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(54) Title: HANDHELD ELECTROPORATION DEVICES, AND RELATED SYSTEMS AND METHODS

(57) Abstract: A method for preparing an electroporation device to deliver an electroporation treatment includes steps of delivering a charge current from at least one battery through a charge circuit to a supercapacitor unit and charging the supercapacitor unit with the charge current. The charging step includes measuring one or more input parameters of the charge current while the charge current is in at least one charge state of a plurality of charge states of charging the supercapacitor unit. The charging step also includes at least one step of transitioning the charge current between charge states of the plurality of charge states responsive to the one or more measured input parameters. Transitioning the charge current includes adjusting a magnitude of the charge current. In this method, the measuring and transitioning steps are automatically controlled by a control unit executing machine-readable instructions.