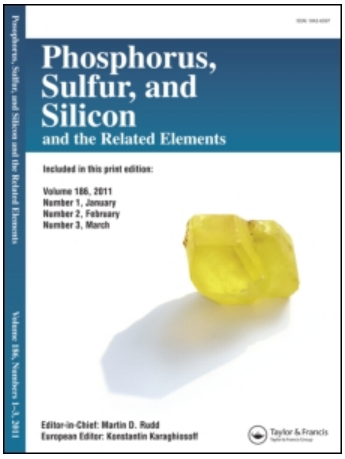

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C. Devendranath Reddy[a]; K. V. Raghu[a]
[a] Department of Chemistry, Sri Venkateswara University, Tirupati, India

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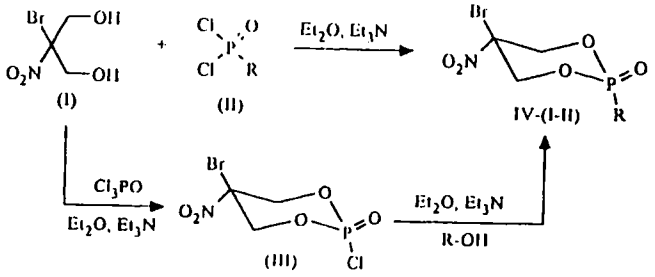
Synthesis of 5-Bromo-5-Nitro-2-Aryloxy/Alkyl 1,3,2-Dioxaphosphorinane 2-Oxides

C. DEVENDRANATH REDDY and K.V. RAGHU

Department of Chemistry, Sri Venkateswara University, Tirupati – 517 502, India

A series of the title compounds **IV** (1-9) are prepared by the addition of an anhydrous ether solution of II to a cooled (-20°C) and stirred dry ether solution of I and triethylamine. The reaction mixture, after stirring for 5-6 hours at room temperature and filtration followed by evaporation of the solvent gave an yellow solid. On recrystallisation of it from benzene - hexane mixture (1:1) afforded the title compounds. $IV_{(10\&11)}$ are prepared through the monochloride (III) route since the corresponding dichloridates are difficult to prepare due to their thermal sensitivity and corrosive nature.



R	R	R	R
1. CCl_3	4. OC_6H_5	7. OC_6H_4-CH_3(4')	10. OC_6H_4-NO_2(4')
2. C_3H_7	5. OC_6H_4-CH_3(2')	8. OC_6H_4-Cl(2')	11. OC_6H_4-$C(CH_3)$(4')
3. C_4H_9	6. OC_6H_4-CH_3(3')	9. OC_6H_4-Cl(4')	

Their structures are characterised by IR, NMR (^1H, ^{13}C & ^{31}P) and mass spectral data. All of them exhibited hundred percent activity against all fungal species studied in both 500 and 200 ppm concentrations, thus opening the possibility of their application as efficient fungicides.