

Battery cycling

Early outcome predictor

Training dataset

Bayesian optimization algorithm (BO)

Cycling data
(from first
100 cycles)

Voltage



Cycle life

950 670

540 970

Capacity



780 590

730 980

Cycle life
predictions
(from ML
model)

Parameter 1
(CC1)

Parameter 2
(CC2)

Parameter 3
(CC3)

Modify battery
materials &
processes

Recommended charging protocols (CC1, CC2, CC3)

High uncertainty
(exploration)
High cycle life
(exploitation)

