poster

Paper ID: 15743

## SPACE LIFE SCIENCES SYMPOSIUM (A1) Astrobiology and Exploration (5)

Author: Dr. Dale Srinivas University of Guyana, Guyana, vijay28us@yahoo.com

## NANOTECHNOLOGY: AN ATTEMPT TO EXPLAIN CENTRAL PROBLEM FOR ORIGIN OF LIFE STUDIES BY USING CLAY NANOPARTICLES AND ENZYMES (NANOZYME )

## Abstract

Nanozyme involved simultaneous formation of Nucleic acids A new angle for origin of life will be presented. Virtually all Scientists now agree that bacterial cells cannot form from nonliving chemicals in one step. If life arises from nonliving chemicals, there must be intermediate forms, "precellular life." Of the various theories of precellular life, the most popular contender today is "the RNA world." RNA has the ability to act as both genes and enzymes. This property could offer a way around the "chicken-andegg" problem (Genes require enzymes; enzymes require genes.) Furthermore, RNA can be transcribed into DNA, in reverse of the normal process of transcription. Herein we propose Clay Nanoparticles of primitive earth involvement in Amino acid polymerization to make the protein/Enzyme as well as nucleotide Polymerisation to synthesize RNA as well as DNA. Probably Nanoparticles of Clay reacting with early enzymes to form Nanozymes (Nanoparticle+ enzyme) which can facilitate the synthesis of RNA/DNA Simultaneousely. In conclusion our theory attempts to explain Nanozymes involvement in the nucleic acid synthesis. Accordingly Proteins/Enzymes are first to form macromolecules and later on with the Nanozyme helps to synthesize RNAS and DNA simultaneousely by using whole primitive Earth as a round bottom flask. The efforts to explore this theory is presently underway in our laboratory. RNA Nanoparticle of Clay + Enzyme --[Nanozyme] +Nucleotides DNA

Acknowledgement: The author is thankful to Scientific Educational Society for laboratory facilities.