

Complex organic compounds in interstellar dust particles, meteorites and comets and their relevance to origins of life

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Complex organic compounds have been found in carbonaceous chondrites and comets. It is suggested that these organic compounds were originally formed in interstellar dust particles in molecular clouds. Our laboratory simulation experiments showed that large molecular weight complex organic compounds can be formed in molecular clouds environments by the action of cosmic rays. The products gave a wide variety of amino acids after acid hydrolysis. Here I discuss the relationship between organic compounds in interstellar dust particles, carbonaceous chondrites and comets and origins of life on the Earth.