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(54) **N-TYPE SEMICONDUCTOR LAYER, SOLAR CELL, MULTI-JUNCTION SOLAR CELL, SOLAR CELL MODULE, AND PHOTOVOLTAIC POWER GENERATION SYSTEM**

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(57) **ABSTRACT**

Embodiments described herein relate generally to a n-type layer, a solar cell, a multi-junction solar cell, a solar cell module, and a photovoltaic power generation system. An n-type layer according to an embodiment includes amorphous gallium oxide as a main component. A conductive type of the n-type layer is n-type. One or more lanthanoid series elements whose amount is more than 0 [atom %] and 67 [atom %] or less of Ga contained in the amorphous gallium oxide are doped at Ga (II) site of the amorphous gallium oxide.



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