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Universal Solid Supports for Synthesis of Oligonucleotides with Terminal 3'-Phosphates

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UNIVERSAL SOLID SUPPORTS FOR SYNTHESIS OF OLIGONUCLEOTIDES WITH TERMINAL 3'-PHOSPHATES

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Oligonucleotides bearing 3'-phosphates groups are required for studying chemical ligation (1), thermodynamic and spectroscopic analyses (2). Synthetic methods for oligodeoxynucleotides with terminal 3'-phosphates were already established either in solution (3) or on solid supports (4,5).

In this communication we describe the preparation of glass supports with degradable linkers I which allow an easy access to 3'-phosphorylated oligonucleotides by a phosphoroamidite method.

- N. I. Sokolova, D. T. Ashribekova, N. G. Dolinnaya,
 Z. A. Shabarova, FEBS Lett <u>2</u>32, 153-155 (1988).
- (2) M. Bower, M. F. Summers, B. Kell, J. Hoskins, G. Zon,W. D. Wilson, Nucl. Acids Res. <u>15</u>, 3531 (1987).
- (3) E. M. Volkov, S. M. Gryaznov, N. F. Krynetskaya, T. S. Oretskaya, V. K. Potapov, Khim. Prir. Soedin. SSSR 2, 228 (1986).
- (4) E. Felder, B. Schwyzer, R. Charubala, W. Pfleiderer, B. Schultz, Tetrahedron Lett. <u>25</u>), 3967-3970 (1984).
- (5) R. Lohrman, J. Ruth, DNA, <u>3</u>, 122 (1984).