

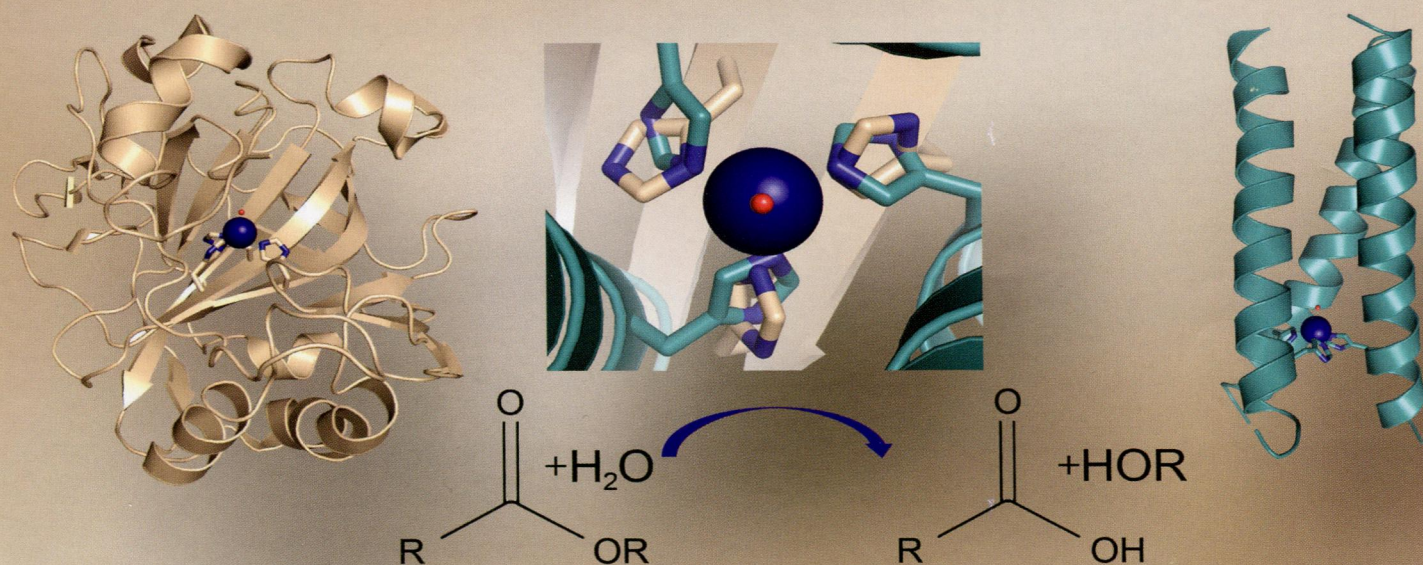
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ON THE COVER: Using de novo and redesign approaches toward the preparation of structural and functional models of hydrolytic zinc metalloenzymes. [Zastrow, M. L., and Pecoraro, V. L. (2014) *Biochemistry* 53, 957–978]

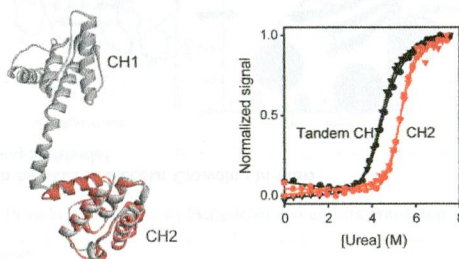
Rapid Reports

2209 **S**

dx.doi.org/10.1021/bi500120e

The C-Terminal Domain of the Utrophin Tandem Calponin-Homology Domain Appears To Be Thermodynamically and Kinetically More Stable Than the Full-Length Protein

Swati Bandi, Surinder M. Singh, and Krishna M. G. Mallela*

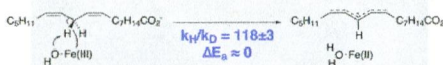


2212 **S**

dx.doi.org/10.1021/bi500070q

Hydrogen Tunneling in a Prokaryotic Lipoygenase

Cody A. Marcus Carr and Judith P. Klinman*

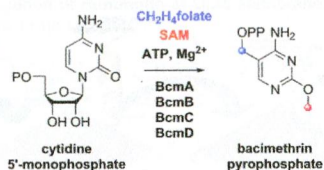


2215 **S**

dx.doi.org/10.1021/bi500281a

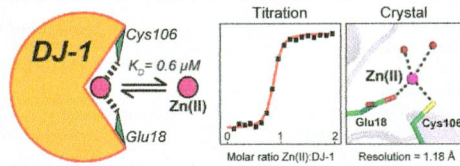
Biosynthesis of a Thiamin Antivitamin in *Clostridium botulinum*

Lisa E. Cooper, Seán E. O'Leary, and Tadhg P. Begley*



Thermodynamic and Structural Characterization of the Specific Binding of Zn(II) to Human Protein DJ-1

Shinya Tashiro, Jose M. M. Caaveiro,* Chun-Xiang Wu, Quyen Q. Hoang, and Kouhei Tsumoto*



