several portions of ether. The combined ethereal extracts were carefully washed with water, 3 N hydrochloric acid, and dilute sodium bicarbonate solution. Removal of the solvent after drying over anhydrous magnesium sulfate gave 100 mg. of crude oxidation product. Elution of the crude product from a 1.5 x 15 cm. column of florex with benzene gave 77 mg. (51 per cent yield) of the cis-diketone 75, as evidenced by comparison of the infrared spectrum with that of the authentic sample of 75 obtained in acyloin condensation I. The 2,4-dinitrophenylosazone derivative was prepared and recrystallized once from chloroform-ethanol and three times from dioxane-water to m.p. 236-236.5°C. (dec.). The infrared spectrum of the derivative was identical to that of the cis-diketone 2,4-dinitrophenylosazone 76, m.p. 236-237°C. (dec.), obtained in acyloin condensation I, and the mixture melting point of the two samples was undepressed. The starting trans-dipropionic acid 53 was purified more carefully before attempting additional condensation reactions in order to eliminate, or at least minimize, contamination of the product by the cis isomer.

Purification of the trans-dipropionic acid 53 from Wolff-Kishner reduction of the ketodinitrile 58

Crude trans-dipropionic acid 53 (50 g.), from the