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(54) Title: SYNTHESIS OF METHYLENE MALONATES USING RAPID RECOVERY IN THE PRESENCE OF A HEAT TRANSFER AGENT

(57) Abstract: The present invention provides a method of making a methylene malonate monomer that includes the steps of reacting a malonic acid ester with a source of formaldehyde optionally in the presence of an acidic or basic catalyst and optionally in the presence of an acidic or non-acidic solvent to form reaction complex. The reaction is optionally performed in the presence of or contacted with an energy transfer means such as a heat transfer agent, a heat transfer surface, a source of radiation or a laser such that reaction complex is substantially vaporized to produce a vapor phase comprising methylene malonate monomer which may be isolated. The present invention further provides methylene malonate monomers prepared by the method of the invention, as well as compositions and products formed from the methylene malonate monomers, including monomer-based products (e.g., inks, adhesives, coatings, sealants or reactive molding) and polymer-based products (e.g., fibers, films, sheets, medical polymers, composite polymers and surfactants).



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