

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

Poster

| Organic compounds around and between stars | |
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| 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 |
| Hidegori 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 |
| Iuliia 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 liquidspheres 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) |
| Delphine Nna Mvondo | Experimental study of CH ₄ -N ₂ clathrate hydrates in application to Titan's surface |
| 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 |
| Olga 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 |

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| 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 Meentena, 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 |
| Andrew D Czaja | Filamentous Microfossils from the Neoproterozoic Gamohaan Formation of South Africa: Implications for the History of Photoautotrophy |
| 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 |
| Kimihito 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 Beaufils | 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 anticode |
| 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 |

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| 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 | |
| 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 |
| Chenyu Wei | 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 G1P 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 aspets | |
| Ion Jeanne Soteropoulos | The Origin Paradox of Life |
| James Lyons | Isotopic cross sections for SO2 and relevance to sulfur MIF |
| Nori Miyake | Identification and chracterisation 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 Deinococcus 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 |