Turkish Journal of Physics

Turkish Journal

of

Physics

Keywords
Authors

phys@tubitak.gov.tr

Scientific Journals Home Page

PENDANT ^{13}C NMR Spectroscopy Applied to CH_n Groups

Azmi GENÇTEN[1], İrfan ŞAKA[1] and Sedat GÜMÜŞ[2]
[1]Department of Physics, Faculty of Arts and Sciences, Ondokuz Mayıs University, Samsun-TURKEY
e-mail:gencten@omu.edu.tr
[2]Department of Physics, Amasya Education Faculty, Amasya University Amasya-TURKEY

Abstract: Polarization enhancement nurtured during attached nucleus testing (PENDANT) NMR spectroscopy gives signals of quaternary carbon atoms in addition to signals indicative of CH, CH_2 and CH_3 groups. In this study, using product operator theory, analytical description of PENDANT NMR spectroscopy for CH_n (IS_n, I = 1/2, S = 1/2, n = 0, 1, 2, 3) spin systems are presented. Simulation and experimental results of PENDANT NMR spectroscopy are also presented. Theoretical results are found to be in exact agreement with the simulation results and in good agreement with the experimental ones.

Key Words: PENDANT, ^{13}C NMR, Product Operator Theory.

Turk. J. Phys., **30**, (2006), 149-155.
Full text: pdf
Other articles published in the same issue: Turk. J. Phys.,vol.30,iss.3.