

Origins 2014 Poster session on July 8 (Tue) and 10 (Thu) (Coretime 13:30–14:30)

Poster

Organic compounds around and between stars	
Michel Nuevo	The Photochemistry of Pyrimidine in Cold Astrophysical Environments
Jean-Claude Guillemin	Synthesis and photochemistry of cyanobutadiyne and methylocyanobutadiyne, two interstellar compounds
Kaori Kidachi	Theoretical investigation of alanine formation on interstellar dusts
Daiki Ishimoto	Detectability of disk winds by molecular emission lines observed with ALMA
Hideko Nomura	Complex Organic Molecules in Protoplanetary Disks
Albert Rimola	Quantum Mechanical Insights into Molecular Hydrogen Formation on Interstellar Dust Grains
Christopher Kroboth Materese	Radiation Chemistry on Solar System Icy Bodies: Laboratory Simulations for Pluto and Other Transneptunian Objects
Planetary systems' formation: How many Earths?	
Mihoko Konishi	Deficit of M-dwarfs in the Halo and Thick Disk of the Galaxy: Estimation of the Number of Contaminating Stars for Direct Imaging Surveys
Ayana Sasaki	Balloon Borne Astronomical Interferometer in Far-Infrared
Jun Takahashi	Earthshine Polarimetry: Can Polarimetry Help to Find an Exoplanet with an Ocean?
Ekaterina Melikh	Evolution of Planetary Systems and Habitable Zones
Hideori Genda	Giant Impacts and Terrestrial Planet Formation
Yui Kawashima	Transmission spectrum models of low-mass exoplanet atmospheres with haze: Application to GJ 3470b
Yuka Fujii	Geology and Photometric Properties of Solar System Bodies: Implication for Characterization of Small Exoplanets
Ryan Heller	A Search for Exomoons in the Stellar Habitable Zones
Comets, Asteroids and meteorites	
Yuichiro Ogata	Hypervelocity Capture of Meteorite Particles in Aerogel: Ground-based experiment for the Cosmic Dusts Capture at the International Space Station
Kensei Kobayashi	Space Exposure of Amino Acids and Their Precursors in the Scheduled Tanpopo Mission on the International Space Station: Results of Preliminary Experiments on Ground
Julia Myrgorodska	Multidimensional analysis of amino acids in Murchison meteorite
Sandra Pizzarello	Terrestrially altered carbonaceous meteorites: how good for early molecular evolution?
Josep M. Trigo-Rodríguez	Processing of Primordial Organic Compounds in Carbonaceous Asteroids by Mild Aqueous Alteration
Kebukawa Yoko	Prebiotic Organic Molecule Syntheses on Asteroids: from Formaldehyde and Ammonia during Aqueous Alteration
The prebiotic emergence of complex order: Chirality, catalysis and other means	
Jason P Dworkin	Amino acids in carbonaceous chondrites and potential formation mechanisms
Junichi Takahashi	Terrestrial Bio-chirality and Symmetry Breaking of the Universe
Jose C. Aponte	Racemic Monocarboxylic Acids in CM2 Carbonaceous Chondrites and Implications for the Origin of Homochirality
Ikumi Otsuka	Ammonium phosphates-producing flexible tryptophanase stereoselectivity
Titan, Enceladus and Europa, a habitat for life?	
