Unexpected Sodium Methoxide-catalyzed Rearrangement of 6-Amino-5-aroyl-1,3-dimethyluracils to Form Novel Cinnamoamides

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Dedicated to Professor Gerhard Maas on the occasion of his 60th birthday

A synthetic access to novel cinnamoamides **6** was discovered by chance and explored following a two-step route. Compounds **3** were available from 6-amino-1,3-dimethyluracil (**1**) by acylation using benzoyl chlorides **2** and subsequently converted to 2-cyano-3-(*N*-methylamino)cinnamic acid methyl amides **6**. This sodium methoxide-catalyzed reaction involves ring opening of the pyrimidine ring followed by elimination of CO to form dimethyl carbonate and rearrangement. The application of **6** as potential catecholamine-*O*-methyl transferase (COMT) inhibitors for the treatment of Parkinson's disease is discussed.

Key words: Acylation, Rearrangement, 6-Amino-5-aroyl-1,3-dimethyluracil, Cinnamonitriles, COMT Inhibitor