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Nota di contenuto	Introduction -- Theory of spin exchange in dilute solutions -- Paramagnetic relaxation caused by spin-spin dipole-dipole interaction of paramagnetic particles in a liquid -- Modified Bloch equations for dilute solutions of free radicals taking into account exchange and dipole-dipole interactions -- Manifestation of exchange and dipole-dipole interaction in the form of EPR spectra of paramagnetic particles in solutions in linear response case -- Experimental determination of the spin exchange rate from the analysis of the EPR spectrum shape -- Other methods of measuring the spin exchange rate constants -- In Conclusion.
Sommario/riassunto	This book is a comprehensive summary of 50 years of research from theoretical predictions to experimental confirmation of the manifestation of spin exchange in EPR spectroscopy. The author unfolds the details of comprehensive state of the art of theoretical

calculations, which have been proven to become the core of the paradigm shift in spin exchange and set the direction for the future of spin exchange research. The book refers to important experimental data that confirms the theory. It describes the modern protocol for determining the bi-molecular spin exchange rate from the EPR spectra, which will be especially interesting for experimentalists. Given its scope, the book will benefit all researchers engaged in theory and experiments in the area of spin exchange and its manifestations in EPR spectroscopy, where many remarkable applications of the spin probe have been developed. .