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Palladium-catalyzed 1,2-addition of organic halide and terminal alkyne to 7-oxabenzonorbornadiene; an efficient route to polyaromatic

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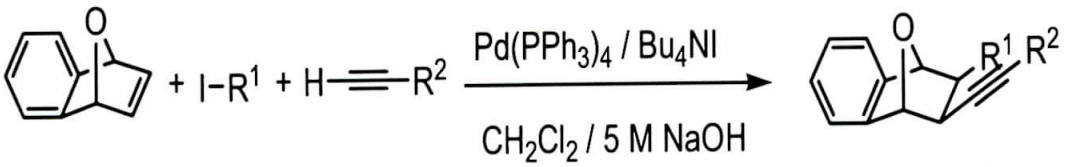
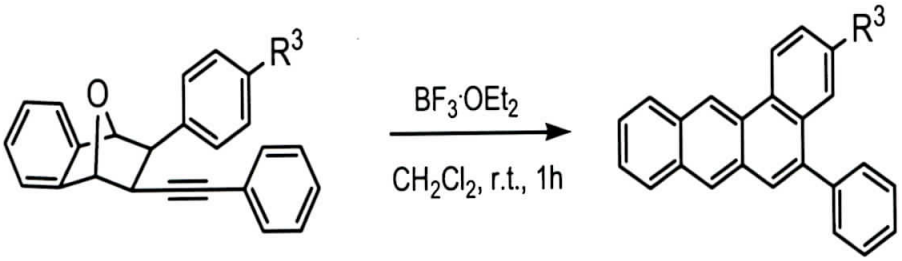
Abstract

A three-component coupling reaction of organic halides with oxabicyclic alkene and terminal alkynes was catalyzed by a palladium complex and a phase transfer agent in the presence of aqueous NaOH. The reaction gave a series of 5,6-disubstituated 7-oxabenzonorbornene derivatives in good yields. The disubstituted products from oxabenzonorbornadiene can be readily converted to polyaromatic hydrocarbons via a Lewis acid mediated deoxyaromatization reaction.





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