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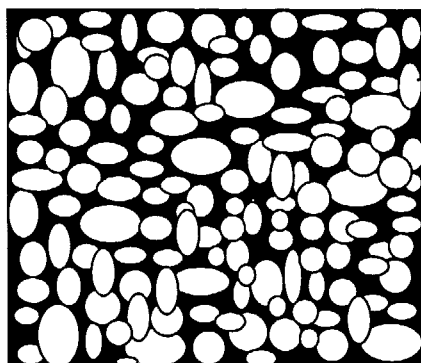
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(54) Title: ELECTRICALLY CONDUCTIVE THERMAL INTERFACE



3

5

(57) Abstract: A porous, flexible, resilient heat transfer material which comprises network of metal flakes. Such heat transfer materials are preferably produced by first forming a conductive paste comprising a volatile organic solvent and conductive metal flakes. The conductive paste is heated to a temperature below the melting point of the metal flakes, thereby evaporating the solvent and sintering the flakes only at their edges. The edges of the flakes are fused to the edges of adjacent flakes such that open pores are defined between at least some of the adjacent flakes, thereby forming a network of metal flakes. This network structure allows the heat transfer material to have a low storage modulus of less than about 10 Gpa, while having good electrical resistance properties.

WO 03/041165 A2