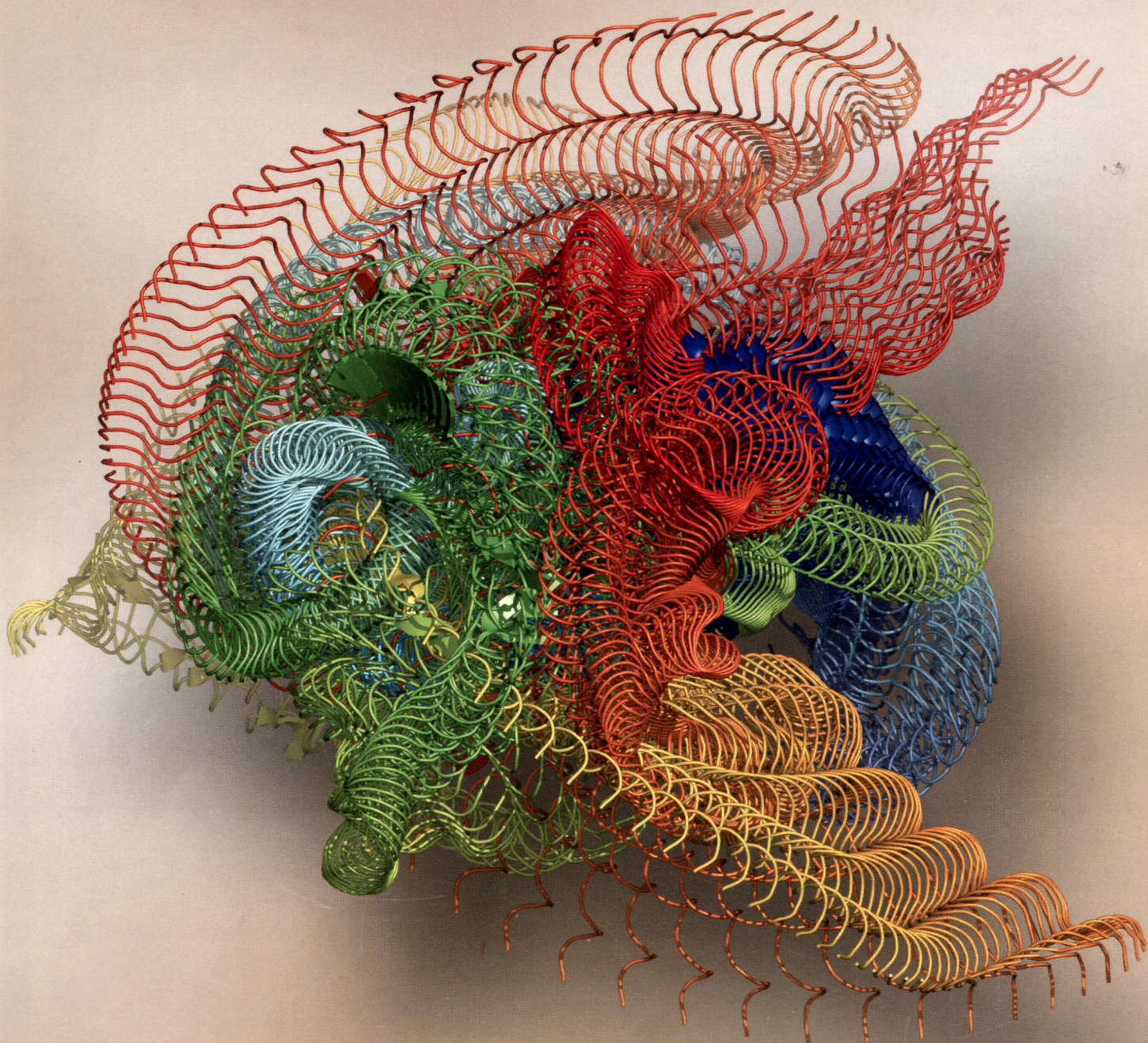


BIOCHEMISTRY

including biophysical chemistry & molecular biology

NOVEMBER 26, 2013 • VOLUME 52 NUMBER 47

pubs.acs.org/biochemistry



ACS Publications

MOST TRUSTED. MOST CITED. MOST READ.

