

## 醇和*N,N*-二甲基乙酰胺分子间相互作用的FTIR光谱研究

SIVAGURUNATHAN P.;RAMACHANDRAN K.;DHARMALINGAM K.

Department of Physics, Annamalai University, Annamalai Nagar-608002, Tamilnadu, India

### 摘要:

The association between alcohols and *N,N*-dimethylacetamide in carbon tetrachloride was investigated using FTIR spectroscopy at 298 K. The formation constants for 1:1 and 1:2 complexes were calculated using the method of Whetsel and Kagarise. The observed 1:1 complex values were also verified using the method of Nash. The rate of change in C=O bond moment on complexing with alcohols increased with increasing acidity of alcohols. The formation constant and values of free energy change increased with the increase in carbon chain length of alcohols, which suggested that the degree of complex formation varied with the length of the carbon chain of alcohols.

关键词: FTIR spectroscopy Hydrogen bonding 1:1 and 1:2 complexes

收稿日期 2006-08-08 修回日期 2006-10-08 网络版发布日期 2007-03-07

通讯作者: SIVAGURUNATHAN P. Email: sivatamil2001@yahoo.com

### 本刊中的类似文章

1. RAMACHANDRAN Krishnamurthy; DHARMALINGAM Kurunthu; SIVAGURUNATHAN Periyasamy. *N*-甲基甲酰胺与醇的氢键相互作用[J]. 物理化学学报, 2006, 22(12): 1560-1562

扩展功能

本文信息

[PDF\(114KB\)](#)

服务与反馈

[把本文推荐给朋友](#)

[加入我的书架](#)

[加入引用管理器](#)

[引用本文](#)

[Email Alert](#)

[文章反馈](#)

[浏览反馈信息](#)

本文关键词相关文章

▶ [FTIR spectroscopy](#)

▶ [Hydrogen bonding](#)

▶ [1:1 and 1:2 complexes](#)

本文作者相关文章

▶ [SIVAGURUNATHAN P.](#)

▶ [RAMACHANDRAN K.](#)

▶ [DHARMALINGAM K.](#)