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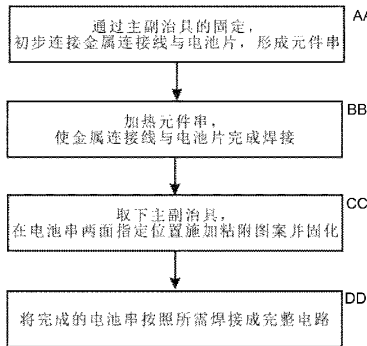
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(54) Title: PHOTOVOLTAIC SOLAR CELL MODULE AND MANUFACTURING METHOD THEREFOR

(54) 发明名称: 一种光伏太阳能电池组件及其制备方法



AA By using a main jig and an auxiliary jig to fix metal connecting wires to cells, preliminarily connect the metal connecting wires to the cells to form element strings

BB Heat the element strings to complete welding of the metal connecting wires to the cells

CC Remove the main jig and the auxiliary jig, apply adhesive patterns to designated positions on two faces of each cell string, and cure same

DD Weld finished cell strings to each other as required, so as to obtain a complete circuit

[图1]

(57) Abstract: The present invention belongs to the technical field of solar photovoltaic apparatus manufacturing. Disclosed is a manufacturing method for a photovoltaic solar cell module. The present invention uses metal connecting wires to connect cells to each other; pad spots are removed in the design of the front and back faces of each cell, reducing optical blocking for the surface of the cell and lowering the costs; and cell strings are formed by using jigs and manipulators to weld the metal connecting wires to the cells, and adhesive patterns are provided and cured on the metal connecting wires of the cell strings, substantially eliminating the risk of connection instability. On this basis, by improving the metal connecting wires, the structures of the jigs, the manner of press-bonding of the metal connecting wires to the cells, the manner of adhesive pattern application, etc., the present invention avoids the problem in the prior art of metal connecting wires and cells separating from each other due to uneven heating. In addition, the present invention reduces the requirement for the degree of positional alignment between the metal connecting wires and cell grid lines, and simplifies the cell string manufacturing process.

[见续页]

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本国际公布:
— 包括国际检索报告(条约第21条(3))。

(57) 摘要: 本发明公开了一种光伏太阳能电池片组件的制造方法, 属于太阳能光伏设备制造技术领域。本发明采用金属连接线连接电池片, 电池片正背面采用去除PAD点设计, 减少了电池片表面的光学遮挡, 降低了成本, 通过治具、机械手将金属连接线与电池片焊接成电池串, 通过在电池串的金属连接线上设置粘附图案并固化, 基本消除了连接不稳定的风险。在此基础上, 通过对金属连接线、治具的结构、金属连接线与电池片的压合方式以及粘附图案的涂敷方式等进行改进, 避免了现有技术中容易因为受热不均而造成的金属连接线与电池片分离的问题。此外, 降低了金属连接线与电池片细栅之间位置的对齐度要求, 简化了电池串的制造工艺。