Dr. Eloi Camprubi-Casas

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Seminar on Tuesday 26/03, 2 pm

Salle the conférence, Institut de Sciences & d'ingénierie Supramoléculaires (ISIS), Esplanade Campus 8 allée Gaspard Monge, 67083 Strasbourg

On wet rocky worlds – How does origin of life research impact space exploration efforts at Icy Worlds?

Many settings have been proposed as the cradle of life on Earth. Amongst these, Hadean alkaline hydrothermal systems have been proposed as electrochemical reactors driving an autotrophic origin. Recent experimental discoveries demonstrate some of the crucial synthetic steps are indeed favored under these conditions. We have developed a high-pressure microfluidic reactor to simulate the out-of-equilibrium conditions found in these extreme submarine environments. How does this research impact the strategy for biosignature detection at Icy Worlds? What role does the icy surface environment play when trying to detect signs of life? This talk will present our work in the <u>Astrobiochemistry Lab</u> at the University of Texas Rio Grande Valley, connecting abiogenesis and life detection research.

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