

REACTION OF 7-METHOXY-1-PHENYL-1H-1,2,3-TRIAZOLO[4,5-d]PYRIDAZINE  
5-OXIDE WITH NUCLEOPHILES

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As a part of series of studies on the chemistry of the condensed pyridazines, chemical properties of 7-methoxy-1-phenyl-1H-1,2,3-triazolo[4,5-d]pyridazine 5-oxide(II), obtained in the reaction of 7-methoxy-1-phenyl-1H-1,2,3-triazolo[4,5-d]pyridazine(I) with m-chloroperbenzoic acid, were studied.

II reacted with nucleophiles to give 4,7-disubstituted 1-phenyl-1H-1,2,3-triazolo[4,5-d]pyridazines or 4,5-disubstituted 1-phenyl-1H-1,2,3-triazoles.

Nucleophiles[Products] ; phosphoryl chloride[III], thionyl chloride, sulfuryl chloride[III and IV], tosyl chloride[IV, V and VI(C<sub>18</sub>H<sub>16</sub>ClN<sub>3</sub>O<sub>4</sub>S)], phenyl isocyanate[VII and a mixture of structure unknown products], sodium hydroxide[VIII], acetophenone in the presence of sodium methoxide[VIII and IX], methylmagnesium iodide[Xa], ethylmagnesium bromide[Xb], acetic anhydride[XI and XII], acetyl chloride[XIIIa], benzoyl chloride[XIIIb], benzoyl chloride and potassium cyanide[V, XIV(C<sub>22</sub>H<sub>18</sub>N<sub>6</sub>O<sub>4</sub>) and XV(C<sub>18</sub>H<sub>15</sub>NO<sub>4</sub>)], dimethyl acetylenedicarboxylate[XVI and XVII], methyl propiolate[XVIII and XIX].

In this lecture, we would show the reaction mechanism for the formation of the products.

