

Synthesis of unsaturated acids by 1,2-addition of formic acid to conjugated dienes catalyzed by palladium on carbon in the presence of mono and bidentate phosphines.

Vasapollo, Giuseppe; Somasunderam, Anoma; El Ali, Bassam; Alper, Howard. Dep. Chem., Univ. Ottawa, Ottawa, ON, Can.
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Abstract

Di- and trisubstituted 1,3-dienes are converted to γ,δ -unsatd. acids by use of formic acid, carbon monoxide, and catalytic quantities of Pd-C/PPh₃/Ph₂P(CH₂)₄PPh₂ in 1,2-dimethoxyethane. A β,γ -unsatd. acid was obtained from isoprene (a monosubstituted diene).