

DEFENSIVE PUBLICATION

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CATALYTIC HYDROGENATION

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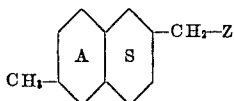
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No Drawing, 18 Pages Specification

Compounds having the structure



wherein



is selected from a benzene nucleus and a cyclohexane nucleus;



represents a cyclohexane nucleus and Z is —H or —OH, may be prepared in high yields by reducing a dialkyl 1,2,3,4-tetrahydro - 2,6 - naphthalenedicarboxylate in the presence of hydrogen and a hydrogenation catalyst such

as copper chromite. The reaction may be carried out at a temperature of about 100° C. to 350° C., preferably about 140° C. to 220° C. at a pressure of about 500 to 6000 p.s.i., preferably about 1500 to 3500 p.s.i.

In another embodiment of the invention, the compounds are prepared in a two-stage reduction, the first stage comprising reducing dialkyl 2,6-naphthalenedicarboxylate in the presence of hydrogen and a nickel catalyst, such as Raney nickel to provide high selective yields of dialkyl 1,2,3,4-tetrahydro-2,6-naphthalenedicarboxylate which is subsequently reduced in a second stage reduction as aforementioned. The first reduction may be carried out at a temperature of about 25° C. to 100° C., preferably 70° C. to 85° C. at a pressure of about 100 to 5000 p.s.i., preferably 1000 to 3000 p.s.i.

Novel monomers may be prepared from the monoalcohols resulting from the reduction of the invention by condensation with acrylic acids and esters thereof such as acrylic acid, methacrylic acid, ethacrylic acid, methyl methacrylate, ethyl methacrylate and ethyl acrylate. Homopolymers or copolymers of the novel monomers may be prepared by heating the monomers by themselves or with dissimilar polymerizable ethylenically unsaturated monomers in the presence of free-radical initiating catalysts such as hydrogen peroxide, benzoyl peroxide, lauroyl peroxide, sodium persulfate, potassium persulfate and peracetic acid, for example.

The polymers which can be prepared from the novel monomer compounds of the invention in the manner just described can be used to prepare photographic film supports using known techniques.