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Special Issue: Miriam Hasson Memorial

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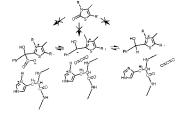
AlejandraYep, George L. Kenyon, Michael J. McLeish*

$$CH_3$$
 $COOH$
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 $COOH$
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Protein-enhanced decarboxylation of the covalent intermediate in benzoylformate decarboxylase—Desolvation or acid catalysis?

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Ronald Kluger*, Daria Yu



Characterization of benzaldehyde lyase from *Pseudomonas fluorescens*: A versatile enzyme for asymmetric C-C bond formation

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Elena Janzen, Michael Müller, Doris Kolter-Jung, Malea M. Kneen, Michael J. McLeish, Martina Pohl*

Benzaldehyde lyase (BAL) is a very useful biocatalyst to access chiral 2-hydroxyketones from aldehydes. Various biochemical data important for the application of BAL in chemoenzymatic synthesis are presented.

Acetylphosphinate is the most potent mechanism-based substrate-like inhibitor of both the human and *Escherichia coli* pyruvate dehydrogenase components of the pyruvate dehydrogenase complex

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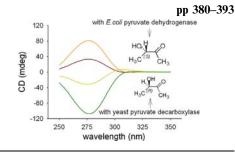
Natalia S. Nemeria, Lioubov G. Korotchkina, Sumit Chakraborty, Mulchand S. Patel, Frank Jordan*

Formation of LThDP and its phosphonate and phosphinate analogues.

thiamin diphosphate HNH HN
$$\stackrel{\text{N}}{\underset{\text{He}}{\overset{\text{N}}{\overset{\text{N}}{\overset{\text{H}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}}}{\overset{\text{N}}{\overset{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}{\overset{\text{N}}}}{\overset{N}}}{\overset{\text{N}}}}{\overset{\text{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}{\overset{N}}}{\overset{N}}{\overset{N}}{\overset{N}$$

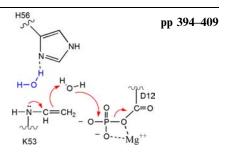
Synthesis with good enantiomeric excess of both enantiomers of α -ketols and acetolactates by two thiamin diphosphate-dependent decarboxylases

Ahmet Baykal, Sumit Chakraborty, Afua Dodoo, Frank Jordan*



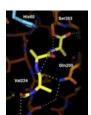
Diversification of function in the haloacid dehalogenase enzyme superfamily: The role of the cap domain in hydrolytic phosphorus—carbon bond cleavage

Sushmita D. Lahiri, Guofeng Zhang, Debra Dunaway-Mariano*, Karen N. Allen*



Direct crystallographic observation of an acyl-enzyme intermediate in the elastase-catalyzed hydrolysis of a peptidyl ester substrate: Exploiting the "glass transition" in protein dynamics

Xiaochun Ding, Bjarne F. Rasmussen, Gregory A. Petsko, Dagmar Ringe*

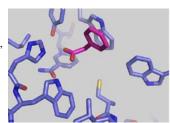


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Structural and thermodynamic studies of simple aldose reductase-inhibitor complexes

June M. Brownlee, Erik Carlson, Amy C. Milne, Erika Pape, David H.T. Harrison*



The structure and thermodynamics of phenylacetic acid derivatives bound to the active site of aldose reductase were studied to understand the basis for ARI binding affinity and to develop a platform for

investigating specificity.

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