ABSTRACT

FURNACE ATMOSPHERE CONTROL FOR LITHIUM-ION BATTERY CATHODE MATERIAL PRODUCTION

A method and apparatus for controlling the atmosphere of a multizone calcination (firing) furnace for production of high-quality nickel-rich cathode material for lithium-ion and solid-state batteries. A high-quality oxygen-rich atmosphere is maintained to ensure the quality of the cathode material. An atmosphere control system continuously measures and analyzes the composition of the calcination furnace atmosphere in different zones and adjusts the flowrate of oxygen-rich atmosphere into the furnace to optimize the calcination process.

[No suitable figure]