

**Synthesis of new cardanol and cardol derivatives by allylation and regioselective cyclocarbonylation reactions.**

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**Abstract**

Palladium acetate [Pd(OAc)<sub>2</sub>] and 1,4-bis(diphenylphosphino)butane (dppb) are effective catalysts in cyclocarbonylation of allylic cardanol and cardol derivs., producing 7-membered ring lactones regioselectively in good yields. The 6-tert-butyl-2-(1-methylallyl)-3-n-pentadecylphenol exhibits excellent antioxidant activity, for potential use as stabilizer for polymers processed at high temps.