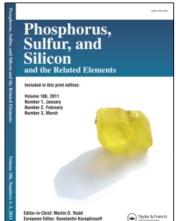
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Kinetics and Mechanism of the Insertion Reaction of Arylisocyanates on C--C Bond of Zwitter-Ions

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KINETICS AND MECHANISM OF THE INSERTION REACTION OF ARYLISOCYANATES ON C-C BOND OF ZWITTER-IONS

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Kinetics and mechanism of a new insertion reaction of arylisocyanates on C—C bond of phosphorus (Scheme 1) and organic (Scheme 2) zwitterions have been investigated on example of following reactions.

$$R_{3}PCH_{2}C - R' + Ar-NCO \longrightarrow R_{3}PCH_{2}C - R'$$

$$I COR''$$

$$Ar - N - COR''$$

$$Ar - N - COR''$$

R = i-Pr, Bu; R' = CN, C(O)Me; R'' = Me, OEt

SCHEME 1

$$\begin{bmatrix}
PhC - CN \\
I OOMe
\end{bmatrix}
Na + Ar - NCO$$

$$\begin{bmatrix}
PhC - CN \\
C = O \\
Ar - N - COOMe
\end{bmatrix}
Na^{\oplus}$$

$$IV$$

SCHEME 2

Kinetic data obtained show that the reaction has the common character and proceeds through the highly-organized four-membered cyclic transition state.

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