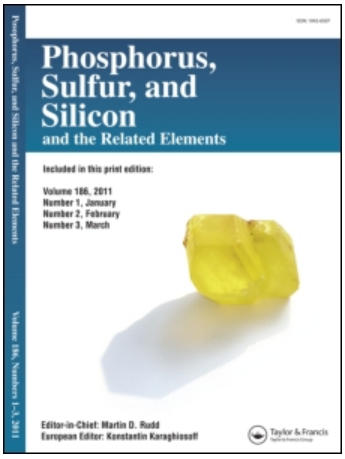

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Fluorinated 1-Methylaminoalkylphosphonates. Interaction with Ammonia and Methylamine

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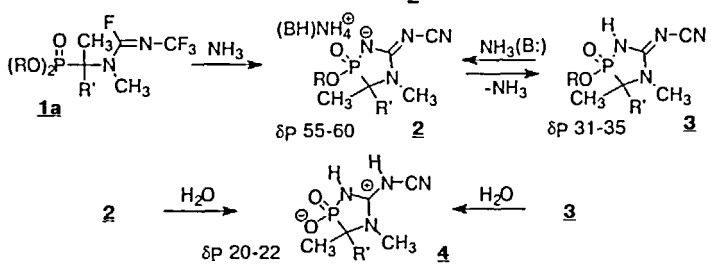
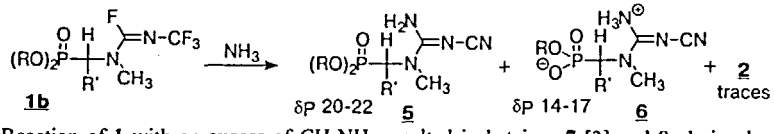
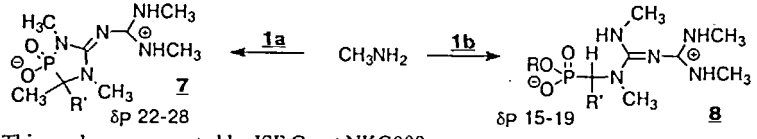
Previously we reported that fluorinated aminophosphonates **1a** react with NH_3 to form heterocyclic salts **2** [1,2]. As was found, **2** eliminate NH_3 under heating to give neutral 1,4,2-diazaphospholines **3**. The reverse reaction of **3** with NH_3, any amines, and alkalis led to the same aniones **2**. Salts **2** and diazaphospholines **3** are hydrolyzing by moisture of ammonia or solvents into betaines **4**.



Aminophosphonates **1b** (H at C^1) react with NH_3 to form, on the whole, linear guanidinophosphonates **4** and **5**, while **2** were detected as traces.



Reaction of **1** with an excess of CH_3NH_2 resulted in betaines **7** [3] and **8** obviously through the same stages.



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