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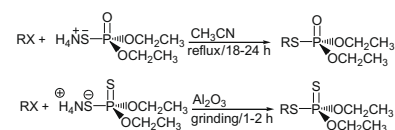
Preliminary Communications

Synthesis of novel phosphorothioates and phosphorodithioates and their differential inhibition of cholinesterases

pp 101–105

Babak Kaboudin*, Saeed Emadi* and Atefeh Hadizadeh

The anticholinesterase activities of newly synthesized phosphorothioates and phosphorodithioates were investigated. The compounds were evaluated for their acetylcholinesterase (AChE) and butyrylcholinesterase (BChE) inhibition potency through IC_{50} determination.



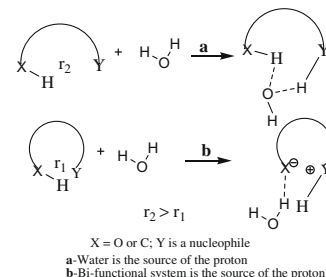
The effective molarity (EM) puzzle in proton transfer reactions

pp 106–110

Rafik Karaman

Cartoon representation for the mechanistic pathways for proton transfer reactions in the presence of water.

Intramolecular Proton Transfer Reactions



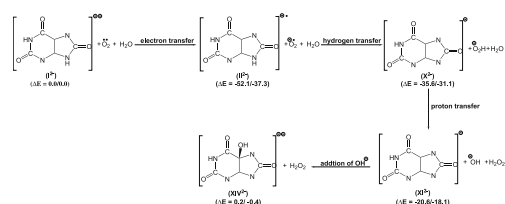
Regular Articles

Intrinsic reactivity of uric acid with dioxygen: Towards the elucidation of the catalytic mechanism of urate oxidase

pp 111–125

Muhannad Altarsha, Bertrand Castro and Gérald Monard*

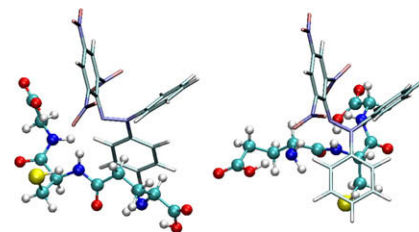
Proposal for the reactivity of urate in urate oxidase starting from urate 3,7-dianion. Reported energies (ΔE in kcal/mol) are relative energies compared to the reactants computed from fully optimized B3LYP/6-31++G** and MP2/6-31++G** structures, respectively.



Mechanism and stoichiometry of 2,2-diphenyl-1-picrylhydrazyl radical scavenging by glutathione and its novel α -glutamyl derivative**pp 126–132**

Säde Viirlaid, Riina Mahlapuu, Kalle Kilk, Aleksei Kuznetsov, Ursel Soomets and Jaak Järv *

2,2-Diphenyl-1-picrylhydrazyl radical (DPPH) forms a non-covalent complex with glutathione (left) and its novel α -glutamyl analog (right) and this equilibrium determines the apparently different antioxidant activity of these peptides *in vitro* assay with DPPH.



Synthesis and evaluation of phosphopeptides containing iminodiacetate groups as binding ligands of the Src SH2 domain**pp 133–142**

Guofeng Ye, Aaron D. Schuler, Yousef Ahmadibeni, Joel R. Morgan, Absar Faruqui, Kezhen Huang, Gongqin Sun, John A. Zebala and Keykavous Parang *

Phosphopeptides containing 0–2 iminodiacetate groups at the *N*- and *C*-terminal lysine residues were designed for studying the Src SH2 domain interactions.

