

# Synthesis and structural aspects of urea/dialkylamine inclusion compounds

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The synthesis and structural aspects of urea host-guest inclusion compounds containing linear secondary alkylamines (dibutyl-, dipentyl-, dihexyl-, dioctyl-) at 25°C are reported. Elemental analysis,  $^{13}\text{C}$  CP-MAS NMR and  $^1\text{H}$ -NMR Spectroscopy, and Powder X-ray Diffraction Analysis confirm the inclusion process. The basic host structure of the products is similar to that of urea-hydrocarbon systems.  $^{13}\text{C}$  MAS-NMR experiments show chemical shift differences for the confined guest molecule with respect to the liquid phase. Stoichiometry and  $|c_g|$  values for the inclusion compounds with dipentyl- and dihexylamine suggest a commensurate structure. © 1995 Kluwer Academic Publishers.