

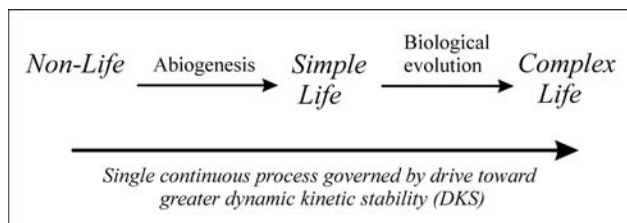
Graphical Abstracts

Current Organic Chemistry, 2013, Vol. 17, No. 16 1702

Dynamic Kinetic Stability (DKS) as a Conceptual Bridge Linking Chemistry to Biology

Addy Pross*

* Department of Chemistry, Ben Gurion University of the Negev, Beer Sheva, 84105, Israel

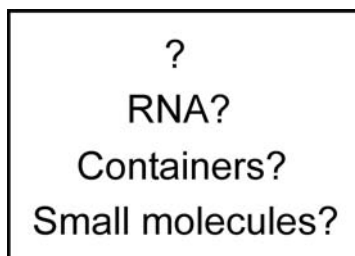


Current Organic Chemistry, 2013, Vol. 17, No. 16 1704

Conceptual Challenges for Contemporary Theories of the Origin(s) of Life

Carol E. Cleland*

* Department of Philosophy, Center for Astrobiology, University of Colorado, Boulder, CO 80309-0232, USA

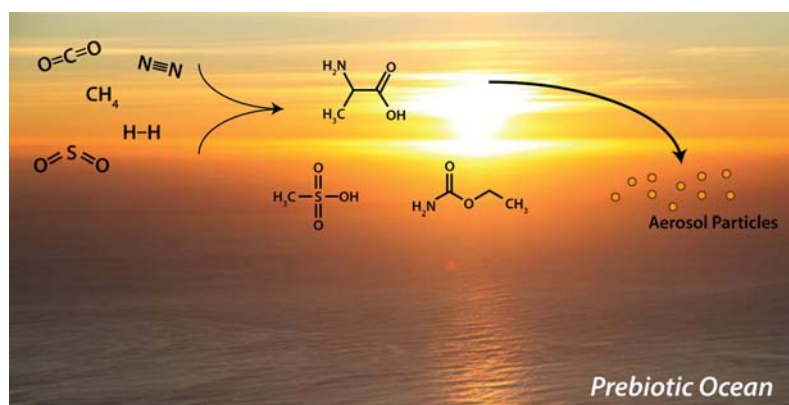


Current Organic Chemistry, 2013, Vol. 17, No. 16 1710

Atmospheric Prebiotic Chemistry and Organic Hazes

Melissa G. Trainer*

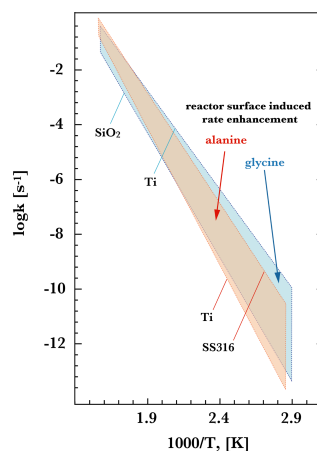
* Planetary Environments Laboratory, NASA Goddard Space Flight Center, Code 699, Greenbelt, MD 20771, USA



The Stability of Biomolecules in Hydrothermal Fluids

Kono H. Lemke*

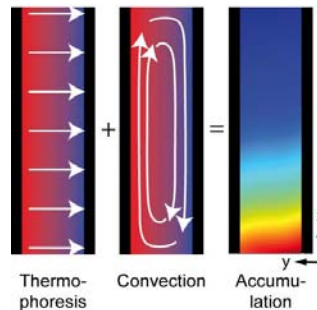
* *Department of Earth Sciences, University of Hong Kong, Pokfulam Road, Hong Kong, SAR, China*



Could Thermal Gradients Drive Molecular Evolution?

