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(54) Title: HIGH-STRENGTH GRAPHENE HEAT-CONDUCTING PAD AND PREPARATION METHOD THEREFOR

(54) 发明名称: 一种高强度石墨烯导热垫片及其制备方法

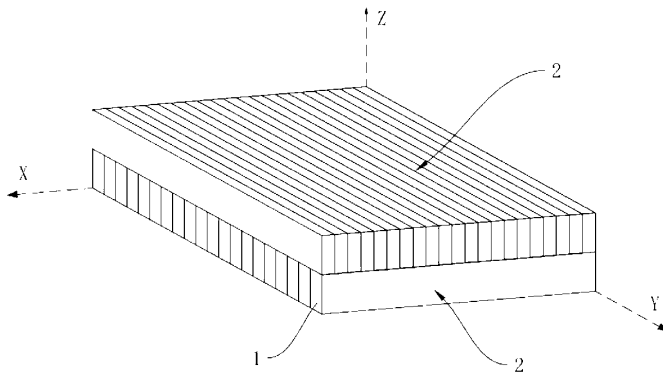


图 1

(57) Abstract: The present application relates to the field of thermal interface materials. Disclosed are a high-strength graphene heat-conducting pad and a preparation method therefor. The high-strength graphene heat-conducting pad comprises at least two graphene heat-conducting layers stacked in sequence, wherein adjacent graphene heat-conducting layers are fixedly adhered by means of an adhesive; the graphene heat-conducting layers comprise a plurality of layers of graphene films stacked in sequence; adjacent graphene films are adhered by means of an adhesive; and the stacking directions of the graphene films of two adjacent graphene heat-conducting layers are perpendicular to each other and parallel to the same plane, and the stacking directions of the graphene heat-conducting layers are perpendicular to the stacking directions of the graphene films in any graphene heat-conducting layer. In the

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present application, the graphene heat-conducting layers prepared by stacking the plurality of layers of graphene films are stacked, such that the stacking directions of the graphene films of adjacent layers are perpendicular to each other, thereby providing good mechanical strength in two directions in the graphene heat-conducting pad, namely, a graphene-film stacking direction and a direction perpendicular to the graphene-film stacking direction.

(57) 摘要: 本申请涉及一种高强度石墨烯导热垫片及其制备方法, 涉及热界面材料的领域, 高强度石墨烯导热垫片包括至少两层依次堆叠的石墨烯导热层, 相邻所述石墨烯导热层通过胶粘剂粘结固定; 所述石墨烯导热层包括多层依次堆叠的石墨烯膜, 相邻所述石墨烯膜通过胶粘剂粘接; 相邻两层所述石墨烯导热层中石墨烯膜的堆叠方向相互垂直且平行于同一平面, 且所述石墨烯导热层的叠层方向与任一层所述石墨烯导热层中石墨烯膜的叠层方向均互相垂直。本申请将多层石墨烯膜堆叠制成的石墨烯导热层进行叠层, 使相邻层中石墨烯膜的堆叠方向垂直, 为石墨烯导热垫片中沿石墨烯堆叠方向和垂直于石墨烯膜堆叠方向这两个方向均提供良好的力学强度。