Tetsuya Tokano	Rainfall climatology on Titan and Earth and its implication for the water distribution on dry exoplanets in the habitable zone
Jun Kawai	Self-assembly of Titan tholins in environments simulating liquidospheres on Titan
Delphine Nna Mvondo	Laboratory Investigation of Titan's Surface Compositions: Infrared Spectroscopy of Amino Acids Derived from Titan's Tholins and Tholins in Organic Solvents
Jun Kimura	Polymerization of amino acids in the icy moons
Robert Pappalardo (S.Vance?)	The Europa Clipper Mission Concept
Murray Darrach	Mass Analyzer for Real-time Investigation of Neutrals at Europa (MARINE)
Mars, past and present	
Frederic Foucher	Techniques used in astrobiology to search for past or present extraterrestrial life, in particular on Mars
Frances Westall	Microbial Microbial Microbial-scale habitability on Mars, the concept of punctuated habitability, and scale habitability on Mars, the concept of punctuated habitability, and scale habitability on Mars, the concept of punctuated habitability, and scale hab
Rebecca L. Mickol	Methanogen Survival at Martian Pressures
Sinha Navita	Stable Carbon Isotope Fractionation by Methanogens Growing on Martian Regolith Analogs
Jamie Wallis	Martian meteorite "Tissint", indigenous carbon in an aggregate rock fragment from Mars' near-surface
Louis M Lerman	Prebiotic Chemical Evolution on an Early Mars: Consequences and Artifacts of 'Organic' Weather Cycles in the Noachian
Early Earth	
Marie-Paule P. BASSEZ	Water, air, earth and cosmic radiation
Louis M Lerman	Global Organic Weather Cycles and the Origin of Life: Planetary-Scale Infrastructures for Prebiotic Chemical Evolution on Terrestrial-like Planets
Oiga Taran	Metal oxides and sulfides form galvanic cells capable of providing energy for prebiotic reactions
Aditya Chopra	Can Elemental Abundances be Used to Identify the Most Likely Site for the Origin of Life?
Hideharu Kuwahara	The molecular composition of terrestrial planetary atmospheres of impact origin during post-accretion stage
Hikaru Yabuta	High power laser-shock experiment of chondritic meteorites: Contributions of impacts to a reducing atmosphere of the early Earth
Tomohiro Nakamura	Origin of organic matter in 3.2 Ga black shales revealed by infrared and laser Raman microspectroscopy
Ayaka Shiina	Constraints for oceanic redox conditions from Fe speciation analysis of 3.2 Ga DXCL-DP black shales, Cleaverville Group, Western Australia

Ko Hashizume	A possible origin of laminations in BIF deciphered from N and Fe isotopes
Tatsuya Tomioka	Geochemistry of carbon and sulfur in the 2.7 Ga stromatolite (ABDP#10 core) from Meentheana, Western Australia
Hiroaki Minami	Sulfur speciation and isotope analysis of the 2.7 Ga shallow- and deep-facies black shales from Pilbara, Western Australia.
Makoto Kotani	Denitrification in the Mesoproterozoic deep ocean: Evidence from nitrogen isotope compositions of kerogen in black shales from Pilbara, Western Australia
Nao Tsukahara	Carbon isotopic geochemistry of Makganyen diamictite in South Africa: Quest of the paleoproterozoic Snowball Earth Event
Origin of Life Experiments: Computational	
Bruce Frederick Damer	A nomenclature for describing sufficiently complex simulations of evolving molecular systems
Takeshi Ishida	Simulation model of living cells origin with cellular automata model
Vladimir Nikolayevich Kompanichenko	Arising of Key Biological Properties in Prebiotic Microsystems in the Course of Thermodynamic Inversion: Theory and Proposed Experiments
Jerzy Maselko	The spontaneous emergence of chemical organizations. The first step in the transition from nonliving to living matter.
