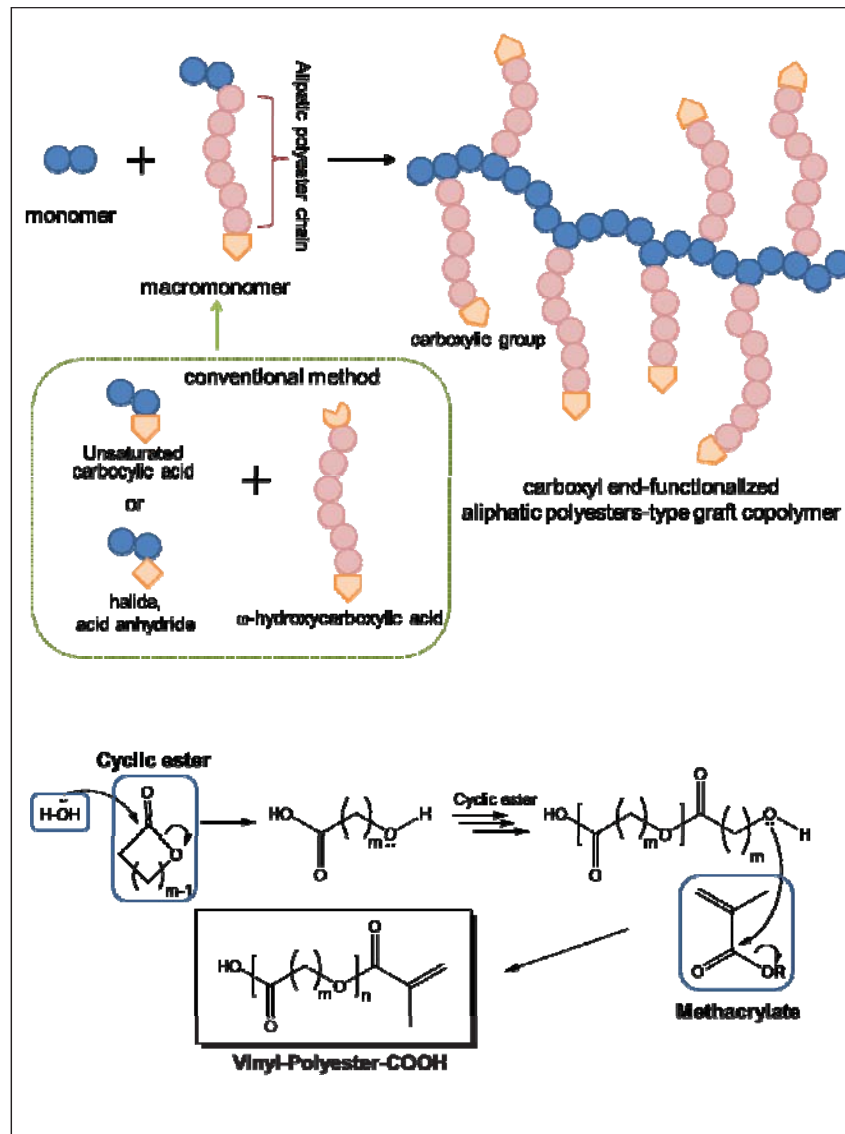


# Synthesis of Carboxyl End-functionalized Aliphatic Polyesters

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## Content:

Graft copolymers are prepared by monomer and polymerizable group end-functionalized polymer, namely macromonomer. Polymerization of carboxyl end-functionalized vinyl monomers used as macromonomers gave graft copolymers having carboxyl group at the side chain easily. The carboxyl functionalized graft copolymers are used for high-functional materials such as resist material, cross-linking agent, or thermosetting coating. Especially, carboxyl end-functionalized aliphatic polyesters-type vinyl monomers (Vinyl-Polyester-COOH) are important in the field. New synthesis method without using halide or acid anhydride are required from the perspective of green chemistry.

So, carboxyl end-functionalized aliphatic polyesters were prepared by ring-opening polymerization of cyclic esters and transesterification between methacrylates and the aliphatic polyesters obtained in the presence of *tert*-butylzincate.

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