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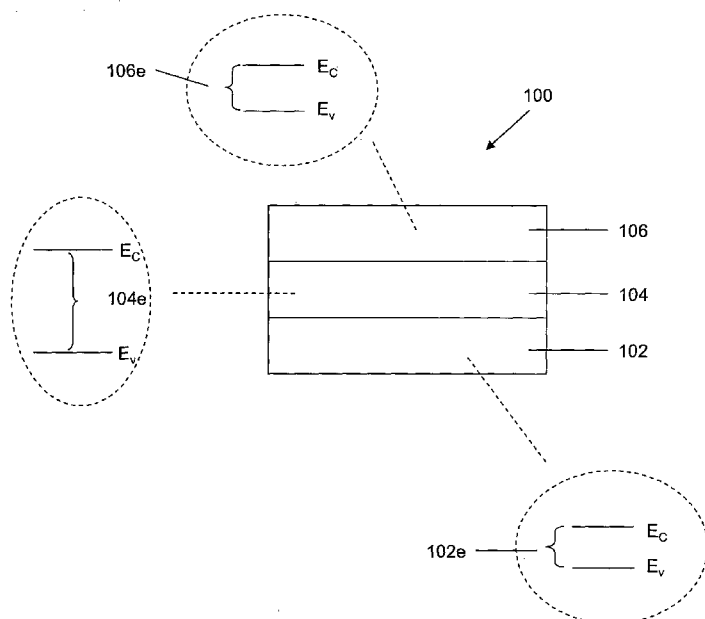
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(54) Title: AVALANCHE PHOTODIODE



(57) Abstract: According to one aspect, there is provided an avalanche photodiode comprising a first semiconductor layer that absorbs photons of a first wavelength range and having a first energy bandgap; a second semiconductor layer that absorbs photons of a second wavelength range and having a second energy bandgap, the second energy bandgap being different from the first energy bandgap; and a control layer between the first semiconductor layer and the second semiconductor layer, the control layer having a third energy bandgap engineered to suppress carriers created from dark current.