www.acs.org

BIOCHEMISTRY

including biophysical chemistry & molecular biology

November 26, 2013
Volume 52, Issue 47
Pages 8387-8600

Accelerated Publications

X-ray Crystal Structure of Bovine 3 Glu-Osteocalcin

Vladimir N. Malashkevich, Steven C. Almo, and Terry L. Dowd
pp 8387–8392

Publication Date (Web): October 18, 2013 (Accelerated Publication)

DOI: 10.1021/bi4010254



Section:

General Biochemistry

Articles

All-Atom Molecular Dynamics Simulations of Actin–Myosin Interactions: A Comparative Study of Cardiac α Myosin, β Myosin, and Fast Skeletal Muscle Myosin

Minghui Li and Wenjun Zheng
pp 8393–8405

Publication Date (Web): October 29, 2013 (Article)

DOI: 10.1021/bi4006896



Section:

General Biochemistry

Development of RNA Aptamers Targeting Ebola Virus VP35

Jennifer M. Binning, Tianjiao Wang, Priya Luthra, Reed S. Shabman, Dominika M. Borek, Gai Liu, Wei Xu, Daisy W. Leung, Christopher F. Basler, and Gaya K. Amarasinghe
pp 8406–8419

Publication Date (Web): September 26, 2013 (Article)

DOI: 10.1021/bi400704d



Section:

Pharmacology

Isotropic Bicelles Stabilize the Juxtamembrane Region of the Influenza M2 Protein for Solution NMR Studies

Jolyon K. Claridge, Jussi Aittoniemi, Daniel M. Cooper, and Jason R. Schnell
pp 8420–8429

Publication Date (Web): October 29, 2013 (Article)

DOI: 10.1021/bi401035m



Section:

Biochemical Methods

Pulsed EPR Study of Amino Acid and Tetrahydropterin Binding in a Tyrosine Hydroxylase Nitric Oxide Complex: Evidence for Substrate Rearrangements in the Formation of the Oxygen-Reactive Complex

Matthew D. Krzyaniak, Bekir E. Eser, Holly R. Ellis, Paul F. Fitzpatrick, and John McCracken
pp 8430–8441

Publication Date (Web): October 29, 2013 (Article)

DOI: 10.1021/bi4010914

 Section:

Enzymes

Characterization of BciB: A Ferredoxin-Dependent 8-Vinyl-Protochlorophyllide Reductase from the Green Sulfur Bacterium Chloroherpeton thalassium

Allison H. Saunders, John H. Golbeck, and Donald A. Bryant
pp 8442–8451

Publication Date (Web): October 23, 2013 (Article)

DOI: 10.1021/bi401172b

 Section:

Enzymes

Participation of Glutamate-333 of the D1 Polypeptide in the Ligation of the Mn₄CaO₅ Cluster in Photosystem II

Rachel J. Service, Junko Yano, Preston L. Dilbeck, Robert L. Burnap, Warwick Hillier, and Richard J. Debus
pp 8452–8464

Publication Date (Web): October 29, 2013 (Article)

DOI: 10.1021/bi401339f

 Section:

Plant Biochemistry

Kinetic Mechanisms of Mutation-Dependent Harvey Ras Activation and Their Relevance for the Development of Costello Syndrome

Michael Wey, Jungwoon Lee, Soon Seog Jeong, Jungho Kim, and Jongyun Heo
pp 8465–8479

Publication Date (Web): November 13, 2013 (Article)

DOI: 10.1021/bi400679q

 Section:

Mammalian Pathological Biochemistry

Differential Pharmacological Activity of JN403 between α 7 and Muscle Nicotinic Acetylcholine Receptors

Hugo R. Arias, Maria Jose De Rosa, Ignacio Bergé, Dominik Feuerbach, and Cecilia Bouzat
pp 8480–8488

Publication Date (Web): October 28, 2013 (Article)

DOI: 10.1021/bi4012572

 Section:

Pharmacology

Kinetics of Myosin Light Chain Kinase Activation of Smooth Muscle Myosin in an in Vitro Model System

Feng Hong, Kevin C. Facemyer, Michael S. Carter, Del R. Jackson, Brian D. Haldeman, Nick Ruana, Cindy Sutherland, Michael P. Walsh, Christine R. Cremo, and Josh E. Baker

pp 8489–8500

Publication Date (Web): October 21, 2013 (Article)