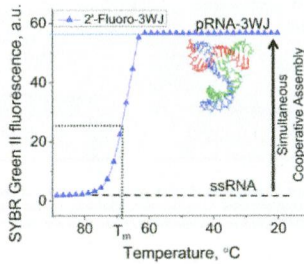
Articles

2221

dx.doi.org/10.1021/bi401702Z

Entropy-Driven One-Step Formation of Phi29 pRNA 3WJ from Three RNA Fragments

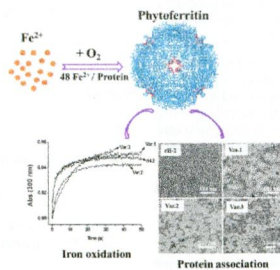
Daniel W. Binzel, Emil F. Khisamutdinov, and Peixuan Guo*

2232 **S**

dx.doi.org/10.1021/bi500066m

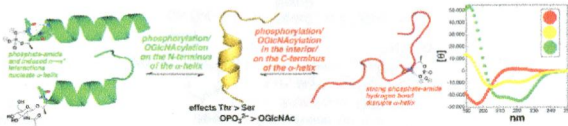
Four-Fold Channels Are Involved in Iron Diffusion into the Inner Cavity of Plant Ferritin

Chenyang Lv, Shengli Zhang, Jiachen Zang, Guanghua Zhao,* and Chuanshan Xu*



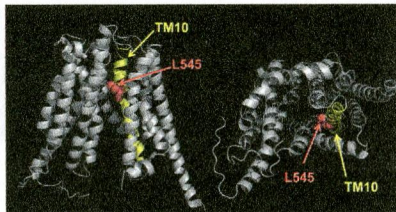
OGlcNAcylation and Phosphorylation Have Similar Structural Effects in α -Helices: Post-Translational Modifications as Inducible Start and Stop Signals in α -Helices, with Greater Structural Effects on Threonine Modification

Michael B. Elbaum and Neal J. Zondlo*



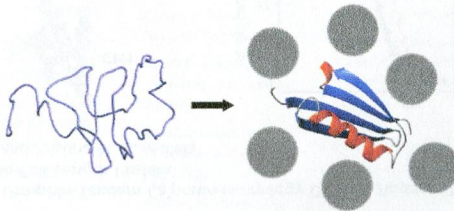
Cysteine Scanning Mutagenesis of Transmembrane Domain 10 in Organic Anion Transporting Polypeptide 1B1

Shuichi Ohnishi, Amanda Hays, and Bruno Hagenbuch*



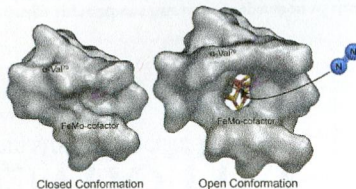
Folding of an Unfolded Protein by Macromolecular Crowding In Vitro

Jörgen Ådén and Pernilla Wittung-Stafshede*



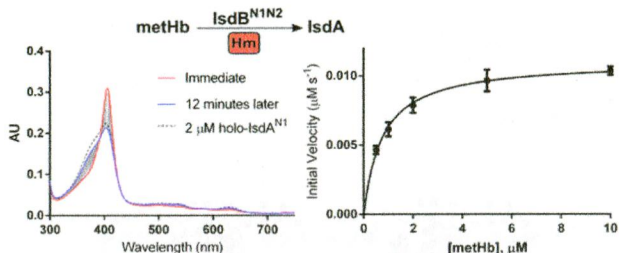
Substrate Channel in Nitrogenase Revealed by a Molecular Dynamics Approach

Dayle Smith,* Karamatullah Danyal, Simone Raugei, and Lance C. Seefeldt*



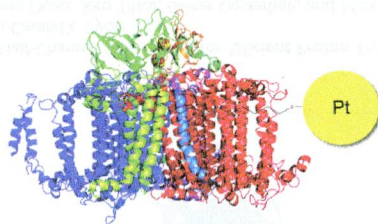
Hemoglobin Binding and Catalytic Heme Extraction by IsdB Near Iron Transporter Domains

Catherine F. M. Bowden, Meghan M. Verstraete, Lindsay D. Eltis, and Michael E. P. Murphy*



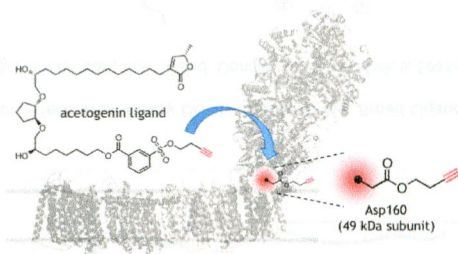
Light-Mediated Hydrogen Generation in Photosystem I: Attachment of a Naphthoquinone–Molecular Wire–Pt Nanoparticle to the A_{1A} and A_{1B} Sites

Michael Gorka, Jonas Schartner, Art van der Est,* Matthias Rögner, and John H. Golbeck*



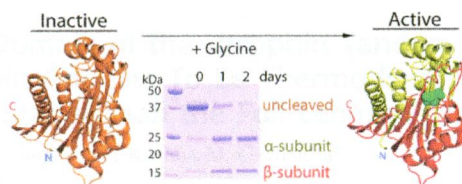
Site-Specific Chemical Labeling of Mitochondrial Respiratory Complex I through Ligand-Directed Tosylate Chemistry

