

GREEN CHEMISTRY AND THE SUSTAINABILITY PENDULUM

Warner, John C.

10 Crystal Rd, Wilmington, MA 01887

The Technology Green House

USA

john@johnwarner.org

The materials economy can be thought of as a pendulum with the field of chemistry at its apex. In one direction, the human-built world manifests through manufacturing and recycling. In the other direction, the natural world is a combination of extraction and degradation. The overlap between these two termini of the pendulum is a useful quantitative assessment of sustainability. This presentation will describe the 5 embedded cycles of use/reuse, assembly/disassembly, materials metabolism, regeneration and stable ecosystems. Examples from both the human-built world and the natural world will be presented to illustrate the issues and opportunities for green chemistry to design a sustainable future.

