

Title (en)
METHOD FOR PREPARING HEAT DISSIPATION COMPONENT WITH HIGH FLEXIBILITY MADE OF GRAPHITE OR GRAPHENE MATERIAL

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER WÄRMEABLEITENDEN, AUS GRAPHIT- ODER GRAPHENMATERIAL HERGESTELLTEN KOMPONENTE MIT HOHER FLEXIBILITÄT

Title (fr)
PROCÉDÉ DE PRÉPARATION D'UN COMPOSANT DE DISSIPATION DE CHALEUR AVEC UNE GRANDE FLEXIBILITÉ EN MATÉRIAU DE GRAPHITE OU DE GRAPHÈNE

Publication
EP 4148165 B1 20240417 (EN)

Application
EP 21199008 A 20210924

Priority
CN 202111020365 A 20210908

Abstract (en)
[origin: EP4148165A1] The present disclosure disclose a method for preparing a heat dissipation component with high flexibility made of a graphite or graphene material, which includes that follow steps: 1) plasma cleaning a graphite or graphene raw material; 2) taking preparation materials of an activator including the following components in percentage by weight: 10-20% of sulfuric acid, 0.05-1% of an OP-10 surfactant, 0.05-1% of sodium dodecyl sulfate, and the balance of water; 3) continually cleaning the graphite or graphene raw material with the activator; 4) cleaning the graphite or graphene raw material with deionized water; 5) conducting a electroplating process on a surface of the graphite or graphene raw material to form a copper film layer; 6) continually cleaning the graphite or graphene raw material with deionized water; 7) forming a protective film on the graphite or graphene raw material by soaking; and 8) drying the graphite or graphene raw material electroplated with the copper film layer. Compared with the prior art, in the present disclosure, the surface of graphite or graphene treated with the activator has a uniform copper film layer with good binding quality during electroplating, and the flexibility of the prepared heat dissipation component is enhanced.

IPC 8 full level
C25D 3/38 (2006.01); **C25D 5/10** (2006.01); **C25D 5/48** (2006.01); **C25D 5/54** (2006.01)

CPC (source: CN EP US)
C25D 3/38 (2013.01 - CN EP); **C25D 5/10** (2013.01 - EP); **C25D 5/48** (2013.01 - CN EP); **C25D 5/54** (2013.01 - CN EP US); **F28F 21/02** (2013.01 - US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 4148165 A1 20230315; **EP 4148165 B1 20240417**; **EP 4148165 C0 20240417**; CN 113622007 A 20211109; JP 2023039376 A 20230320; JP 7187069 B1 20221212; KR 102631465 B1 20240131; KR 20230036941 A 20230315; TW 202311157 A 20230316; TW I777783 B 20220911; US 2023070481 A1 20230309

DOCDB simple family (application)
EP 21199008 A 20210924; CN 202111020365 A 20210908; JP 2021153318 A 20210921; KR 20210126760 A 20210924; TW 110135643 A 20210924; US 202117448049 A 20210918