

PREFACE

Today's fast-paced growth of mechanistic information on enzyme reactions even astonishes those who have personally conducted decades of research on biological catalysis. The confluence of structural and dynamic information now provides a highly efficient means for discerning subtle features of enzyme catalysis, and the lessons learned from studies on a particular enzyme can no longer be viewed in isolation. Instead, these lessons serve as beacons that will illuminate and guide future explorations, often on entire classes of enzyme-catalyzed reactions. Part B in this *Advances in Enzymology* subseries entitled "Mechanism of Enzyme Action" continues the mission to provide new and valuable information about the nature of enzyme intermediates, the stepwise organochemical transformations of substrate to product, as well as the nature of barriers to interconversion of the various enzyme-bound species. Presented here are authoritative accounts by leading scientists who have taken this opportunity to share insights that are the product of highly imaginative and productive research. As has become the custom for *Advances in Enzymology*, these authors were encouraged to acknowledge the relevant findings from many research groups, while focusing greater emphasis on the scaffolding of logic that guided the research accomplished in their own laboratories. In this respect, the editor bears full responsibility for discouraging authors from providing exhaustive treatments that recapitulate findings already well described in earlier reviews on a particular topic.

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