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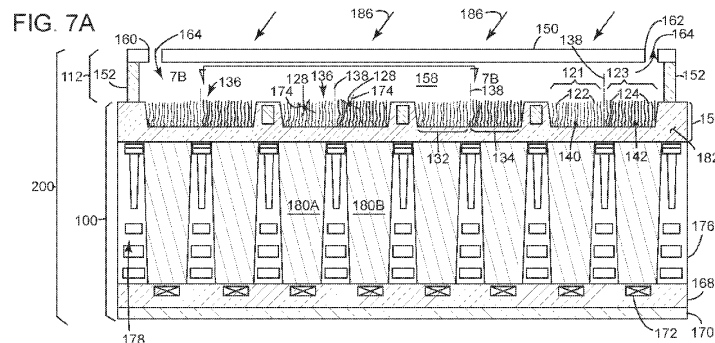
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(54) Title: IMAGE SENSOR STRUCTURES AND RELATED METHODS



(57) Abstract: An image sensor structure includes an image layer having an array of light detectors disposed therein. A device stack is disposed over the image layer. An array of light guides is disposed in the device stack. Each light guide is associated with a light detector. An array of nanowells is disposed over the device stack. Each nanowell is associated with a first light guide of the array of light guides. A first primer set is disposed throughout a first well region of each nanowell. A second primer set is disposed throughout a second well region of each nanowell. The second well region is adjacent the first well region. The first and second primer sets are operable to attach a forward strand cluster of forward polynucleotide strands in the first well region and a reverse strand cluster of reverse polynucleotide strands in the second well region.

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