Akifumi Oda	Investigations for Conformations of [GADV]-peptides Using Molecular Dynamics Simulations
Norio Kitadai	Why life uses only α -amino acids as building block of proteins?: A thermodynamic evaluation
Prebiotic chemistry	
Hayato Tokimura	Formation of Nucleic Acid Bases from Simulated Interstellar Media and Their Stability in Space Environments
Kazumichi Nakagawa	Experimental evaluation of dissociation stability, asymmetric reaction efficiency, and chiral stability of amino acid films upon vacuum ultraviolet irradiation
Kimihiro Ishiyama	Time dependent absorption spectra of alanine film after stopping irradiation of 172 nm vacuum ultraviolet light
Yoshitaka Bessho	Recapitulation of the primitive earth environment in space, and bioimaging primary biomaterials by coherent X-ray beams
Yoshihiro Furukawa	Effects of Borate and Silicate on the Stabilization of Pentoses
Helen Greenwood Hansma	Proton-Coupled Electron Transfer, Muscovite Mica, and the Origins of Life
Alexandra Whicher	Energy metabolism at the origin of life
Ellen Yvette Aguilar-Ovando	Influence of Mineral Surfaces in the Chemical Transformations Undergone by Amino Acids in Prebiotic Conditions
Kunio Kawamura	Behavior of amino acid and peptide under the pulsed discharge plasma
Maguy Jaber	Polymerization and Selectivity polymerization of amino acids (arginin, glutamic acid and alanin) to the zeolite (silicate)
Damien Beauflis	C-Terminus Activation of Peptides as a Prebiotically Plausible Pathway
Hajime Mita	Chemical and physical properties of proteinoid microspheres
Ziwei Liu	Formation and Reactivity Amino Acid-Phosphate and Peptide-Phosphate Mixed Anhydrides under Prebiotically Plausible Conditions
Gonen Ashkenasy	Multiple Roles of Peptides and Proteins in The Origin of Life
Toratane Munegumi	Aldolase as a Chirality-Intersection of Amino Acid and Sugar
Nicholas V Hud	Ester Formation and Hydrolysis During Wet-Dry Cycles: Generation of Far-From-Equilibrium Polymers in a Model Prebiotic Reaction
Ayako Takahashi	Diversity in size and shape distributions of organic microspherules
Taisiya A. Telegina	Photophosphorylation of ADP to ATP Involving Chromoproteinoid-Silicate Matrices
Hyo-Joong Kim	Prebiotic Pyrimidine Nucleoside Synthesis of Functional Group Substituted Pyrimidine Base
Yile Wu	Model for Genetic Code Origin
Hannes L. Pleyer	Possible Iron Sources for a Prebiotic Formation of Iron Porphyrins
Elizaveta Guseva	Origins of biopolymers: mechanisms of sequence selection
Nicholas V Hud	Molecular Origins Database: A Wiki Library of Prebiotic Compounds
Andrew James Surman	Analytical platforms for exploring complex chemical systems
Leroy (Lee) Cronin	Engineering the Transition to Evolvable Chemistry: Inorganic Biology
Towards the RNA world & The RNA World	
Kunio Kawamura	Difficulty of oligonucleotide replication using the monomeric activated nucleotides
Romeu C Guimaraes	The Self-Referential Genetic Code is Fully Biologic and Includes the Error Minimization Property
Naoto Nemoto	tRNA-binding Peptide Consisting of Four Kinds of Amino Acids by cDNA Display Method
Marco V. Jose	Symmetry groups in the structure of the genetic tRNA anticodon
Aleksei V. Melkikh	The Problem of Stability of Spatial Configurations of Replicators and Mechanisms of Their Evolution
Shinji Karasawa	Mechanism of organization of molecules formed by intermolecular binding force
Balazs Konnyu	Template directed replication supports the maintenance of the Metabolically Coupled Replicator System
Kokoro Hamachi	Evolutionary process of tRNA and riboswitches
Jessica Yeates	Game theory in a prebiotic RNA system
Laura da Silva	Salt-promoted synthesis of RNA-like molecules in simulated hydrothermal conditions
Alexander V. Yakhnin	Selection for Resistance to Degradation and the Origin of Life
Harold S Bernhardt	Purine biosynthetic intermediate-containing polymers as evolutionary precursors to RNA
Nobuto Takeuchi	On the Roles of Parasites in an RNA World: Evolution of Complexity in Model Replicator Systems
