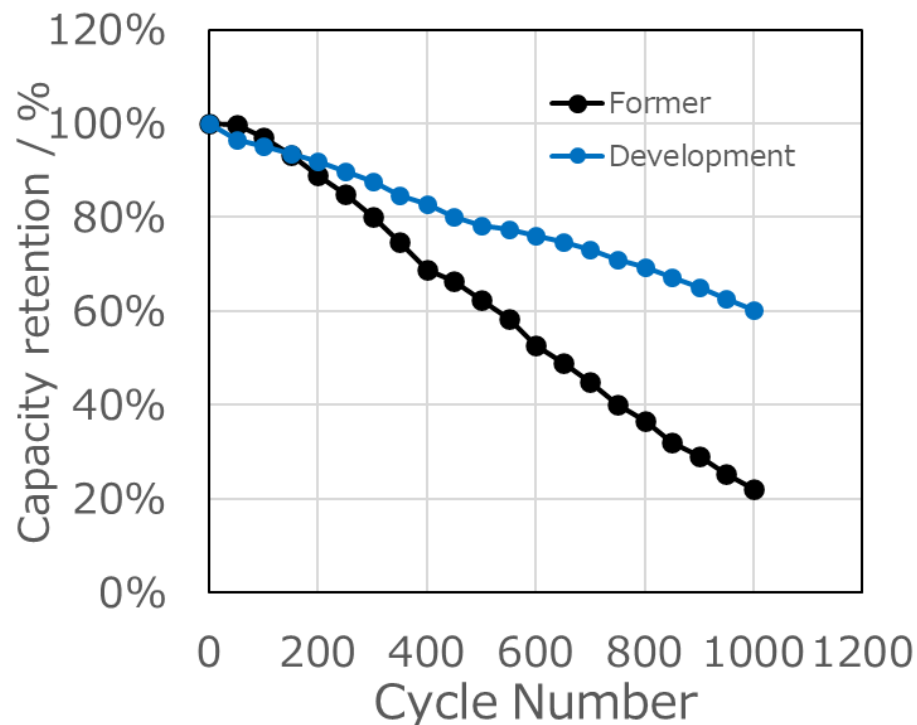


Study of Degradation of Positive Electrode of Nickel-Zinc Secondary Battery by X-ray Absorption Fine Structure analysis of Ni(OH)₂

Objective : Improving cycle capacity reduction caused by positive electrode deterioration due to zinc

Capacity retention



Cycle condition

Cycle condition;

① Capacity test: (1cycle)

Charge : CCCV_0.5It_1.90V_24hr

Rest:15min

Discharge : CC_0.5It (E.V.=1.3V)

Rest:15min

② 2~49cycles

Charge : CC_1.0It (E.V.=1.95V)

Rest:3min

Charge: CCCV_1.0It_1.90V to 0.2It

Rest:15min

Discharge : CC_1.0It to=1.3V

Rest:15min

※ Repeat every 50 cycles and check the capacity ①

Result : We suppressed cathode deterioration and improved cycle capacity decline of the Ni-Zn batteries by using a new positive active material.