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Steviaside Containing Plant as Deconstractive (Degradative) Agent for Persistent Organic Pollutants

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ABSTRACT

Steviaside containing plant extracts have been used for degradation of persistent chloroorganic pesticides. Reactions between DDT and Steviaside or sum of extractive substances isolated from ground up part of plant Stevia were studied to give of less toxic DDE. Herein researches on studying interaction sum of polysaccharides of Stevia with DDT in various ratios resulted also. The GC-MS and GLC methods were used for analyzing degradation degree of pesticides and to determine obtained compounds. Treat HCCH by water extract of Stevia basically formed tetrachlorocyclo-hexadiene (HCH) with 86.9% yield and in particularly formed of tri-, tetrachlorobenzenes. The HCH formed in 79.7% on treat pesticide by 80% Steviaside. Degradation of HCCH and DDT by water extract of Stevia in a presence of Ana-basine in a ratio of 2:1:1 occur to degrade of HCCH up to 70-80%, and DDT on 25% - 30%.

KEYWORDS

Chlorinated Pesticides; Extracts of Stevia; Steviaside; Degradation

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