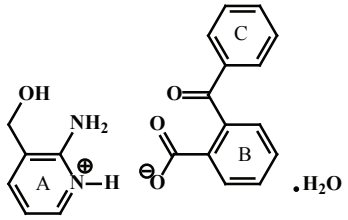
The title crystal is obtained with the reaction of (2-aminopyridin-3-yl)methanol (2-aminopyridine used in manufacture of pharmaceuticals, hair dyes and other dyes) and 2-benzoylbenzoic acid. The cotton fabrics which treated benzophenone derivatives have powerful antibacterial properties against *S. aureus* and *E. coli*, and benzoylbenzoic acid derivatives treated cotton fabric demonstrated pesticide degradation ability, under UV irradiation [1]. Furthermore, the cupper (II) complexes of 2-aminopyridinium carboxylates have important properties in the applications of pharmaceuticals, fungicides, oxygen transfer, oxidative addition, homogenous hydrogenation, gas occlusion compounds, and solvent extractions processes [2,3]. Hydrogen bonding plays a key role in molecular recognition [4] and crystal engineering research [5]. The design of highly specific solid-state structures is of considerable significance in organic chemistry due to their important applications in the development of new optical, magnetic and electronic systems [6]. With this in mind, the synthesis and structure determination of the title compound (I), were undertaken.



The crystal structure of the title compound exhibit four N-H…O, three O-H…O and two π…π interactions. The dihedral angle between the A/B, A/C and B/C aromatic rings are 4.42(14)˚, 78.59(14)˚ and 82.04(14)˚ respectively.

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Keywords: 2-aminopyridine; 2-benzoylbenzoic acid; hydrogen bonding; X-ray crystal structure

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Chiral Supramolecular Chemistry Crystal Structure Synthesis-Constructing Channel Structures Based on D_3 Metal Complexes. S. N. Abdul Halim[a], C. J. Adams[a], A. G. Orpen[a]. [a]*School of Chemistry, University of Bristol, Cantock's Close, Bristol, BS8 1TS, UK.*
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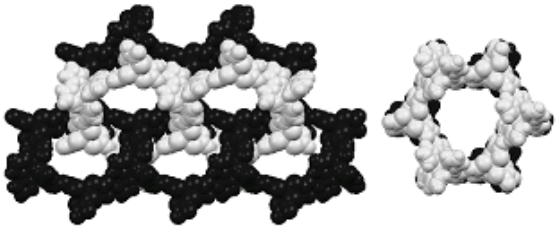
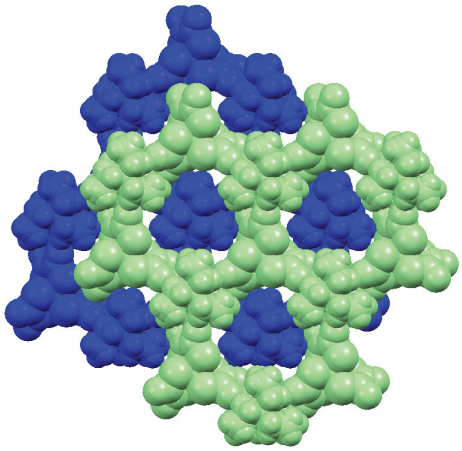
A series of cationic metallotectons containing 2,2′-biimidazole, ethylenediamine and sepulchrate ligands have been crystallized with anionic metallotectons with dithiooxalate and oxalate ligands. The D_3 metal complexes undergo molecular recognition to obtain a range of chicken-wire networks through persistent hydrogen-bonding patterns adopted by certain functional groups, which act as templates and rely on the robustness of such motifs to create new solid-state structures. The structures typically contain rings of alternating Δ-anions and Λ-cations and *vice versa.* The use of chiral complexes as tectons remains largely unexploited and can open new perspectives in controlling and directing the individual chelate rings and their relative stabilities. Here we show how the tecton stereochemistry, their supramolecular behaviour lead to formation of structures containing solvent-filled channel and / or occluded regions.



Structure Type A
*Iba*2

Structure Type E
*R*3



Keywords: chiral supramolecular chemistry; crystal engineering; octahedral metal complexes