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Sommario/riassunto

Written by a pioneer in the development of spin labeling in biophysics, this expert book covers the fundamentals of nitroxide spin labeling through cutting-edge applications in chemistry, physics, materials science, molecular biology, and biomedicine. Nitroxides have earned their place as one of the most popular organic paramagnets due to their suitability as inhibitors of oxidative processes, as a means to polarize magnetic nuclei, and, in molecular biology, as probes and labels to understand molecular structures and dynamics as drags for cancer and other diseases. Beginning with an overview of the basic methodology and nitroxides' 145-year history, this book equips students with necessary background and techniques to undertake original research and industry work in this growing field.