RESEARCH ARTICLES

1542 Elongation Factor G Bound to the Ribosome in an Intermediate State of Translocation
D. S. Tournig et al.
Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1235490

1543 Crystal Structures of EF-G–Ribosome Complexes Trapped in Intermediate States of Translocation
J. Zhou et al.
Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1236086

1544 Control of Ribosomal Subunit Rotation by Elongation Factor G
A. Pulik and J. H. D. Cate
Crystal structures reveal how messenger RNA and transfer RNAs transition through the prokaryotic ribosome during translation. Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1235970

1545 Continuous Permeability Measurements of Permeability inside a Fault Zone after a Major Earthquake reveal rapid healing of fractures
L. Xue et al.
>> Perspective p. 1534

1549 Dinitrogen Cleavage and Hydrogenation by a Trinuclear Titanium Polyhydride Complex
T. Shima et al.
The collective reactivity of three hydride-bridged titanium centers cleaves dinitrogen under mild conditions.
>> Perspective p. 1530

1550 Temperature Drives the Continental-Scale Distribution of Key Microbes in Topsoil Communities
F. Garcia-Pichel et al.
Climate change is likely to shift the distribution of key cyanobacteria species in desert soils.
>> Perspective p. 1533; Science Podcast

1552 The Origin of Lunar Mascon Basins
H. J. Melosh et al.
A detailed model of impact basin formation explains the gravity signatures near two lunar craters.
>> Perspective p. 1535

1554 Fe-S Cluster Biosynthesis Controls Uptake of Aminoglycosides in a ROS-Less Death Pathway
B. Ezraty et al.
The respiratory chain is required for antibiotic entry to the target cell rather than for its killing.

1556 Dynamic Topography Change of the Eastern United States Since 3 Million Years Ago
D. B. Rowley et al.
Mantle flow has deformed the presumed passive eastern margin of North America up to 60 meters during the past 5 million years.

1558 Deep Cortical Layers Are Activated Directly by Thalamus
C. M. Constantinople and R. M. Bruno
A direct pathway is used to evoke sensory responses in neurons in multiple layers of the rat barrel cortex.