Takahiro Masuya, Masatoshi Murai, Kentaro Ifuku, Hironobu Morisaka, and Hideto Miyoshi*

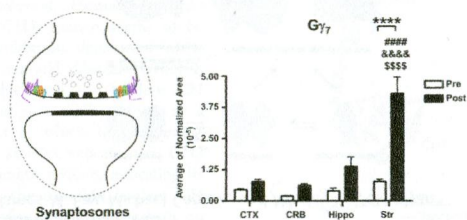


Structural and Kinetic Characterization of Guinea Pig L-Asparaginase Type III

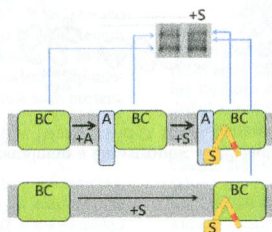
Amanda M. Schalk and Arnon Lavie*

Differential Localization of G Protein $\beta\gamma$ Subunits

Katherine M. Betke, Kristie L. Rose, David B. Friedman, Anthony J. Baucum II, Karen Hyde, Kevin L. Schey, and Heidi E. Hamm*

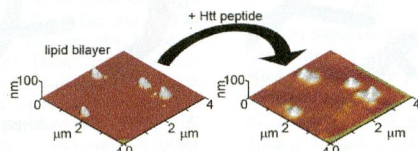
The TatBC Complex of the Tat Protein Translocase in *Escherichia coli* and Its Transition to the Substrate-Bound TatABC Complex

Jana Behrendt and Thomas Brüser*

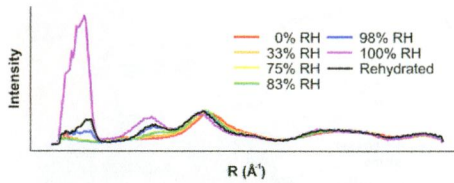


Curvature Enhances Binding and Aggregation of Huntingtin at Lipid Membranes

Maxmore Chaibva, Kathleen A. Burke, and Justin Legleiter*



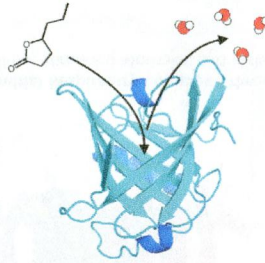
Fiber Diffraction of the Prion-Forming Domain HET-s(218–289) Shows Dehydration-Induced Deformation of a Complex Amyloid Structure
William Wan* and Gerald Stubbs*



2371 dx.doi.org/10.1021/bi5002344

Enthalpy/Entropy Compensation Effects from Cavity Desolvation Underpin Broad Ligand Binding Selectivity for Rat Odorant Binding Protein 3

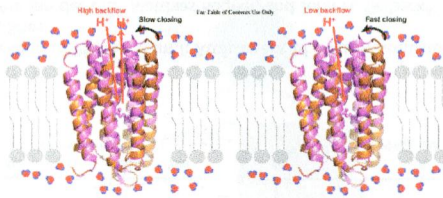
Katherine L. Portman, Jed Long, Stephen Carr, Loïc Briand, Donald J. Winzor, Mark S. Searle,* and David J. Scott*



2380 **5** dx.doi.org/10.1021/bi4013808

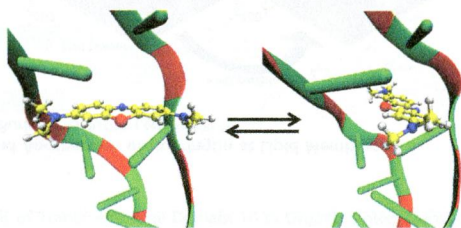
Stable Closure of the Cytoplasmic Half-Channel Is Required for Efficient Proton Transport at Physiological Membrane Potentials in the Bacteriorhodopsin Catalytic Cycle

Ting Wang, Christoph Oppawsky, Yong Duan, Jörg Tittor, Dieter Oesterhelt, and Marc T. Facciotti*



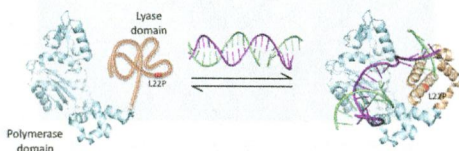
Molecular Dynamics Simulations of Binding Modes between Methylene Blue and DNA with Alternating GC and AT Sequences

Juan J. Nogueira* and Leticia González



Substrate Rescue of DNA Polymerase β Containing a Catastrophic L22P Mutation

Thomas W. Kirby, Eugene F. DeRose, William A. Beard, David D. Shock, Samuel H. Wilson, and Robert E. London*



Non-native Soluble Oligomers of Cu/Zn Superoxide Dismutase (SOD1) Contain a Conformational Epitope Linked to Cytotoxicity in Amyotrophic Lateral Sclerosis (ALS)

Rachel L. Redler, Lanette Fee, James M. Fay, Michael Caplow, and Nikolay V. Dokholyan*

