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(54) Title: TANDEM SOLAR CELL WITH GRAPHENE INTERLAYER AND METHOD OF MAKING

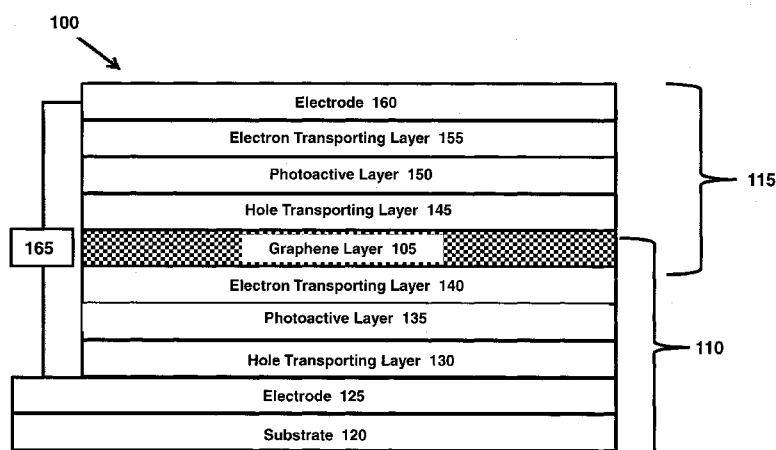


FIG. 1

(57) Abstract: A tandem solar cell with graphene interlayer and method of making are disclosed. The graphene interlayer can serve as a recombination contact to a pair of photoactive subcells electrically connected in series or as a common electrode to a pair of photoactive subcells electrically connected in parallel. The highly conducting, transparent nature, and easily modifiable chemical and electrical properties of a graphene interlayer enable tunable energy matching to the photoactive subcells. Using different photoactive subcells that can harvest light across the solar spectrum results in a tandem solar cell that can achieve high power conversion efficiency.