The product was poured into 150 ml. of ice water. The benzene layer was separated, and the aqueous layer was extracted with additional benzene. The combined benzene extracts were washed with dilute sodium bicarbonate solution and dried over anhydrous magnesium sulfate. The residue obtained upon removal of the solvent at reduced pressure was dissolved in 100 ml. of petroleum ether (b.p. 20-40°C.) and filtered through a column of 50 g. of activity grade I alumina. Elution was continued with the same solvent until no residue was obtained upon evaporation of the eluate. Removal of the solvent at reduced pressure gave 31.8 g. (91 per cent yield) of dimethyl trans-1,3-cyclopentanediropionate (70), $n_D^{20}$ 1.4572.

**Dimethyl cis-1,3-cyclopentanediropionate (71).** Following the same procedure as described for the preparation and purification of the trans-dimethyl ester (70), 29.0 g. (0.136 mole) of pure cis-dipropionic acid 52 was refluxed for 8 hours with 17.5 g. (0.55 mole) of reagent grade methanol and 7.2 g. (4 ml.) of concentrated sulfuric acid in 60 ml. of benzene. Evaporation of the petroleum ether eluate afforded 29.3 g. (90 per cent yield) of dimethyl cis-1,3-cyclopentanediropionate (71), $n_D^{20}$ 1.4568.

**trans-1,3-Cyclopentanediipropanol (79). Procedure A.**