# The 12 Principles of Green Chemistry

Provides a framework for learning about green chemistry and designing or improving materials, products, processes, and systems.

- **Prevent Waste**
- **Aton Economy**
- **Less Hazardous Synthesis**
- **Design Benign Chemicals**
- **Benign Solvents & Auxiliaries**
- **Design for Energy Efficiency**
- **Use of Renewable Feedstocks**
- **Reduce Derivatives**
- **Catalysis (vs. Stoichiometric)**
- **Design for Degradation**
- **Real-Time Analysis for Pollution Prevention**
- **Inherently Benign Chemistry for Accident Prevention**

*Green Chemistry: Theory and Practice*
Anastas, Paul T., Warner, John C.