

Radboud University Nijmegen



Complex behavior (physical) principles & laws (bottom-up)

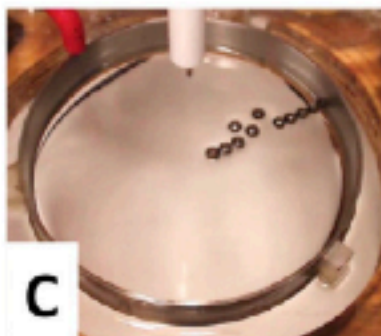
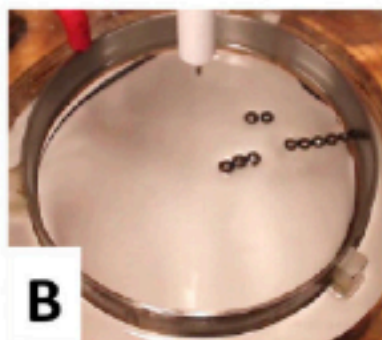
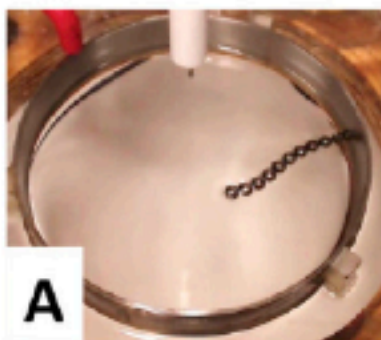
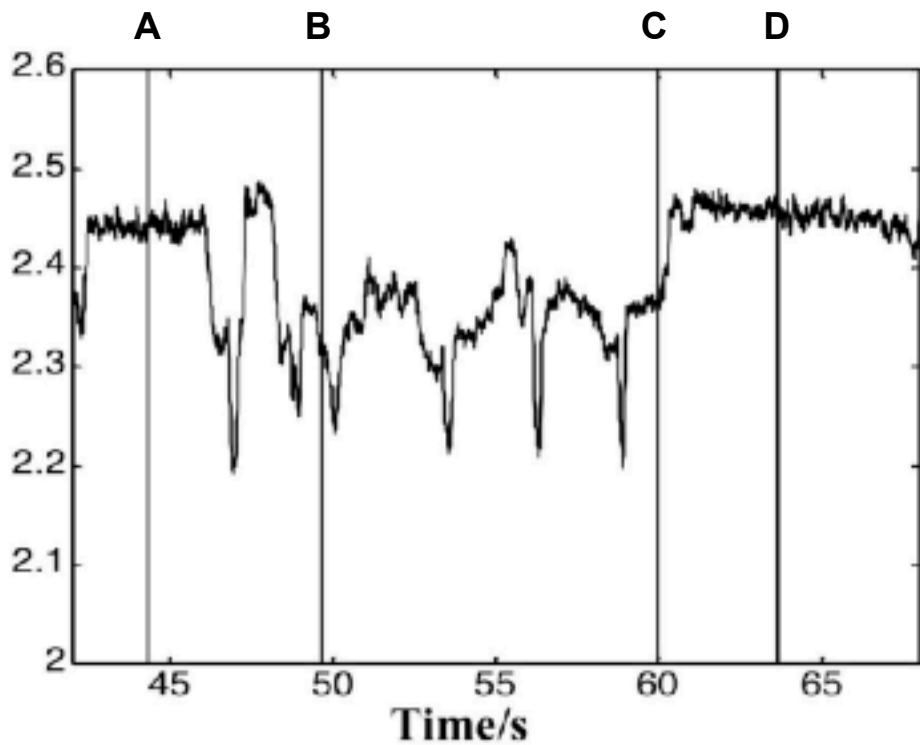




self-repair:

Resilience to perturbation

Entropy production



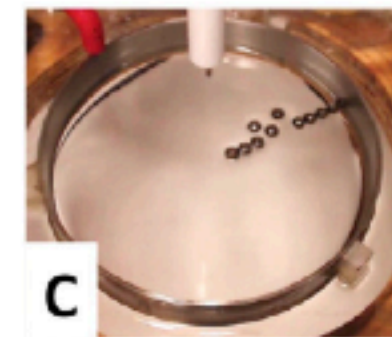
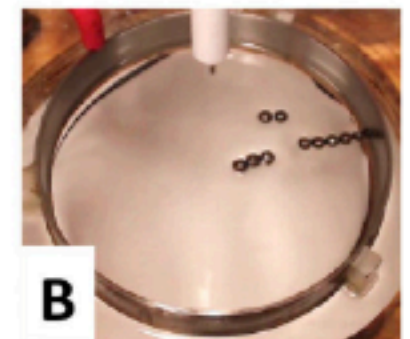
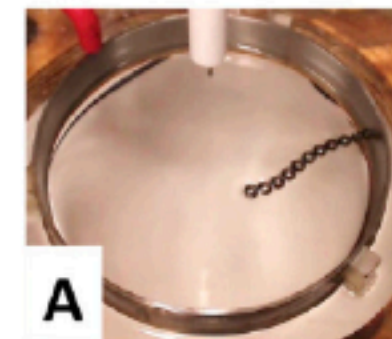
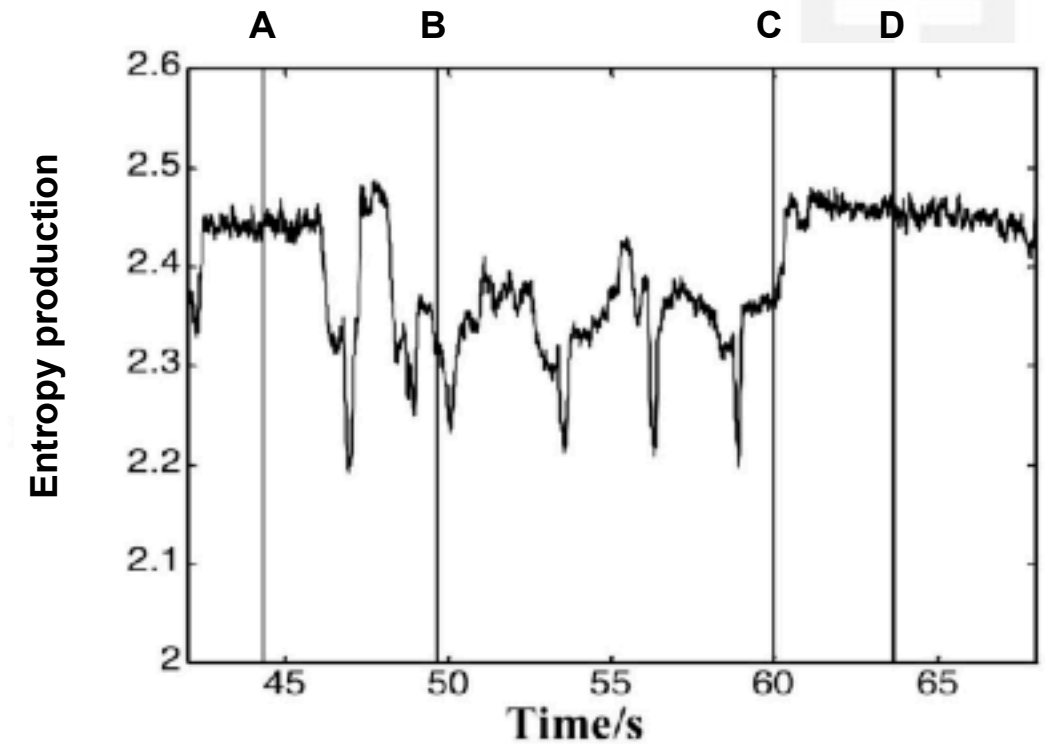
Kondepudi D, Kay B, Dixon J. (2017). Dissipative structures, machines, and organisms: A perspective. *Chaos*, 27(10), 104607.



Complex behaviour from (physical) principles & laws (bottom-up)



**self-repair:
Resilience to perturbation**



Complex behaviour from (physical) principles & laws (bottom-up)

END DIRECTED EVOLUTION TO STATES OF HIGHER ENTROPY PRODUCTION

More properties:

Memory

Classical conditioning (aversion / preference)

