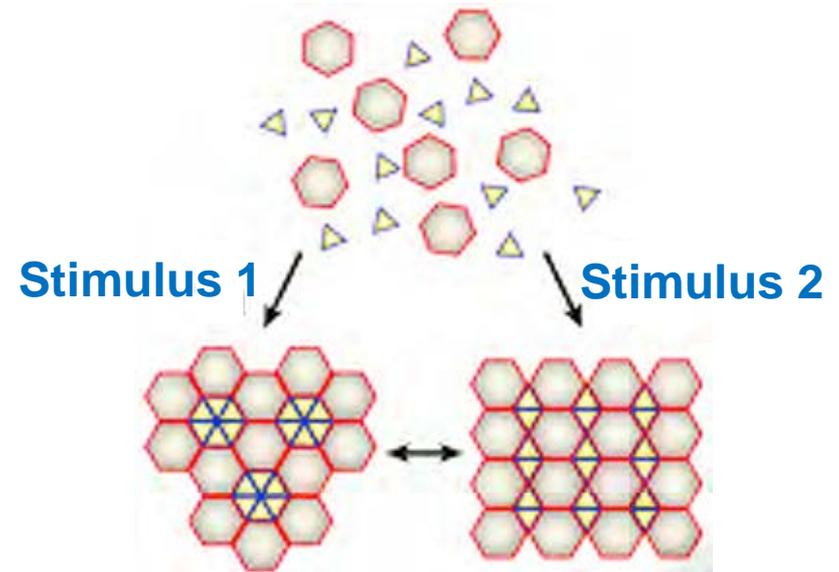


The goal of NERC is to synthesize and characterize fundamentally new classes of materials under conditions far-from-equilibrium that are relevant to solar energy conversion, catalysis, and storage of electricity and hydrogen. These “adaptive” materials, while structurally robust, are able to change and optimize their own performance in response to external stimuli.



RESEARCH PLAN AND DIRECTIONS

By translating the theoretical description into the design and synthesis of specific non-equilibrium systems, identify the rules/requirements under which artificial materials and systems become least dissipative and, therefore, most energetically efficient.