Christof B. Mast, Natan Osterman and Dieter Braun*

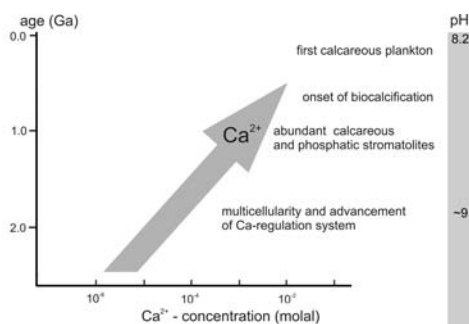
* *Systems Biophysics, Physics Department, Center for Nanoscience, Ludwig Maximilians Universität München, Amalienstrasse 54, 80799 München, Germany*



Calcium in the Early Evolution of Living Systems: A Biohistorical Approach

Józef Kazmierczak, Stephan Kempe and Barbara Kremer*

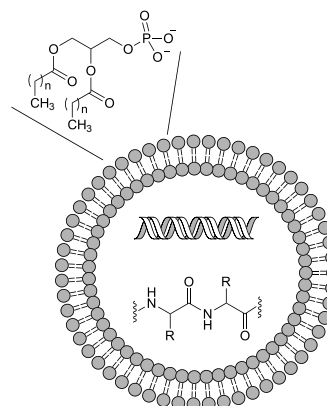
* *Institute of Paleobiology, Polish Academy of Sciences, Twarda 51/55, 00-818 Warsaw, Poland*



Piecing Together Cell-like Systems

Domenica Torino, Laura Martini and Sheref S. Mansy*

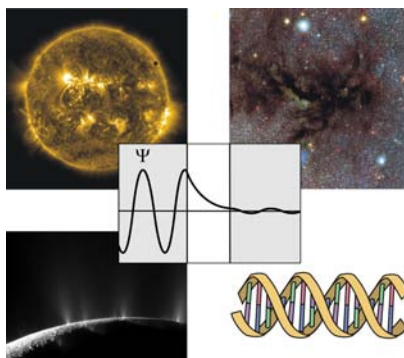
* CIBIO, University of Trento, via delle Regole 101, 38123 Mattarello (TN), Italy



Quantum Tunnelling to the Origin and Evolution of Life

Frank Trixler*

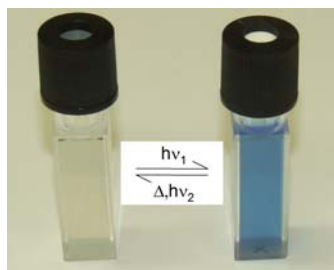
* Center for NanoScience (CeNS), Ludwig-Maximilians-Universität München, Schellingstraße 4, 80799 München, Germany; and Department of Earth and Environmental Sciences, Ludwig-Maximilians-Universität München, Theresienstrasse 41, 80333, München, Germany; and TUM School of Education, Technische Universität München, Museumsinsel 1, 80538 München, Germany



Organic Nanoparticulate Photochromes

Tivadar Feczko* and Bojana Voncina

* Institute of Materials and Environmental Chemistry, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Pusztaszeri u. 59-67., H-1025, Budapest, Hungary



Applications of Ultrasound in Organic Synthesis - A Green Approach

Saurabh Puri, Balbir Kaur, Anupama Parmar and Harish Kumar*

** Department of Chemistry, Sant Longowal Institute of Engineering & Technology, Longowal-148106 (Pb.), India*

The review focus on the uses of ultrasound radiations in organic synthesis as a greener methodology. The applications of sonochemistry to many types of important synthetic protocols in heterocyclic chemistry, condensation reactions, substitution reactions, oxidation, reduction, addition reactions, photochemical reactions, protection/deprotection reactions, coupling reaction photochemical reactions, polymerization reactions etc. have been described.