Poster Presentation

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Synthesis and structural characterization of four related α-phosphonates

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α-Aminophosphonates are structural analogues of natural amino acids. They have been the subject of considerable attention due to their potential biological activities. They may be applied as enzyme inhibitors , antibacterial agents , antitumour agents or antiviral agents [4]. α -Aminophosphonates can be synthesized via the Kabachnik–Fields reaction [5] by the coupling of a carbonyl, an amine and a dialkyl phosphite unit. We report here the synthesis and crystal structures of four diethyl [(arylamino)(4-ethynylphenyl) methyl] phosphonate derivatives, namely diethyl [(4-bromoanilino) (4-ethynyl-phenyl) methyl] phosphonate, (I), diethyl ((4-chloro-2-methyl-anilino) {4-[2-(trimethylsilyl) ethynyl] phenyl} methyl) -phosphonate, (II), diethyl ((4-fluoroanilino) {4-[2-(trimethyl-silyl) ethynyl] phenyl} methyl) phosphonate, (III), and diethyl [(4-ethynylphenyl) (naphthalen-2-ylamino) methyl] phosphonate, (IV). The X-ray analysis confirms the structures found (Fig. I-IV), the products was crystallized by slow evaporation of ethyl acetate/n-hexane solution [3].

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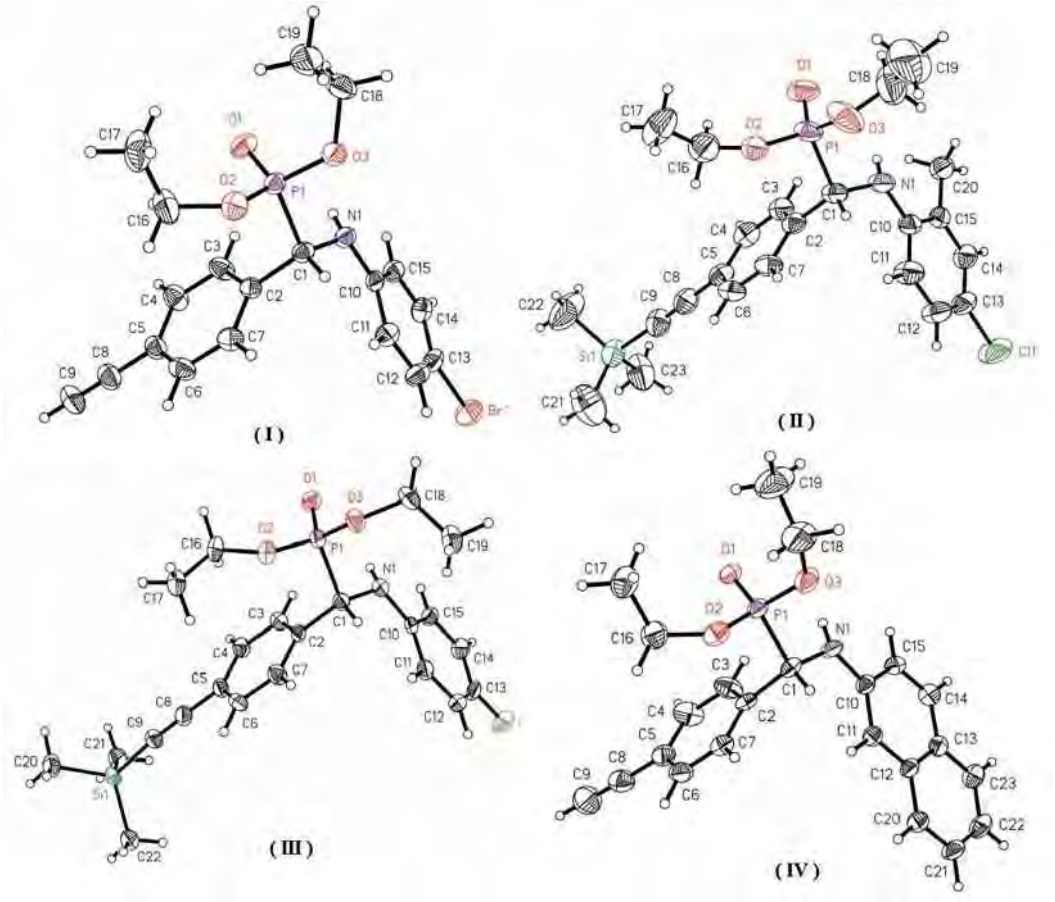

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