

POLYCARBONATE POLYOL COMPOSITIONS AND METHODS

ABSTRACT OF THE DISCLOSURE

- In one aspect, the present disclosure encompasses polymerization systems for the
- 5 copolymerization of CO₂ and epoxides comprising 1) a catalyst including a metal coordination compound having a permanent ligand set and at least one ligand that is a polymerization initiator, and 2) a chain transfer agent having two or more sites that can initiate polymerization. In a second aspect, the present disclosure encompasses methods for the synthesis of polycarbonate polyols using the inventive polymerization systems.
- 10 In a third aspect, the present disclosure encompasses polycarbonate polyol compositions characterized in that the polymer chains have a high percentage of –OH end groups and a high percentage of carbonate linkages. The compositions are further characterized in that they contain polymer chains having an embedded polyfunctional moiety linked to a plurality of individual polycarbonate chains.
- 15 (no suitable figure)