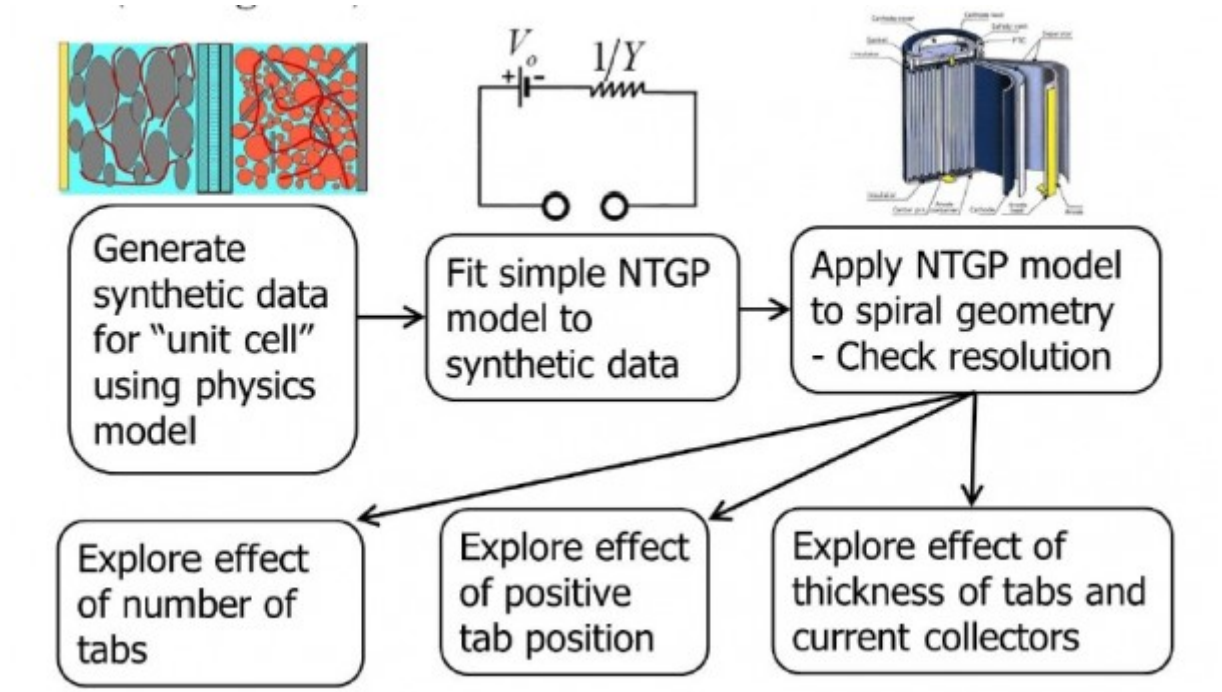
Design and Simulation of Spirally-Wound Lithium-Ion Cells



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Abstract:

A general approach for the design of cylindrical and prismatic spirally-wound lithium-ion cells that accounts for arbitrary tabbing and coating patterns is presented. Examples are presented for design of high-power and high-energy 18650 size cells. For highenergy cells the current collector design is not critical while for high-power cells the tabbing design is significant especially when thermal effects are considered.

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