Seventh Trieste Conference on Chemical Evolution and the Origin of Life: Life in the Universe: From the Miller Experiment to the Search for Life on other Worlds | (smr 1516)

Monday 15 September 2003 - Friday 19 September 2003
Trieste - Italy

Conference Scientific Programme
2003-09-15 | Julian Chela-Flores
OPENING CEREMONY - Welcome Addresses (Boncinelli, Grymes, Molaro, van Dunne, Owen, Raulin, Chela-Flores)

2003-09-15 | Francois Raulin
The NASA Astrobiology Institute (Rosalind Grymes)EANA, The European Exo/Astrobiology Network Association (Andre Brack)Coffee Break

2003-09-15 | Frank Drake
Overview of cosmic evolution (George V. Coyne, S.J.)Coffee Break

2003-09-15 | Andre Brack
Physical phenomena underlying the origin of life (Juan Perez-Mercader)

2003-09-15 | George V. Coyne, S.J.
The origin of biogenic elements (Francesca Matteucci)Thermochemistry of the Dark Age (Denis Puy)Lunch Break

2003-09-15 | Frances Westall
Recent advances and setbacks in searching for the oldest life on earth: a geologist's viewpoint (Stephen Moorbath)

2003-09-15 | Roberto Cipriani
On the apparently consistent L-biased enantiomeric excesses in meteoritic extracts as representing a form of attenuated forensic stereochemical evidence of chiral information derived from terrestrial... (Simon Nicholas Platts)Kinetic modeling of the SOAI-type alkylzinc addition as a model system for efficient chiral autoamplification (Jean-Claude Micheau (*) and Thomas Buhse (**) )Phase transition beats in natural optical activity and parity violation of alanine enantiomers (Wang Wenqing)Break

2003-09-15 | Aranya Bhattacherjee
Origin and evolution of metabolic pathways (Matteo Brilli and Renato Fani)A mechanism for the prebiotic emergence of proteins: the role of proton gradient and high temperature in the polymerization of amino acids embedded in bilayers (Harold P. De Vladar (*), Roberto Cipriani (**) )A functional and self-referential model for the genetic code (Romeu Cardoso Guimaraes)
importance of biased synthesis in chemical evolution studies (A. Negron-Mendoza and S. Ramos-Bernal)

2003-09-15
REGISTRATION

2003-09-16 | Juan Perez Mercader

Prebiotic organic synthesis and the emergence of life: from the Miller experiment to the start of biological evolution (Antonio Lazcano)

2003-09-16 | Doron Lancet

Mineral surfaces as a cradle of primordial genetic material (Enzo Gallori) Adsorption and self-organization of small molecules on inorganic surfaces: some applications to the origin of life (Donald G. Fraser)

2003-09-16 | Janet Siefert

Origin and evolution of very early sequence motifs in enzymes (Herrick Baltscheffsky) Group photograph at the Terrance Level of the AGH to be followed by a Coffee Break (In case of bad weather the photo will be taken on Wednesday during the morning coffee break) The lipid world: from catalytic and informational headgroups to Micelle replication and evolution without nucleic acids (Doron Lancet)

2003-09-16 | Sandip Chakrabarti

Spontaneous generation of amino acid structures in the interstellar medium (Uwe Meierhenrich) Experimental study of the degradation of complex organic molecules. Application to the origin of extended sources in cometary atmospheres (N. Fray) Lunch Break

2003-09-16 | Uwe Meierhenrich

The Rosetta mission (Gerard Schwehm) Fate of glycine and other complex biomolecules during interstellar collapse (Sandip Chakrabarti) Chemical evolution of simple biomolecules in hydrodynamically collapsing interstellar gas in presence of grains (Kinsuk Acharyya)

2003-09-16 | Rosalind Grymes

Viable halobacteria from permian salt deposits - and in outer space? (Helga Stan-Lotter) The discovery of organics in Earth's deep materials (sub-basement red paleosols) drilled in the North Pacific (ODP LEG 197): Implications for astrobiology research (Rosalba Bonaccorsi)
2003-09-16 | Herrick Baltscheffsky
Recollections of the beginning of chemical evolution experiments (Stanley Miller)Reception in honour of Professor Stanley Miller

2003-09-17 | Michel Mayor

2003-09-17 | Stephen Moorbath
Early life and hydrothermal environments (Frances Westall)Isotopic evidence for microbial sulfate reduction and methanotrophy during the late Archean, Witwatersrand basin, South Africa (Erik Boice)Ancient life on Earth and Mars (Mark Van Zuilen)

2003-09-17 | Enzo Gallori

2003-09-17 | Afolabi Akintunde Akindahunsi
Coenzymes in evolution of the RNA world (Mikhail Kritskiy)Diversity of microbial life on Earth and beyond (Joseph Seckbach)Title to be announced (Luis J. Delaye)Extraterrestrial impacts on Earth and extinction of life in the Himalaya (Vinod Chandra Tewari)Coffee Break

2003-09-17 | Mohindra Chadha
Decomposition temperatures of prebiotic monomers (P.R. Bahn and A. Pappelis)Prebiotic chirality transfer from extraterrestrial Ca-tetrasubsituted a-amino acids to protein amino acids (Marco Crisma, Italy)The hunt for "biologically active" biopolymers: spontaneous folding of random RNA oligomers (M. Franchi and E. Gallori, Italy)Prebiotic polymerization of aminoacids: A Markov chain approach (S. Ramos-Bernal and A. Negron-Mendoza, Mexico)

