



OPERATING CONDITIONS

WATER-BASED WORLD
DYNAMIC NON-EQUILIBRIUM
SUBJECT TO LIMITS AND BOUNDARIES

LIFE'S PRINCIPLES

Life Creates Conditions Conducive to Life

- o Optimizing Rather than Maximizing
 - Using multi-functional design
 - Fitting form to function
- o Leveraging Interdependence
 - Recycling all materials
 - Fostering cooperative relationships
 - Self-organizing
- o Using Benign Manufacturing
 - Using life-friendly materials
 - Using water-based chemistry
 - Using self-assembly

Life adapts and evolves

- o Locally Attuned and Responsive
 - o Resourceful and opportunistic
 - Shape rather than material
 - o Cellular and nested
 - Simple, common building blocks
 - Free energy
 - o Feedback Loops
 - Antenna, signal, and response
 - Learns and imitates
- o Integrates Cyclic Processes
 - Feedback loops
 - Cross-pollination and mutation
- o Resilient
 - Diverse
 - Decentralized and distributed
 - Redundant