Novel Polymers and Polymeric Materials Based on the Renewable Compounds, Eugenol and Iso-Eugenol (RFT-423)

Invention Summary

Due to the finite supply of fossil resources and the growing environmental concern, there is a major need for chemicals and materials derived from renewable resources. Aromatic building blocks, such as phenols, are particularly important and can be derived from renewable sources. Chisholm et al are the first to convert eugenol and iso-eugenol into vinyl ether monomers via reaction of the hydroxyl group. The result is soluble, processable linear polymers that retain the allyl group for crosslinking reactions and incorporation of other functional groups.

Benefits

- Novel bio-based resin
- Dramatic improvements over bisphenol-A epoxide resins
Applications in coatings, polymer composites, adhesives, encapsulants, and plastics

Technology

The technology includes the monomers, polymers, and copolymers in addition to the methods of making and using the materials.

Patents

This technology is the subject of issued US Patent Nos. 9,546,122 and 9,630,897 and is available for licensing/partnering opportunities.

Contact

Henry Nowak, Technology Manager
hnowak@ndsurf.org
(701)231-8173

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