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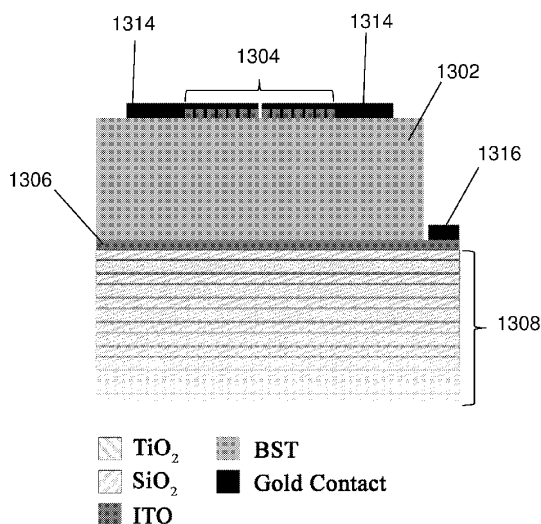
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(54) **Title:** TUNABLE OPTICAL DEVICE AND METHOD OF FORMING THE SAME

FIG. 13B



(57) **Abstract:** Various embodiments may relate to a tunable optical device. The tunable optical device may include a ferroelectric layer including a ferroelectric material. The tunable optical device may also include one or more first electrodes on a first side of the ferroelectric layer. The tunable optical device may further include one or more second electrodes on a second side of the ferroelectric layer opposite the first side. A refractive index of the ferroelectric material may be changeable in response to a potential difference applied between the one or more first electrodes and the one or more second electrodes. The one or more first electrodes and the one or more second electrodes may be configured to allow visible light or infrared light to pass through. In a particular embodiment, the ferroelectric material is barium strontium titanate (BST) and the electrode material is indium tin oxide (ITO).

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