

[54] **MICROBIOLOGICAL OXIDATION REACTIONS USING PURIFIED MONOOXYGENASE ENZYME COMPONENTS**

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[58] **Field of Search** **435/189, 123, 148, 156, 435/157**

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ABSTRACT

[57] A purified hydroxylase enzyme component A of the methane monooxygenase enzyme isolated from the soluble fraction of *Methylobacterium organophilum* (CRL.26) (NRRL B-11,222) is found to contain three subunits. Any component A derived from methylo-trophs having the particular characteristics of this isolated component A may be employed in conjunction with the flavoprotein component C of the methane monooxygenase enzyme, preferably the flavoprotein component derived from the same organism, to catalyze the oxidation of various oxidizable organic substrates to their respective oxidation products. Preferably, the substrate is propylene.

15 Claims, No Drawings