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(54) Title: COMPENSATED MEMS FTIR SPECTROMETER ARCHITECTURE

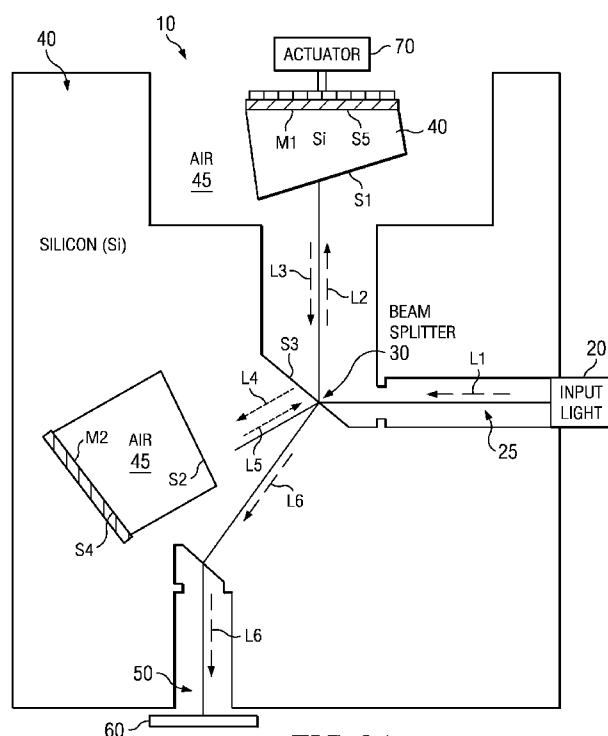


FIG. 3A

(57) Abstract: A Micro Electro-Mechanical System (MEMS) spectrometer architecture compensates for verticality and dispersion problems using balancing interfaces. A MEMS spectrometer/interferometer includes a beam splitter formed on a first surface of a first medium at an interface between the first medium and a second medium, a first mirror formed on a second surface of the first medium, a second mirror formed on a third surface of the first medium and balancing interfaces designed to minimize both a difference in tilt angles between the surfaces and a difference in phase errors between beams reflected from the first and second mirrors.



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