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[54] **FLUORESCENT MONITORING METHOD FOR POLYMERIZATION REACTIONS**

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[58] **Field of Search** 436/34, 56, 85, 172, 436/903; 534/588, 689

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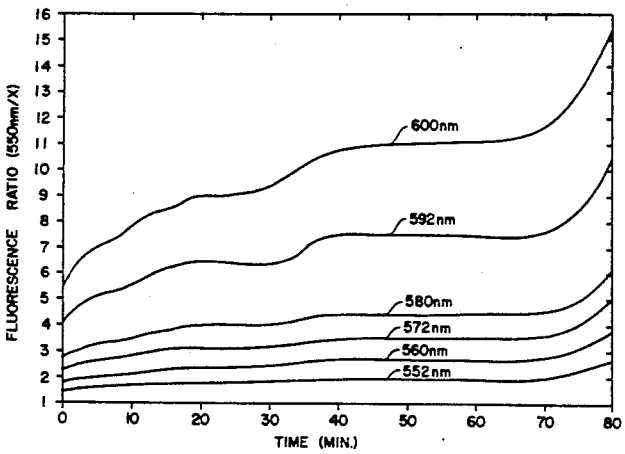
[57] **ABSTRACT**

Disclosed is a method for measuring the rate and extent of cure of a resin system undergoing polymerization which entails adding at least one multifunctional fluorescent dye to the resin system undergoing polymerization, the dye being one which initially forms a complex with itself or other components of the system and subsequently chemically reacts with the resin and whose degree of fluorescent emission varies in accordance with the degree of reaction with the resin, polymerizing the resin, simultaneously measuring the fluorescence of the resin system, and comparing the measured fluorescence with pre-existing data correlating the observed values with the rate and extent of polymerization, thereby enabling the rate and extent of polymerization of the resin system under evaluation to be determined.

18 Claims, 9 Drawing Sheets