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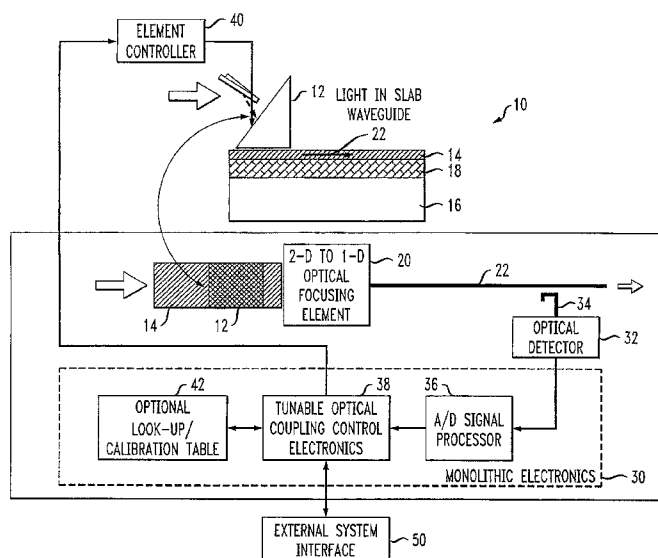
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- (54) Title:** OPTICAL DETECTOR CONFIGURATION AND UTILIZATION AS FEEDBACK CONTROL IN MONOLITHIC INTEGRATED OPTIC AND ELECTRONIC ARRANGEMENTS



- (S7) Abstract:** An improvement in the reliability and lifetime of SOI-based opto-electronic systems is provided through the use of a monolithic opto-electronic feedback arrangement that monitors one or more optical signals within the opto-electronic system and provides an electrical feedback signal to adjust the operation parameters of selected optical devices. For example, input signal coupling orientation may be controlled. Alternatively, the operation of an optical modulator, switch, filter, or attenuator may be under closed-loop feedback control by virtue of the inventive monolithic feedback arrangement. The feedback arrangement may also include a calibration/look-up table, coupled to the control electronics, to provide the baseline signals used to analyze the system's performance.

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