

Polynuclear Aromatic Hydrocarbons:

Mechanisms, Methods
and Metabolism

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and Metabolism**

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PREFACE

This volume represents the results of the Eighth Polynuclear Aromatic Hydrocarbon Symposium and clearly demonstrates, more than any of the preceeding symposia, that the definition of the molecular activity of the polynuclear aromatic hydrocarbons is of significant importance to man. The evidence for the direct activity of PAH for the induction of cancer and pre-cancerous lesions is becoming overwhelming. Significant improvements in the ability to detect PAH in complex and unusual environments continue to build the body of evidence that indicates that this class of substances is a likely candidate as a major contributor to the increased rates of cancerous and pre-cancerous lesions in the industrialized nations of the world.

The Eighth Annual PAH Symposium was highlighted by overviews of the complex nature of the PAH and their interaction with the environment, and the human population that must live within it. We were presented with several new approaches and techniques for the measurement of PAH arising from various sources, and were shown the fate of those compounds in the environment. Much greater attention was placed on the ever increasing number of derivative PAH species as we begin to define the full range of modifications that the parent compounds can undergo. Numerous papers were presented defining the altered biological responses that were induced by PAH species. In some cases the newly defined, substituted PAH had strikingly greater effects than did the parent compound. Further, several laboratories have concentrated on the synthesis of these novel compounds, while others studied the actual formation processes that occur in the combustion of fossil fuels and how these compounds can be produced in that thermal environmental.

We continue to be impressed with the breadth and depth of the research in this field and commend our colleagues on the vigor and excellence of their research.

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