

PESTIC BIOCHEM PHYSIOL 21 (3). 1984. 291-300. CODEN: PCBPB

Language: ENGLISH

p-Chlorophenylmethylsulfide (PCPMS) [related to some insecticides and other pesticides] was enzymatically sulfoxidized to p-chlorophenylmethylsulfoxide (PCPMSO) in aerobic cotton, carrot and tobacco cell suspension cultures. Neither boiled nor freeze-killed cell cultures were competent to sulfoxidize PCPMS to PCPMSO. The sulfone, p-chlorophenylmethylsulfone (PCPMSO₂), was not produced in any of the 3 spp. The rates of PCPMS sulfoxidation, were cotton > carrot > tobacco. The apparent Km for carrot cells was 88 .mu.M PCPMS (14 .mu.g/ml), while the apparent Vmax was 7 nmol PCPMSO/mg whole cell protein/h. These rates of sulfide oxidation are higher than previously reported in intact plants.

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STABILIZATION OF THE SYNTHETIC MEDIA FOR PLANT TISSUE AND CELL CULTURES.

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BIOL PLANT (PRAGUE) 26 (2). 1984. 132-143. CODEN: BPABA

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In standard Murashige-Skoog [MS] medium, particularly at pH higher than 5.0 and after heat sterilization, there is a tendency for turbidity or a sediment to appear, and for the acidity to increase by 0.2-0.5 degrees pH.

The sediment is an amorphous precipitate of ferric phosphate and partly also of ferrous phosphate. In a stock Fe solution prepared by chelation of ferrous sulfate with an equimolar quantity of the complexone Na₂EDTA, up to 10% free Fe (II) ions could be detected. By titration of a concentrated complexion solution it was found that in the presence of an excess of Na₂EDTA (at the approximate molar ratio Fe (II): Na₂EDTA 1:2) chelation of this free Fe takes place to such an extent that its concentration falls to as little as 0.1%. Media with Fe stabilized in this way are quite clear and maintain the adjusted pH for up to several weeks. The heat sterilization, too, does not lead to any precipitation or to a shift in pH within the

broad range of adjusted values pH 4.8-6.0. An attempt was made to increase

C85-00615

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I N T E R - O F F I C E C O R R E S P O N D E N C E

Richmond, Virginia

To: Maria Shulleeta

Date: Feb. 20, 1985

From: Martha Smith

Subject: Literature Search of Carotenoids and Suspensions

Attached you will find the results of the literature search conducted on carotenoids and suspensions. I limited the search to the years 1970-1985 and to include no foreign languages.

I hope this information will be helpful to you. If you have any questions or need further assistance, call me at ext. 2164 or come by my office (T207)

Martha K. Smith

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