

IR Spectroscopic Study of $M(\text{Benzoic Acid})_2\text{Ni}(\text{CN})_4 \cdot (1,4\text{-Dioxane})$ Clathrate (M = Ni, Cd and Co)

Zeki Kartal

Physics Department, Faculty of Arts and Sciences, Dumlupınar University, Kütahya, Turkey

Reprint requests to Dr. Z. K.; E-mail: zkartal@dumlupinar.edu.tr

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In this study, clathrate of benzoic acid-tetracyanonickel, given by the formula $M(\text{benzoic acid})_2\text{Ni}(\text{CN})_4 \cdot (1,4\text{-dioxane})$ (M = Ni, Cd and Co), is obtained for the first time through chemical methods. The similarities of the observed spectra indicate that the obtained clathrate of benzoic acid-tetracyanonickel is a new example of Hofmann-type clathrates. – PACS numbers: 33.20.Ea, 33.20.Tp

Key words: Inclusion Compounds; Benzoic Acid (BA); Infrared Spectroscopy (IR); Hofmann-type Clathrate.