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(54) Title: SYSTEMS AND METHODS FOR CAPTURING FULL RESOLUTION ION MOBILITY DATA AND PERFORMING MULTI-ANALYTE TARGETED DATA ACQUISITION

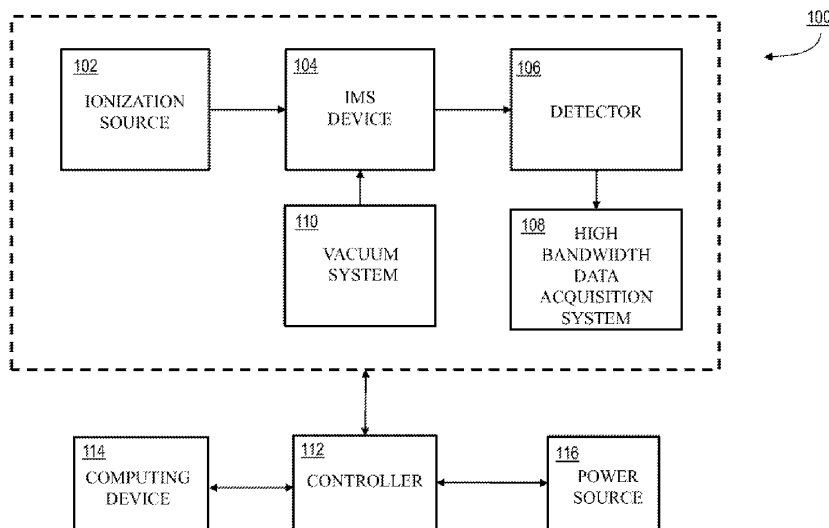


FIG. 1

(57) Abstract: A system for capturing full resolution ion mobility data includes an ion mobility separation device that receives ions, guides a portion thereof, and separates the guided ions based on mobility. An ion detector receives the ions, detects ions having a predefined mass-to-charge ratio during a time period, and generates a responsive signal(s). A data acquisition system receives the signal(s) from the detector and generates a time dependent ion signal representing intensity of the signal(s) at different arrival time periods during the time period. A system for performing multi-analyte targeted data acquisition includes an ion mobility separation device that receives a stream of ions, guides a portion of the ions, and separates the ions based on mobility. An ion detector receives the ions and switches from detecting a first mass-to-charge ratio during a first arrival time to detecting a second mass-to-charge ratio

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