

*Posters will be on Display for the Entire Week.  
Presenters are Requested to be Present at Their Poster the Last Half-Hour Break of the Evening.*

**POSTER SESSION: INTERPLAY OF THE DIFFERENT SUBSYSTEMS FOR  
THE ORIGIN OF LIFE: FATTY ACIDS OR OTHER COMPARTMENT-FORMING  
SYSTEMS/AMINO ACIDS/NUCLEOTIDES  
Price Center Ballroom East**

Bapat N. V. Rajamani S.

[\*Effect of Co-Solutes on Template-Directed Nonenzymatic Copying of RNA\*](#) [#4005]

Given the heterogeneous nature of the prebiotic milieu, we report here, the effect of presence of lipid vesicles and Polyethylene Glycol (PEG) as co-solutes on the rate and accuracy of enzyme-free template-directed RNA primer extension reactions.

Yu Y. F. Shu W. Y. Liu Y. Zhao Y. F.

[\*Co-Origin of Oligopeptide/Oligonucleotide/Membrane with an N-Phosphoryl Amino Acid Model in Origin of Life\*](#) [#4044]

Co-origin theory receives much concern in recent years. We bring in an N-phosphoryl amino acid model to demonstrate the reasonability of this theory. Herein, we expect an oral presentation to elucidate the importance of phosphorus in origin of life.

Sproul G. D.

[\*Protolife Membrane Composition\*](#) [#4108]

A simpler membrane than with phospholipids was likely found among protocells. Using synthetic conditions that have been shown to produce peptides, fatty acids react with amino acids or peptides to form amphiphilic lipoamino acids and lipopeptides.

Dass A. V. Georgelin T. Kee T. P. Brack A. Westall F.

[\*Hydrogels: Lets Thicken the Prebiotic Soup\*](#) [#4146]

We introduce a new class of material that could be interesting in prebiotic chemistry: The silica hydrogel. Inorganic cells could have provided an alternative mode of compartmentalisation on early earth.

Campbell T. D. Febrian R. Bracher P. J.

[\*Mixtures of Hygroscopic Salts and Urea as Prebiotic Media for the Condensation of Amino Acids\*](#) [#4192]

Here, we describe a model in which mixtures of simple salts and urea are able to absorb limited amounts water from the atmosphere and serve as media to host reactions of prospective importance to the origin of life on Earth.

Sweeney K. J. Müller U. F.

[\*Lanthanide Cofactors for Triphosphorylation Ribozymes\*](#) [#4112]

RNA world organisms could have used trimetaphosphate as energy source for thermodynamically unfavorable RNA polymerization. Using in vitro selection we show here that Lanthanides can serve as cofactors for ribozyme-catalyzed RNA triphosphorylation.

Misuraca L. Natali F. da Silva L. Peters J. Zaccai G. Deamer D. Maurell M. C.

[\*Dynamics of Adenosine Monophosphate in Lipid and Salty Environment\*](#) [#4228]

One of the fundamental questions, which concern the Origin of Life studies, is how the first nucleic acids were synthesized starting from the monomeric constituents, in a prebiotic environment.