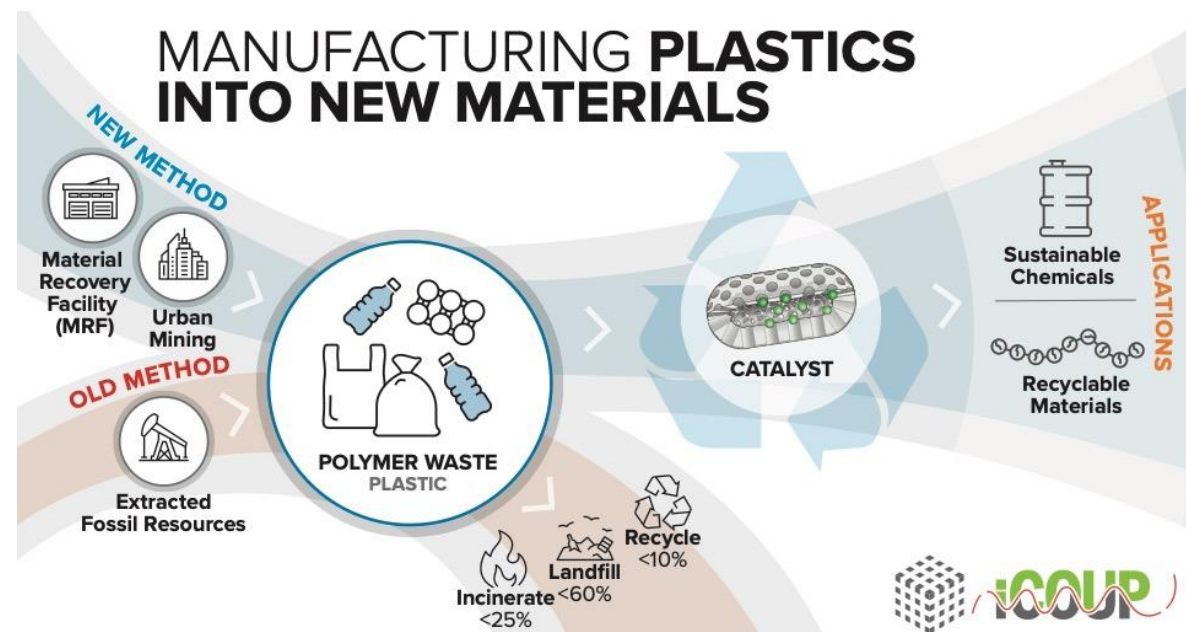


Institute for Cooperative Upcycling of Plastics (iCOUP)

Aaron Sadow (Ames National Laboratory); Class: 2020-2028

MISSION: To establish the molecular and macromolecular scientific principles governing deconstruction and reconstruction of polymers to enable sustainable manufacturing from energy-rich plastics



RESEARCH PLAN: iCOUP is creating inorganic catalytic materials and catalytic methods that selectively deconstruct long polymers chains into molecules of a targeted length with desired end groups. We study the fundamental molecular-, meso-, and nanoscale phenomena, such as macromolecule-catalyst interactions, underpinning these transformations. iCOUP is also investigating the chemistry to enable the use of these target molecules for the manufacture of new, value-added chemicals or recyclable polyolefins.

<https://www.ameslab.gov/institute-for-cooperative-upcycling-of-plastics-icoup>

