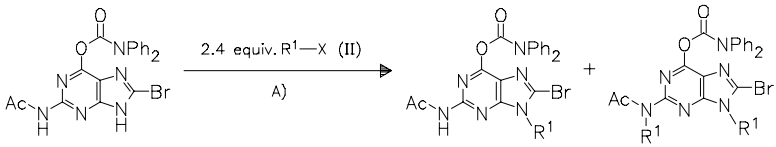
Purine derivatives

R 0540

05- 176

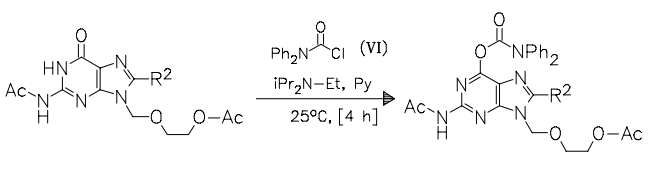
The Determinative Influence of the O^6-(Diphenylcarbamoyl) Group on the Exocyclic Nitrogen Benzylation in 2-Amino-6-oxopurine Derivatives. — The synthesis of novel 2-benzylamino-6-oxopurines is achieved using a temporary O^6-(diphenylcarbamoyl) protecting group, which possesses a decisive role for benzylation of the exocyclic amino group. — (MADRE*, M.; PETROVA, M.; BELYAKOV, S.; Synthesis 2008, 19, 3053-3060; Latv. Inst. Org. Synth., Riga 1006, Latvia; Eng.) — Mais



I III IV

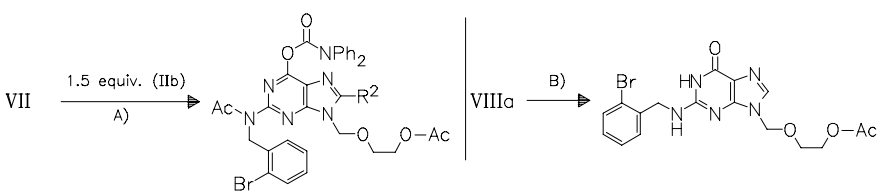
	III	IV
a R^1: —Bn ; X: —Br	29%	58%
b R^1: —CH_2—(3-Br-Ph) ; X: —Br	0%	78%
c R^1: —CH_2—(2-NO_2-Ph) ; X: —Br	0%	70%
d R^1: —CH_2—(2-C(=O)—O—Me-Ph) ; X: —Br	0%	71%
e R^1: —CH_2—O—Bn ; X: —Cl	76%	0%
f R^1: —CH_2—CO—Ph ; X: —Br	75%	0%

A): K_2CO_3, DMF, 25 –> 75°C, [6–8 h]



V VII

a R^2: —H 77%
b R^2: —S—Bn 84%

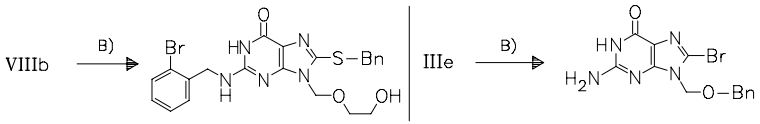


VII VIII VIIIa IX

a 70%
b 78%

75%

B): sat. NH_3, EtOH, 25°C –> reflux, [17 h]



X 79%

XI 80%