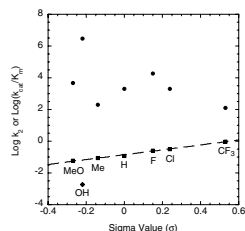


## Structure–activity analysis of base and enzyme-catalyzed 4-hydroxybenzoyl coenzyme A hydrolysis

pp 1–10

Feng Song, Zhihao Zhuang, Debra Dunaway-Mariano\*

The base-catalyzed hydrolysis rate constant of benzoyl-CoAs with different *para*-substituents is depended upon the *para*-substituent  $\sigma$  value, while thioesterase-catalyzed hydrolysis rate constant is not.

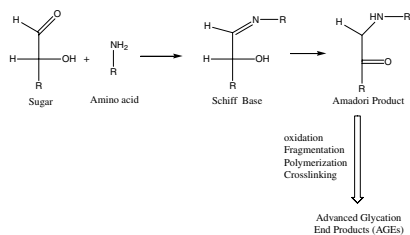


## Non-enzymatic interactions of glyoxylate with lysine, arginine, and glucosamine: A study of advanced non-enzymatic glycation like compounds

pp 11–24

Udayan Dutta, Menashi A. Cohenford, Madhumita Guha, Joel A. Dain\*

Advanced glycation end products (AGEs) are a complex and heterogenous group of compounds formed by the non-enzymatic reaction of reducing sugars/certain carbonyl containing compounds with amino acids and proteins.

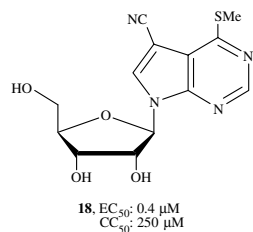


## Synthesis of pyrrolo[2,3-*d*]pyrimidine nucleoside derivatives as potential anti-HCV agents

pp 25–34

Chamakura V.N.S. Varaprasad,\* Kanda S. Ramasamy, Jean-Luc Girardet, Esmir Gunic, Vicky Lai, Weidong Zhong, Haoyun An, Zhi Hong

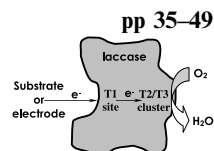
A series of Toyocamycin analogues were examined as potential anti-HCV agents.



### Characterization of two new multiforms of *Trametes pubescens* laccase

Sergey Shleev,\* Oxana Nikitina, Andreas Christenson, Curt T. Reimann, Alexander I. Yaropolov, Tautgirdas Ruzgas, Lo Gorton

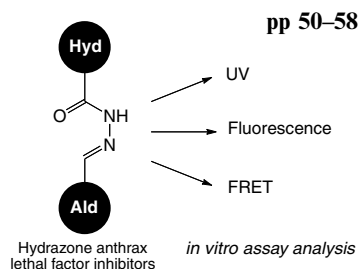
Electrochemical properties of two new multiforms of laccase from *Trametes pubescens* basidiomycete are presented. The previously proposed mechanism of oxygen bioelectroreduction by adsorbed fungal laccase was additionally confirmed. The assumed need for extracellular laccase to communicate directly and electronically with a solid matrix (lignin) during the course of lignin degradation is discussed and the possible role of multiforms of the enzyme is suggested.



### Mechanistic differences between *in vitro* assays for hydrazone-based small molecule inhibitors of anthrax lethal factor

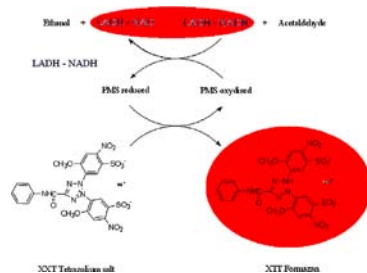
M. Leslie Hanna, Theodore M. Tarasow, Julie Perkins\*

Structure–activity study of hydrazones as inhibitors of anthrax lethal factor using three *in vitro* assays.



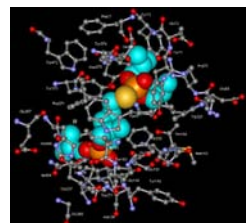
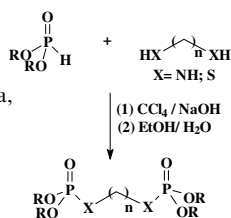
### Electron transfer from NADH bound to horse liver alcohol dehydrogenase (NAD<sup>+</sup>-dependent dehydrogenase): Visualisation of the activity in the enzyme crystals and adsorption of formazan derivatives by these crystals

Karine Pacaud-Mercier, Mohamed Blaghen, Kang Min Lee, Denis Tritsch, Jean-François Biellmann\*



### New bisphosphorothioates and bisphosphoroamidates: Synthesis, molecular modeling and determination of insecticide and toxicological profile

Viviane M.R. dos Santos, Carlos Mauricio R. Sant'Anna, Gonzalo E. Moya Borja, Amanda Chaaban, Wellington S. Côrtes, João Batista N. DaCosta\*

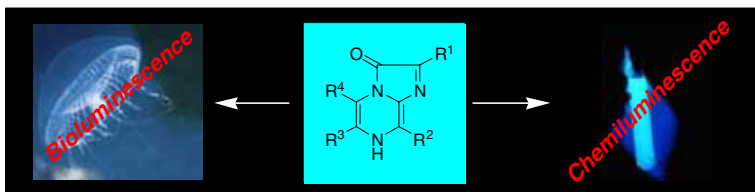


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**REVIEW****Luminescence of imidazo[1,2-*a*]pyrazin-3(7*H*)-one compounds**

pp 82–111

Katsunori Teranishi\*



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