Methods in Enzymology

Volume 188

HYDROCARBONS AND METHYLOTROPHY

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Volume 188

Hydrocarbons and Methylotrophy

EDITED BY

Mary E. Lidstrom

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Preface

In the past decade there has been an explosion of interest in organisms that grow on one-carbon compounds and in those that grow on higher hydrocarbons. This is a result of the commercial interest in the unique enzymes involved in these specialty metabolic pathways and to a growing understanding of the important role these organisms play in carbon cycling in nature. More recent interest in the use of these organisms and their enzymes for detoxification of hazardous waste has once again put the spotlight on these unique microorganisms. It seems clear that the study of bacteria involved in the utilization of one-carbon compounds and hydrocarbons is only beginning to realize its potential.

As in all biological systems, the ultimate understanding and exploitation of properties are highly dependent on information concerning the enzymes involved. This volume is the first comprehensive compilation of methods for the assay and purification of the enzymes involved in the utilization of reduced one-carbon compounds and higher hydrocarbons. In many cases, improved assay and purification methods are presented, while in others purification is reported for the first time.

In organizing and editing this volume, I have attempted to produce a source that will have value for researchers in academia, government, and industry alike. The information presented should provide a quick and handy reference guide for anyone with interest in these enzymes.

MARY E. LIDSTROM

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