In this talk, Adam will explore how different energy sources can drive different kinds of chemical transformations on the prebiotic Earth, and Adam will apply this knowledge to narrow down the kinds of environments where complex groups of organic compounds, predecessors to life, could have originated.

**ENERGY, ENTROPY AND COMPLEXITY ON THE PREBIOTIC EARTH**

**PUBLIC LECTURE TUESDAY APRIL 4 @ 6:30 PM - MARSTON EXPLORATION THEATER - ISTB4**

IF YOU'RE LOSING THE GAME, JUST CHANGE THE RULES:
GEOCHEMICAL PRODUCTION OF WATER-ALTERNATIVE SOLVENTS ON THE PREBIOTIC EARTH

**SCIENTIFIC TALK WEDNESDAY APRIL 5 @ 2 PM - GWC 505**

In this colloquium, we will explore the conversion of aqueous acetonitrile (ACN) and hydrogen cyanide (HCN) into FA by γ-irradiation under conditions mimicking exposure to radioactive energy sources on the early Earth.

A MILLION TINY COFFEE MACHINES IN A COFFEE CUP:
A THEORETICAL ARCHITECTURE FOR EXPLORING ORGANIC AUTOMATA AND THE ORIGINS OF LIFE

**SCIENTIFIC TALK THURSDAY APRIL 6 @ 1:30 PM - PSF 566**

The origins of life brings into stark relief the inadequacy of our current synthesis of thermodynamic, chemical, physical and information theory to predict the conditions under which complex, living states of organic matter can arise. In this colloquium, we will explore how to build an organic synthesis volume with more than one level of emergent behavior.

All events are being held on ASU’s Tempe campus.