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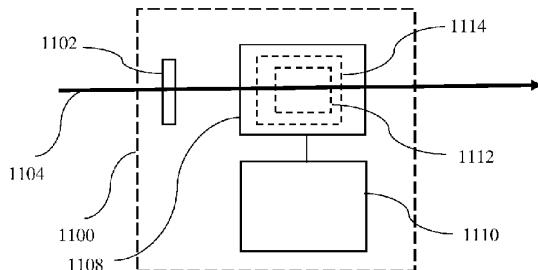


Figure 11

(57) Abstract: A system and method for spatial addressing of individual atomic qubit. The system comprises one or more optical elements for focusing a laser beam onto individual ions localized in an ion trap; a Kerr electro-optic deflector for deflecting the focused laser beam relative to the individual ions; and a drive circuit to drive the Kerr electro-optic deflector; wherein the Kerr electro-optic deflector is configured to deflect the focused laser beam using voltage pulses applied by the drive circuit to an electro-optic material of the Kerr electro-optic deflector for Kerr effect led variation of the refractive index of the electro-optic material.

WO 2025/063887 A1