13C CP-MAS NMR of azacycle-thiourea inclusion compounds

Jara, Paul

Yutronic, Nicolás

González, Guillermo

13C CP-MAS NMR spectra of thiourea host-guest inclusion compounds containing amines, 1-azabicyclo[2.2.2]octane, 1,4-diazabicyclo[2.2.2]octane, 3-azabicyclo[3.2.2]nonane and 1, 3, 5, 7 tetrazadamantane at 25°C are reported. Chemical shifts of the confined guest molecule with respect to those diluted in CDCI3 and CCI4 reveal a weaker interaction of the amine with the medium. The magnitude of the average of the 13C-14N residual dipolar interactions produced by the amplitude motions of the amine guest molecules in the channel depends on the strength of the host-guest hydrogen bonding.