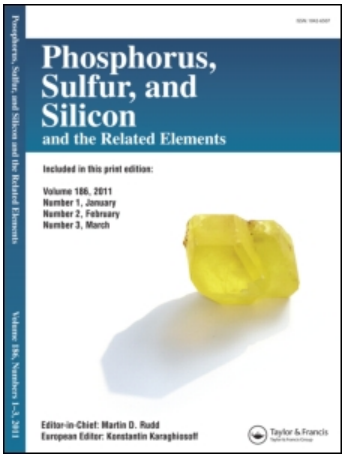

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Synthesis of Naturally Occurring Helminthic Phosphodiesters and Related Analogues

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Synthesis of Naturally Occurring Helminthic Phosphodiesters and Related Analogues

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Our preliminary findings in the use of 1,3,2-oxazaphospholidin-2-ones (III) as useful synthons in the synthesis of naturally occurring helminthic (worm) phosphodiesters [i.e. Opheline(II, R=Me)and serine ethanolamine phosphate (I, R=$NH_2(CO_2H)CHCH_2$,R'=H)]and of related compounds are reported. The 1,3,2-oxazaphospholidin-2-ones can be synthesised by routes A and B; once formed these can be ring-opened by acid treatment which causes exclusive N-P bond fission yielding the phosphodiesters (I). Guanidinated phosphodiesters (II) have been made by reacting the corresponding phosphodiesters (I,R'=H) with O-methylisourea.