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(54) Title: IMMERSION MICROSCOPY ARRANGEMENT FOR SEQUENCING SYSTEM WITH RAPID SCANNING

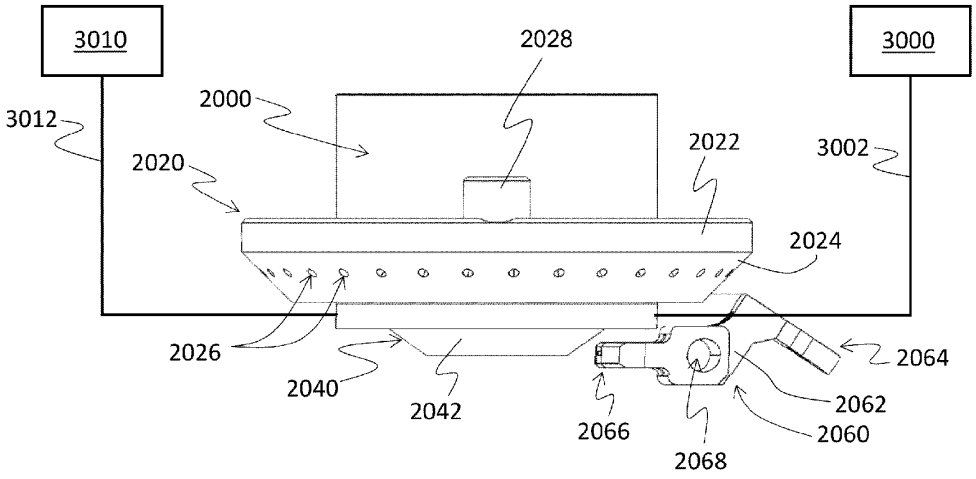


FIG. 12

(57) Abstract: An apparatus includes an imaging assembly and an actuation assembly. The imaging assembly includes an objective lens and an immersion fluid assembly. A first port of the immersion fluid assembly introduces immersion fluid under the bottom surface of the objective lens. A second port of the immersion fluid assembly removes immersion fluid from under the bottom surface of the objective lens. A sidewall of the immersion fluid assembly defines an immersion fluid retention region under the objective lens. The immersion fluid retention region has a first horizontal dimension and a second horizontal dimension orthogonal to the first horizontal dimension. The first horizontal dimension is larger than the second horizontal dimension. The actuation assembly drives relative movement between a flow cell and the imaging assembly along a horizontal path in a direction parallel to the first horizontal dimension.

WO 2025/188823 A8

[Continued on next page]

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