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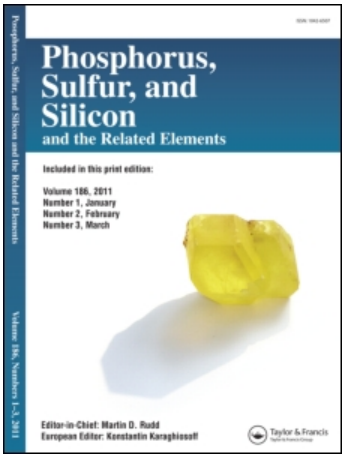

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The New Amide Bond Formation Using Trialkylphosphine

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THE NEW AMIDE BOND FORMATION USING TRIALKYLPHOSPHINE

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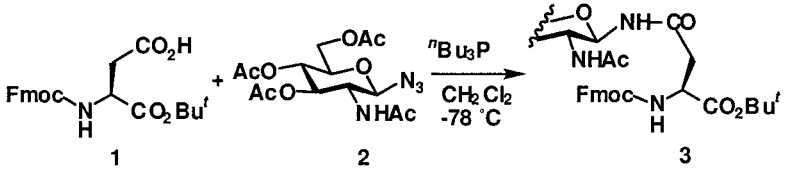
In a study of glycopeptide, glycosylasparagine **3** was obtained in good yield by reacting aspartic acid derivative **1** and glycosyl azide **2** in the presence of trialkylphosphine at $-78^{\circ}C$.[1,2] We found that this reaction proceeded through a concerted intramolecular reaction where elimination of N_2, amide formation, and elimination of phosphine oxide occur simultaneously. The Staudinger-type amide formation proceeds via a phosphazene intermediate.[3] However, in the new reaction presented herein, phosphazene derivative of **2** did not react with **1** at all.

From this result, we suggested this reaction is not a Staudinger-type reaction and a new reaction for amide formation.



1 2 3

SCHEME 1

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