^{13}C NMR spectrum: 165.91 (s, C=O), 64.32 (t, J = 149 Hz, CH_2O), 41.91 (t, J = 152 Hz, CH_2Cl), 107.04-102.41 ppm (m, C_6H_5).

Compound (XVII): yield 8%. PMR spectrum (CCl_4): 4.56 (2H, t, J = 6 Hz, CH_2O), 3.77 (2H, t, J = 6 Hz, CH_2Cl), 4.66 (2H, s, $CH_2C{=}O$), 7.32 ppm (5H, m, C_6H_5). ^{13}C NMR spectrum: 165.98 (s, C=O), 64.41 (t, J = 149 Hz, CH_2O), 41.28 (t, J = 151 Hz, CH_2Cl), 65.28 (t, J = 149 Hz, $CH_2C{=}O$), 107.10-102.44 ppm (m, c_6H_5).

Compound (IX): yield 8%, bp 97-99°C (21 mm).

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REACTION OF TETRANITRODIBENZO-8-CROWN-6 WITH SODIUM ALKOXIDES

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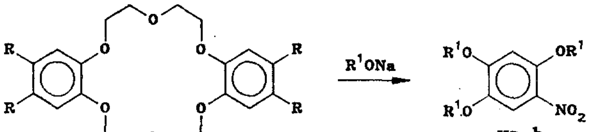
o-Dinitrobenzenes are known to readily undergo nucleophilic substitution. We have found that the reaction between tetranitrobenzo-18-crown-6 (Ib) and an excess of sodium alkoxide in DMSO at room temperature gives, not the expected substitution product, but the 1-nitro-2,4,5-trialkoxybenzene (II). Under these conditions, (Ia) does not undergo cleavage.



IIa,b

I a b

I a R=H; b R=NO_2; II a R^1=CH_3; b R^1=C_2H_5

The reaction products were isolated by chromatography on silica gel. Compound (IIa): yield 56%, mp 112°C. PMR spectrum ($CDCl_3$): 3.87 and 3.93 (9H, s, CH_3), 6.55 and 7.58 ppm (2H, s, =CH). Mass spectrum: m/z 213 (M^+). Compound (IIb): yield 54%, mp 95°C. PMR spectrum ($CDCl_3$): 1.43, 1.47, and 1.49 (9H, t, CH_3), 4.07 and 4.14 (6H, q, CH_2), 6.52 and 7.57 ppm (2H, s, =CH). Mass spectrum: m/z 225 (M^+). The elemental analyses for (IIa, b) were in accordance with the calculated values.

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