Marc Rodriguez Garcia	Microfluidic platforms for selection and enrichment
Sudha Rajamani	Lipid catalyzed nonenzymatic synthesis of RNA and its implications for the RNA world
Niraja Bapat	Plausible prebiotic role of molecular crowding in template directed nonenzymatic replication of nucleic acids
Chaitanya Mungi	Characterization of lipid assisted nonenzymatic polymerization reaction of 5' -nucleoside monophosphates
Hossein Shenasa	Generation of oligonucleotides under hydrothermal conditions by non-enzymatic polymerization

Duncan Coleman	Evolution of RNA editing in a laboratory experiment
Fabrizio Maria Anella	Reconciling ribozyme activity with fatty acid vesicle stability
Protocells & Early Cellular Systems	
Andrew D Czaja	Filamentous Microfossils from the Neoproterozoic Gamohaan Formation of South Africa: Implications for the History of Photoautotrophy
Lin Jin	Nonenzymatic RNA Replication Inside Giant Multilamellar Protocells
Kanta Tsumoto	Self-Emergent Cell-Sized Sphere Entrapping DNA through Micro Phase-Segregation
Pauline van Nies	Stochastic gene expression in liposomes for the assembly of a minimal cell
Andrew Pohorille	M2 Proton Channel : Structure and Activation
Charles Lineweaver	The Origin of Multicellularity and Cancer
Victor Sojo	From protocells to cells in natural proton gradients: the divergence of archaea and bacteria
Pre LUCA molecular evolution	
Shin-ichi Yokobori	Origin of Archaea-type cellular membrane inferred from molecular phylogenetic analyses of GIP and G3P dehydrogenases
Satoshi Akanuma	Protein simplification to address the amino acid usage of primordial proteins
Sohan Jheeta	A Paradigm Shift Hypothesis: A case for RNA's influence on Life on Earth
Marco V. Jose	A proposal of the proteome before LUCA
Yasuyuki Semba	The improvement of the lignin degrading enzyme by reconstructing of the ancestral enzyme
Ryutaro Furukawa	Investigation for early evolution of life based on phylogenetic analysis using aminoacyl-tRNA synthetase
Alejandro Nabor Lozada-Chavez	Evolution of genome structure in RNA viruses: distribution of positive and negative selection, and interplay between RNA structure and protein sequence
Kendrick Michael Wang	Production of amino acids by polypeptides present in a prebiotic protein world
Johann Peter Gogarten	Intein Distributions Illuminate the Threads of the Web of Life
Peter R. Wills	Emergence of coding specificity
Evolutionary aspects	
Ion George Soteropoulos	The Origin Paradox of Life
James Lyons	Isotopic cross sections for SO ₂ and relevance to sulfur MIF
Nori Miyake	Identification and characterisation of the Sri Lankan red rain cells using molecular approaches
Eric D Becraft	Identifying the Metabolic Potential of Microbial Dark Matter Populations in Extreme Environments
Zann Gill	Life's Improbable Origin: The A-PR Hypothesis
Makoto Tabata	Silica Aerogel for Capturing Intact Interplanetary Dust Particles for the Tanpopo Experiment
Yuko Kawaguchi	The possible interplanetary transfer of microbes: Assessing the viability of <i>Deinococcus</i> spp. under the ISS environmental conditions for performing exposure experiments of microbes in the Tanpopo mission
Kazuki Yoshida	Self-propagating microparticles associated with the Kasumi cell culture: a methodological approach
Hltomi Nishiwaki	Microorganisms that prefer D-amino acids: toward a search for anti-chiral organisms
Hiroshi Hattori	The Universal Code and Non-Universal Codes
Erik Persson	Signatures of Life on Earth and in Cosmos
Erik Persson	The attitude towards astrobiology among students and the interested public in Sweden
Sandra Ramos	The concept of life from the perspective of philosophy of mind: a proposal to investigate the subjective nature of reality.
Ninel Valderrama	The avant-grade underwater mural: the Oparin theory from an artistic viewpoint
Yuuka Ishizawa	Fitness change of mutators in different medium in accordance with apparent mutation rate