



(12) **United States Patent**
Schober et al.

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(54) **ATOMIC SENSOR PHYSICS PACKAGE HAVING OPTICALLY TRANSPARENT PANES AND EXTERNAL WEDGES**

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(57) **ABSTRACT**

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One embodiment is directed towards a physics package of an atomic sensor. The physics package includes a plurality of panes of optically transparent material enclosing a vacuum chamber and one or more wedges attached to an external surface of one or more of the panes. The physics package also includes at least one of a light source, photodetector, or mirror attached to the one or more wedges, the light source configured to generate an input light beam for the vacuum chamber, the photodetector configured to detect an output light beam from the vacuum chamber, and the mirror configured to reflect a light beam from the vacuum chamber back into the vacuum chamber, wherein the wedge is configured to oriented such a light source, photodetector, or mirror such that a respective light beam corresponding thereto transmits through a corresponding pane at an acute angle with respect to the corresponding pane.

(52) **U.S. Cl.**
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See application file for complete search history.

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