

Showcasing research from Dr. Ben Harvey's laboratory, Research Department, Chemistry Division, Naval Air Warfare Center, Weapons Division, China Lake, CA, USA. Image designed and illustrated by Dr. Kara Martin.

Highly efficient synthesis of sustainable bisphenols from hydroxycinnamic acids

Hydroxycinnamic acids, which can be derived from abundant lignocellulosic biomass, were converted to stilbene-based bisphenols by a two-step process consisting of catalyst-free thermal decarboxylation followed by [Ru]-catalyzed olefin metathesis. Yields of > 90% were achieved starting from the carboxylic acids. The bisphenols have applications as components of sustainable polymers, coatings, and thermosetting resins.