2003-09-17 | Joseph Seckbach
Interstellar dust as a tracer of environments favourable to planet formation: evidence for the existence of a metallicity threshold (Giovanni Vladilo, Italy)Characterization of extrasolar planet
candidates (Jose Gallardo, Chile)Proposing a United Nations Secretary General SETI International Advisory Board (G. Genta, Italy)How advanced is ETI? (Paolo Musso, Italy)Hauser-Chomsky-Fitch hypothesis on the evolution of unbounded mental faculties - language and number instincts (Tahir Shah, Italy)

2003-09-17 | Steven J. Dick
The future of SETI (Frank Drake)Conference Dinner (In case of bad weather the dinner will begin at 9 p.m. in the dining room) - Please register with the Conference Secretary before 5 p.m. Monday, 15 September

2003-09-17 | Vinod Chandra Tewari
The electrochemical CO2 reduction to formate in hydrothermal sulfide ore deposit as a novel abiotic source of organic matter (a hypothesis and the laboratory model) (M.S. Kritskiy, Russia)Amino acid chronology? (William Collis, Italy)The role of clay material in shielding DNA against X-ray radiation (F. Scappini, Italy)

2003-09-17
Analysis of the works of the german naturalist Ernst Haeckel (1834-1919) on the origin of life (Florence Raulin-Cerceau, France)Chemical abundances of cometary meteoroids from meteor spectroscopy: Implications to the Earth enrichment (J.M. Trigo-Rodriguez, J. Llorca and J. Oro', Spain)Some statistical aspects related to the study of treelines in Pico De Orizaba (L Cruz Kuri and R. Navarro-Gonzalez, Mexico C. McKay, USA)Effects of non-carbonaceous meteoritic extracts on the germination, growth and chlorophyll content of edible plants (V. Marcano, P. Matheus et al., Venezuela)

2003-09-17 | Kamalludin
Horizontal gene transfer in the evolution of nitrogen fixation (Janet Siefert, USA)The case for life existing outside of our biosphere: techniques for identifying molecular structures (Riccardo Gatta, India)Palaeobiology and biosedimentology of the stromatolitic buxa dolomite, Ranjit window, Sikkim, Ne Lesser Himalaya, India (Vinod Chandra Tewari, India ICTP)Conserved oligopeptides in Rubisco large chain: an evolutionary perspective (P.B. Vidyasagar and Pratip Shil, India)

2003-09-18 | Paolo Molaro
Current status and expected exobiological return of the Cassini-Huygens mission (Francois Raulin)Planets with detectable life (Tobias Owen)

2003-09-18 | Peter D. Ward
Current status of the search for extrasolar planets (Michel Mayor)Coffee BreakSearch for extrasolar planets around giant stars (Leo Girardi)
2003-09-18 | Michael Meyer
Search for water outside the solar system (Cristiano Cosmovici)

2003-09-18 | Torrence Johnson
Sulphate volumes and the fitness of SUPCRT92 for calculating deep ocean chemistry (Steven Vance)
Search for bacterial waste as a possible signature of life on Europa (A. B. Bhattacherjee (*) and Julian Chela-Flores (**))

2003-09-18 | Margareta Baltscheffsky
Exobiology of Titan (Michael B. Simakov)
Chemical characterization of aerosols in simulated planetary atmospheres. Titan's aerosol analogues (Sandra I. Ramirez (*), Rafael Navarro-Gonzalez (**), Francois Raulin (***)
Observation, modeling and experimental simulation; understanding Titan's atmospheric chemistry using these three tools (F. Raulin)
Lunch Break

2003-09-18 | Cristiano Cosmovici
Search for extrasolar life: the Darwin/TPF mission (Alain Leger)

2003-09-18 | Tobias Owen
Get-Together

2003-09-18 | Julian Chela-Flores
Europa: overview of the future missions (Torrence Johnson)

2003-09-19 | Mauro Messerotti
Factors leading to the appearance and survival of metazoan equivalents on habitable planets (Peter D. Ward)
Evolution of intelligent behaviour: Is it just a question of time? (Julian Chela-Flores)

2003-09-19 | Francois Raulin
Quasar absorption line systems and astrobiology (Giovanni Vladilo)
The habitability of the nearest stars to complex lifeforms (Margaret Turnbull)
Space weather and space climate life inhibitors or catalysts? (Mauro Messerotti)
Coffee Break
2003-09-19 | Giancarlo Genta
SETI-ITALIA status report (Stelio Montebugnoli)SETI on the moon (Claudio Maccone)

2003-09-19 | Mikhail Kritsky
Astrobiology and Biocentrism (Roberto Aretxaga)Determinism and the proteinoid theory (A. Pappelis)On the question of convergent evolution in biochemistry (A. Akindahunsi (*) and J. Chela-Flores (**))Lunch Break

2003-09-19 | Alicia Negron Mendoza
When did information first appear in the universe? (Juan G. Roederer)Searching for Dyson spheres in the Milky Way (Dante Minniti)

2003-09-19 | Stelio Montebugnoli
Some engineering considerations on the controversial issue of humanoids (Giancarlo Genta)Application of SETI instruments in astrophysics investigations (Simona Righini)Application of molecular biology techniques in astrobiology (Riccardo Gatta (*) and Julian Chela-Flores (**))

2003-09-19 | Wang Wenqing
Ten years of Trieste Conferences on chemical evolution and origin of life: A pictorial overview (Mohindra Chadha)Coffee Break

2003-09-19 | Antonio Lazcano
The new universe, destiny of life and cultural implications (Steven J. Dick)

2003-09-19
Words by Julian Chela-Flores, Tobias Owen and Francois Raulin