Service de Physique Nucléaire



Séminaire

le vendredi 10 avril 2009 à 11H

CEA Saclay, Orme des Merisiers, Bât. 703, Salle 135

Nuclear Polarization, Recent Results and New Applications

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After a brief tour through the principles of nuclear polarization the talk will focus on the exciting results, which could be obtained using the new trityl type radicals for DNP (Dynamic Nuclear Polarization). This development was originally initiated by the research in LiD as the target material for COMPASS, in which we achieved a deeper understanding of the role of the polarization determining properties of DNP radicals. Using these trityl radicals several laboratories around the world are actually investigating the application of 'hyperpolarized' organic substances as contrast mediums for MRT. Finally there will be also a summary about the recent results in brute force HD targets as well as some comments about a possible DNP in this material.