaThis two-part stand-alone volume in the prestigious Advances in Chemical Physics series provides the most comprehensive overview of electron transfer science today. It draws on cutting-edge research from diverse areas of chemistry, physics, and biology-covering the most recent developments in the field, and pointing to important future trends. This initial volume includes:* A historical perspective spanning five decades* A review of concepts, problems, and ideas in current research* Electron transfer in isolated molecules