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Highly effcient and versatile photoinduced thiol-ene crosslinking to prepare antibacterial and antioxidant materials derived terpenes

Estelle Renard

Bio-based networks derived from eugenol were prepared with an eco-friendly process by photoactivated thiol-ene reactions. Allyl derivative eugenol, prepared by a nucleophilic substitution was combined with linalool, a monoterpene present in the lavender essential oil, well known for its antibacterial activity, with eugenol, or carvacrol, sustainable antioxidant molecule components of the essential oil of clove and oil of thyme, respectively. e photoactivated thiol-ene reaction is a quick room temperature straightforward way to obtain renewable cross-linked networks. Several systems have been developed including, covalent gra ing of linalool, eugenol, or inclusion of carvacrol moieties to obtain functional materials. Two bacteria strains were used *in vitro* to evaluate the resistance to bacterial adhesion and the DPPH method was used to c ierinf the antioxidanro