

# *Memory Effect*

*pranjoto utomo*

# Fully charge - recharge

Fully charge

0%

100%



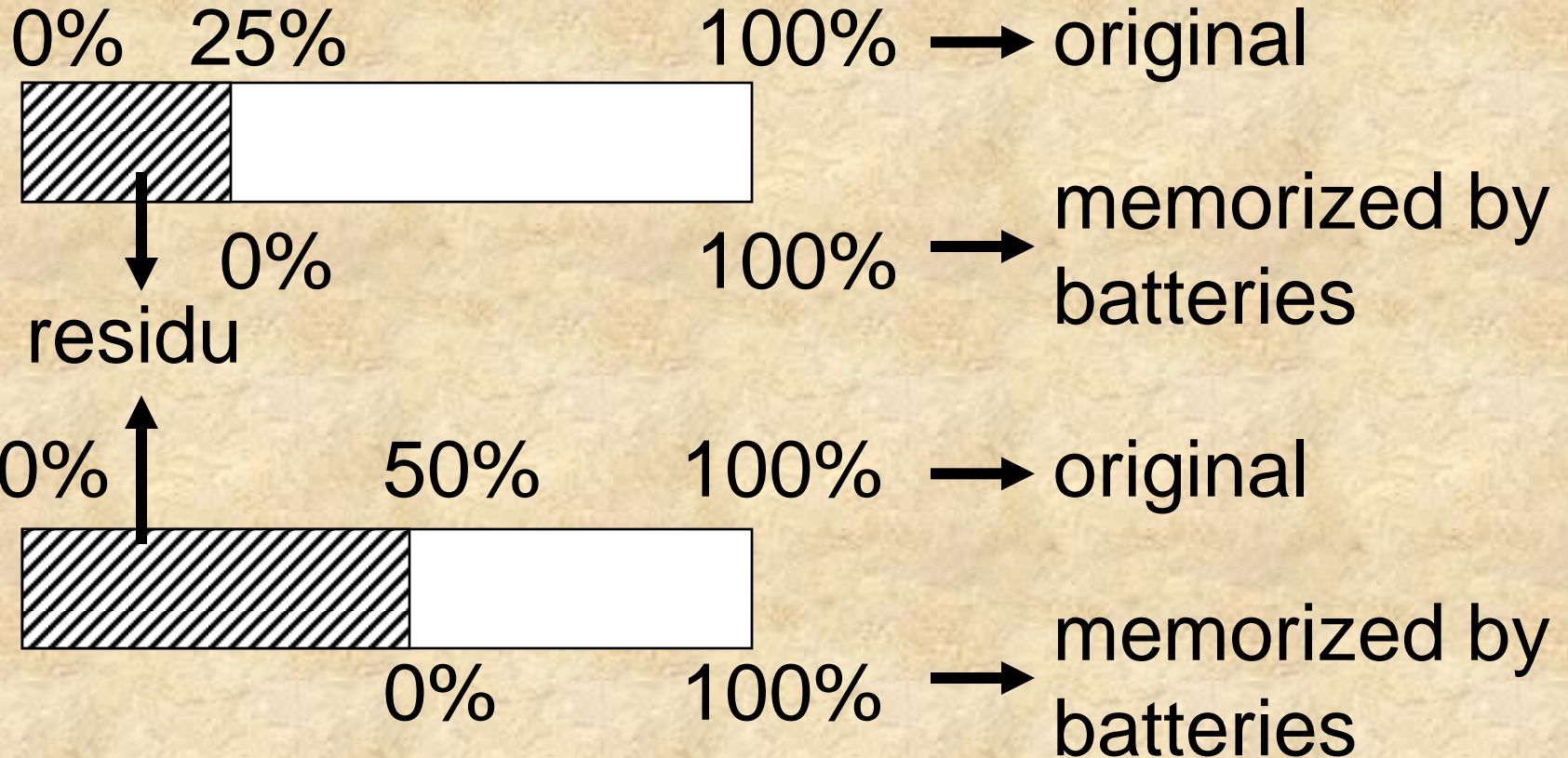
Fully discharge

0%

100%



# Incompletely charge - recharge



- Fresh condition new nickel-cadmium cell.



- Cd(OH)<sub>2</sub> crystals are about 1 micron in cross section
- Exposing large surface area
- Maximum performance.

- Cell with crystalline formation.
- Crystals have grown to 50 to 100 microns in cross section
- Large portions of the active material from the electrolyte are lost
- Jagged edges and sharp corners may pierce the separator, leading to increased self-discharge or electrical short.





- Restored cell.
- Crystals are 3 to 5 microns
- Almost 100% restoration.
- Exercise or recondition are needed if the pulse charge alone is not effective

