Syntheses and Properties of Di- and Tricationic Hetarenium-Substituted Pyrimidines*

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2,4-Dichloro-, 4,6-dichloro-, 2,4,6-trichloro- and tetrachloropyrimidine undergo nucleophilic displacements by 4-(dimethylamino)pyridine to give (pyrimidine-2,4-diyl)-1,1'-bis[4-(dimethylamino)pyridinium] dichloride, (pyrimidine-4,6-diyl)-1,1'-bis[4-(dimethylamino)-pyridinium] dichloride, (pyrimidine-2,4,6-triyl)-1,1',1"-tris[4-(dimethylamino)pyridinium] trichloride, and (5-chloropyrimidine-2,4,6-triyl)-1,1',1"-tris[4-(dimethylamino)pyridinium] trichloride, respectively. Nucleophilic substitutions of the pyridinium substituents by O- and S-nucleophiles to functionalized pyrimidines are examined.

Key words: Nucleophilic Substitution, Thioethers, DMAP, Chloropyrimidines