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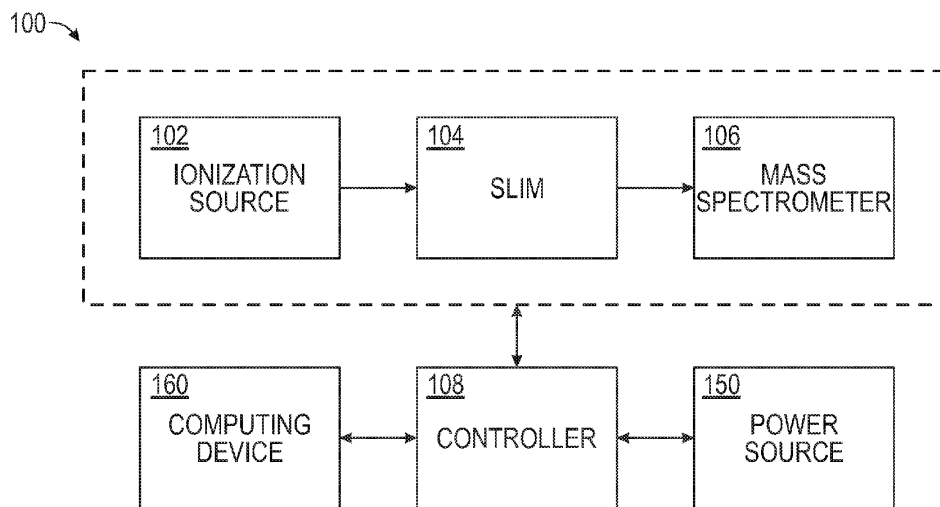


FIG. 1

(57) Abstract: A device including a first surface, a second surface and a controller. The first and the second surfaces define a first ion channel therebetween. The second surface includes a first plurality of electrodes with a first electrode and a second electrode spaced apart, and configured to receive a first voltage signal and generate a pseudopotential that inhibits ions in the first ion channel from approaching the second surface. A second plurality of electrodes is located between the first electrode and the second electrode and are configured to receive a second voltage signal to generate a first travelling drive potential that is configured to guide ions along the first ion channel. The controller is configured to generate the first voltage signal and the second voltage signal.

[Continued on next page]

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