DOI: 10.1021/bi401001x

 Section:

Enzymes

Methylation of Structural Components of the Axoneme Occurs During Flagellar Disassembly

Rita Werner-Peterson and Roger D. Sloboda

pp 8501–8509

Publication Date (Web): October 23, 2013 (Article)

DOI: 10.1021/bi4011623

 Section:

Microbial, Algal, and Fungal Biochemistry

A Novel Assay for Detecting Fusion Pore Formation: Implications for the Fusion Mechanism

Hirak Chakraborty, Pradip K. Tarafdar, and Barry R. Lentz

pp 8510–8517

Publication Date (Web): October 28, 2013 (Article)

DOI: 10.1021/bi401369j

 Section:

Biochemical Methods

Prion versus Doppel Protein Misfolding: New Insights from Replica-Exchange Molecular Dynamics Simulations

Pascal Baillod, Julian Garrec, Ivano Tavernelli, and Ursula Rothlisberger

pp 8518–8526

Publication Date (Web): October 22, 2013 (Article)

DOI: 10.1021/bi400884e

 Section:

General Biochemistry

Molecular Mechanisms of Inhibition of Influenza by Surfactant Protein D Revealed by Large-Scale Molecular Dynamics Simulation

Boon Chong Goh, Michael J. Rynkiewicz, Tanya R. Cafarella, Mitchell R. White, Kevan L. Hartshorn, Kimberly Allen, Erika C. Crouch, Oliviana Calin, Peter H. Seeberger, Klaus Schulten, and Barbara A. Seaton

pp 8527–8538

Publication Date (Web): November 13, 2013 (Article)

DOI: 10.1021/bi4010683

 Section:

Pharmacology

Hemoglobin Bohr Effects: Atomic Origin of the Histidine Residue Contributions

Guishan Zheng, Michael Schaefer, and Martin Karplus

pp 8539–8555

Publication Date (Web): November 13, 2013 (Article)

DOI: 10.1021/bi401126z

 Section:

General Biochemistry

Unraveling the Molecular Structure of the Catalytic Domain of Matrix Metalloproteinase-2 in Complex with a Triple-Helical Peptide by Means of Molecular Dynamics Simulations

Natalia Díaz, Dimas Suárez, and Haydeé Valdés

pp 8556–8569

Publication Date (Web): October 28, 2013 (Article)

DOI: 10.1021/bi401144p

 Section:

Enzymes

Structural Basis for Substrate Specificity and Mechanism of N-Acetyl-d-neuraminic Acid Lyase from Pasteurella multocida

Nhung Huynh, Aye Aye, Yanhong Li, Hai Yu, Hongzhi Cao, Vinod Kumar Tiwari, Don-Wook Shin, Xi Chen, and Andrew J. Fisher

pp 8570–8579

Publication Date (Web): October 23, 2013 (Article)

DOI: 10.1021/bi4011754

 Section:

Enzymes

Fluorescent Biphenyl Derivatives of Phenylalanine Suitable for Protein Modification

Shengxi Chen, Nour Eddine Fahmi, Chandrabali Bhattacharya, Lin Wang, Yuguang Jin, Stephen J. Benkovic, and Sidney M. Hecht

pp 8580–8589

Publication Date (Web): October 24, 2013 (Article)

DOI: 10.1021/bi401275v

 Section:

General Biochemistry

Comparison of the Structural and Dynamic Effects of 5-Methylcytosine and 5-Chlorocytosine in a CpG Dinucleotide Sequence

Jacob A. Theruvathu, Y. Whitney Yin, B. Montgomery Pettitt, and Lawrence C. Sowers

pp 8590–8598

Publication Date (Web): October 22, 2013 (Article)

DOI: 10.1021/bi400980c

 Section:

General Biochemistry

Additions and Corrections

Correction to DNA Translocation by Human Uracil DNA Glycosylase: Role of DNA Phosphate Charge

Joseph D. Schonhoft, John G. Kosowicz, and James T. Stivers

pp 8599–8599

Publication Date (Web): November 14, 2013 (Addition/Correction)

DOI: 10.1021/bi401512a

 Section:

Enzymes