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## Crystal and Molecular Structures of Sixteen Charge-assisted Hydrogen Bond-mediated Diisopropylammonium Salts From Different Carboxylic Acids

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### Abstract:

Cocrystallization of the commonly available organic amine, diisopropylamine, with a series of carboxylic acids gave a total of sixteen molecular salts with the compositions: diisopropylammonium 2-methyl-2-phenoxypropanoate [(Hdpa)<sup>+</sup> · (mpa)<sup>-</sup>, mpa<sup>-</sup> = 2-methyl-2-phenoxypropanoate] **(1)**, diisopropylammonium 2-methyl-2-(naphthalen-2-yloxy)-propionate [(Hdpa)<sup>+</sup> · (npa)<sup>-</sup>, npa<sup>-</sup> = 2-methyl-2-(naphthalen-2-yloxy)-propionate] **(2)**, diisopropylammonium indole-3-acetate [(Hdpa)<sup>+</sup> · (iaa)<sup>-</sup>, iaa<sup>-</sup> = indole-3-acetate] **(3)**, diisopropylammonium 4-chlorophenoxyacetate [(Hdpa)<sup>+</sup> · (cpa)<sup>-</sup>, cpa<sup>-</sup> = 4-chlorophenoxyacetate] **(4)**, diisopropylammonium 2,4-dichlorophenoxyacetate [(Hdpa)<sup>+</sup> · (dcpa)<sup>-</sup>, dcpa<sup>-</sup> = 2,4-dichlorophenoxyacetate] **(5)**, diisopropylammonium 4-hydroxybenzoate [(Hdpa)<sup>+</sup> · (hba)<sup>-</sup>, hba<sup>-</sup> = 4-hydroxybenzoate] **(6)**, diisopropylammonium 4-aminobenzoate [(Hdpa)<sup>+</sup> · (aba)<sup>-</sup>, aba<sup>-</sup> = 4-aminobenzoate] **(7)**, tetra(diisopropylammonium) tetra(1-hydroxy-2-naphthoate) trihydrate [(Hdpa)<sub>4</sub><sup>4+</sup> · (2-hnpa)<sub>4</sub><sup>4-</sup> · 3H<sub>2</sub>O, 2-hnpa = 1-hydroxy-2-naphthoate] **(8)**, diisopropylammonium 2-hydroxy-3-naphthoate [(Hdpa)<sup>+</sup> · (3-hnpa)<sup>-</sup>, 3-hnpa<sup>-</sup> = 2-hydroxy-3-naphthoate] **(9)**, diisopropylammonium 5-bromosalicylate [(Hdpa)<sup>+</sup> · (bsa)<sup>-</sup>, bsa<sup>-</sup> = 5-bromosalicylate] **(10)**, diisopropylammonium 3,5-dinitrobenzoate [(Hdpa)<sup>+</sup> · (dna)<sup>-</sup>, dna<sup>-</sup> = 3,5-dinitrobenzoate] **(11)**, diisopropylammonium 3,5-dinitrosalicylate [(Hdpa)<sup>+</sup> · (3,5-dns)<sup>-</sup>, 3,5-dns<sup>-</sup> = 3,5-dinitrosalicylate] **(12)**, tetra(diisopropylammonium) bis(m-phthalate) monohydrate

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