(m.p. 100-101°C.) was 88-94°C. The infrared spectra of the two samples of the trans-dipropionic acid 52 were identical except for absorption band intensities.

**Diethyl 2,5-cyclopentanonedipropionate (63).**-The ketodinitrile 58 (140 g., 0.74 mole) was mixed with 170 ml. (3 moles) of absolute ethanol and 300 ml. of dry benzene. Concentrated sulfuric acid (289 g., 3.0 moles) was added cautiously, and the mixture was refluxed for 12 hours after the initial spontaneous reaction subsided. After cooling to room temperature, the reaction product was poured into 800 ml. of ice and water, and the benzene layer was separated. The aqueous layer was then extracted with several portions of ether. The combined ethereal extracts were washed with water and dried over anhydrous magnesium sulfate. The solvent was removed to give 181 g. (87 per cent yield) of crude 63. Distillation of this material afforded pure diethyl 2,5-cyclopentanonedipropionate (63), b.p. 170-171°C./0.55 mm., \( n_\text{D}^{20} \) 1.4612; lit.76 b.p. 161-162°C./0.4 mm., \( n_\text{D}^{20} \) 1.4633.

**Diethyl 2,5-cyclopentanolidipropionate (64).**-The ketodiesteer 63 was reduced with sodium borohydride in ethanol according to the procedure of Leonard, Conrow, and Fulmer.77 To a solution of 48 g. (0.17 mole) of 63 in 400 ml. of absolute ethanol cooled in an ice bath, was