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## *Perspectives*

### ***Enzymatic Rate Enhancements: A Review and Perspective***


John P. Richard  
pp 2009–2011  
**Publication Date (Web):** March 1, 2013 (Perspective)  
**DOI:** 10.1021/bi3017119  
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## *Current Topics*


### ***Catalytic Efficiency of Enzymes: A Theoretical Analysis***

Sharon Hammes-Schiffer  
pp 2012–2020  
**Publication Date (Web):** December 14, 2012 (Current Topic)  
**DOI:** 10.1021/bi301515j  
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### ***Specificity in Transition State Binding: The Pauling Model Revisited***

Tina L. Amyes and John P. Richard  
pp 2021–2035  
**Publication Date (Web):** January 17, 2013 (Current Topic)  
**DOI:** 10.1021/bi301491r  
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### ***Connecting Protein Conformational Dynamics with Catalytic Function As Illustrated in Dihydrofolate Reductase***

Yao Fan, Alessandro Cembran, Shuhua Ma, and Jiali Gao  
pp 2036–2049  
**Publication Date (Web):** January 8, 2013 (Current Topic)  
**DOI:** 10.1021/bi301559q  
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### ***Fundamental Challenges in Mechanistic Enzymology: Progress toward Understanding the Rate Enhancements of Enzymes***

Daniel Herschlag and Aditya Natarajan

pp 2050–2067

**Publication Date (Web):** March 14, 2013 (Current Topic)

**DOI:** 10.1021/bi4000113

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### ***Importance of Protein Dynamics during Enzymatic C–H Bond Cleavage Catalysis***

Judith P. Klinman

pp 2068–2077

**Publication Date (Web):** February 1, 2013 (Current Topic)

**DOI:** 10.1021/bi301504m

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#### ***Structure of EvaA: A Paradigm for Sugar 2,3-Dehydratases***

Rachel L. Kubiak, James B. Thoden, and Hazel M. Holden

pp 2078–2088

**Publication Date (Web):** March 8, 2013 (Accelerated Publication)

**DOI:** 10.1021/bi400176n

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#### ***Unique Proline-Rich Domain Regulates the Chaperone Function of AIPL1***

Jing Li, Gabriel Zoldak, Thomas Kriehuber, Joanna Soroka, Franz X. Schmid, Klaus Richter, and Johannes Buchner

pp 2089–2096

**Publication Date (Web):** February 18, 2013 (Article)

**DOI:** 10.1021/bi301648q

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#### ***The FKBP-Type Domain of the Human Aryl Hydrocarbon Receptor-Interacting Protein Reveals an Unusual Hsp90 Interaction***

Miriam Linnert, Yi-Jan Lin, Annika Manns, Katja Haupt, Anne-Katrin Paschke, Gunter Fischer, Matthias Weiwad, and Christian Lücke

pp 2097–2107

**Publication Date (Web):** February 18, 2013 (Article)

**DOI:** 10.1021/bi301649m


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#### ***Tertiary and Quaternary Allostery in Tetrameric Hemoglobin from *Scapharca inaequalvis****

Luca Ronda, Stefano Bettati, Eric R. Henry, Tara Kashav, Jeffrey M. Sanders, William E. Royer, and Andrea Mozzarelli  
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**Publication Date (Web):** March 4, 2013 (Article)  
**DOI:** 10.1021/bi301620x  
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**DOI:** 10.1021/bi400048s  
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**DOI:** 10.1021/bi3016795  
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Fuming Zhang, Benjamin Walcott, Dongwen Zhou, Alla Gustchina, Yi Lasanajak, David F. Smith, Rodrigo S. Ferreira, Maria Tereza S. Correia, Patrícia M. G. Paiva, Nicolai V. Bovin, Alexander Wlodawer, Maria L. V. Oliva, and Robert J. Linhardt  
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pp 2157–2164

**Publication Date (Web):** March 12, 2013 (Article)

**DOI:** 10.1021/bi3010076

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