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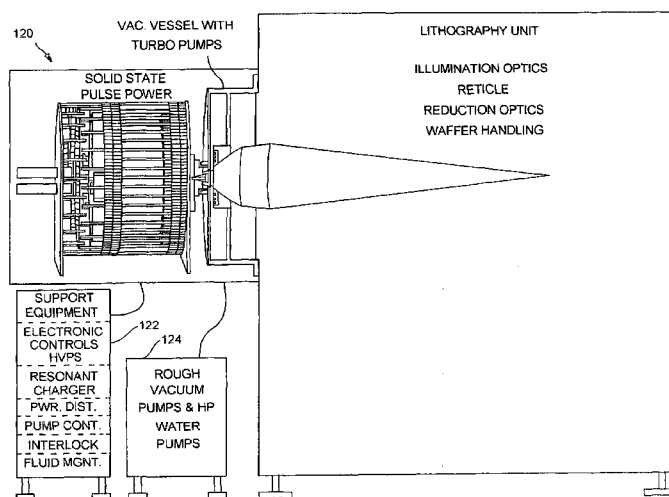
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[Continued on next page]

(54) Title: EXTREME ULTRAVIOLET LIGHT SOURCE



(57) **Abstract:** A reliable, high-repetition rate, production line compatible high energy photon source wherein hot plasma containing an atomic element having an emission line within a desired extreme ultraviolet (EUV) wavelength range is produced in a vacuum chamber. The EUV light source unit is integrated directly into a lithography unit such as a stepper machine. The integrated parts may include a commentator, and a compression head of a solid-state pulse power unit and a vacuum vessel all as shown at (120). Support equipment is located in a support equipment cabinet (122), and rough vacuum pumps and high-pressure water pumps are located in a third cabinet (124). The pulse power unit provides electrical pulses having sufficient energy and electrical potential sufficient to produce the EUV light at an intermediate focus at rates in excess of 5 Watts on a continuous basis and in excess of 20 Watts on a burst basis.



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