

Title (en)
METHOD OF MAKING A STRUCTURE WITH IMPROVED MATERIAL PROPERTIES BY MODERATE HEAT TREATMENT OF A METAL DEPOSIT

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER STRUKTUR MIT VERBESSERTEN WERKSTOFFEIGENSCHAFTEN DURCH MÄSSIGE WÄRMEBEHANDLUNG EINER METALLBESCHICHTUNG

Title (fr)
PROCEDE D'OBTENTION DE STRUCTURES AUX PROPRIETES MECANIQUEES AMELIOREES PAR TRAITEMENT THERMIQUE MODERE D'UN DEPOT METALLIQUE

Publication
EP 1023469 A1 20000802 (EN)

Application
EP 98930127 A 19980611

Priority
• US 9812094 W 19980611
• US 93192397 A 19970917

Abstract (en)
[origin: WO9914404A1] Deposition of metal in a preferred shape, including coatings (206) on parts (204), or stand-alone materials (300), and subsequent heat treatment (106) to provide improved mechanical properties. In particular, the method gives products with relatively high yield strength. The products often have relatively high elastic modulus, and are thermally stable, maintaining the high yield strength at temperatures considerably above 25 DEG C. This technique involves depositing a material (206) in the presence of a selected additive, and then subjecting the deposited material to a moderate heat treatment (106). This moderate heat treatment differs from other commonly employed "stress relief" heat treatments in using lower temperatures and/or shorter times, preferably just enough to reorganize the material to the new, desired form. For example, coating and heat treating a spring-shaped elongate member provides a resilient, conductive contact (212, 920, 1060) useful for electronic applications.

IPC 1-7
C25D 7/00; H01L 23/48

IPC 8 full level
B81B 7/00 (2006.01); **C25D 5/50** (2006.01); **C25D 7/00** (2006.01); **C25D 7/12** (2006.01); **G01R 1/067** (2006.01); **H01L 21/00** (2006.01); **H01L 21/48** (2006.01); **H01L 21/768** (2006.01); **H01L 23/32** (2006.01); **H01L 23/50** (2006.01)

CPC (source: EP KR)
B81B 7/0006 (2013.01 - EP KR); **C25D 5/617** (2020.08 - KR); **C25D 5/619** (2020.08 - KR); **C25D 7/0614** (2013.01 - EP KR); **H01L 21/4846** (2013.01 - EP KR); **H01L 21/67288** (2013.01 - EP); **H01L 24/11** (2013.01 - EP KR); **H01L 24/13** (2013.01 - EP KR); **H01L 24/16** (2013.01 - EP KR); **C25D 3/562** (2013.01 - KR); **H01L 21/67288** (2013.01 - KR); **H01L 2224/0231** (2013.01 - EP KR); **H01L 2224/02335** (2013.01 - EP KR); **H01L 2224/0401** (2013.01 - EP KR); **H01L 2224/11472** (2013.01 - EP KR); **H01L 2224/11474** (2013.01 - EP KR); **H01L 2224/13012** (2013.01 - EP KR); **H01L 2224/13016** (2013.01 - EP KR); **H01L 2224/13099** (2013.01 - EP); **H01L 2224/13144** (2013.01 - EP); **H01L 2224/45144** (2013.01 - EP); **H01L 2924/01005** (2013.01 - EP); **H01L 2924/01006** (2013.01 - EP); **H01L 2924/01011** (2013.01 - EP); **H01L 2924/01012** (2013.01 - EP); **H01L 2924/01013** (2013.01 - EP); **H01L 2924/01016** (2013.01 - EP); **H01L 2924/01022** (2013.01 - EP); **H01L 2924/01023** (2013.01 - EP); **H01L 2924/01024** (2013.01 - EP); **H01L 2924/01025** (2013.01 - EP); **H01L 2924/01027** (2013.01 - EP); **H01L 2924/01028** (2013.01 - EP KR); **H01L 2924/01029** (2013.01 - EP); **H01L 2924/01033** (2013.01 - EP); **H01L 2924/01039** (2013.01 - EP); **H01L 2924/01042** (2013.01 - EP); **H01L 2924/01045** (2013.01 - EP); **H01L 2924/01046** (2013.01 - EP); **H01L 2924/01047** (2013.01 - EP); **H01L 2924/01057** (2013.01 - EP); **H01L 2924/01061** (2013.01 - EP); **H01L 2924/01074** (2013.01 - EP); **H01L 2924/01075** (2013.01 - EP); **H01L 2924/01076** (2013.01 - EP); **H01L 2924/01078** (2013.01 - EP); **H01L 2924/01079** (2013.01 - EP); **H01L 2924/01082** (2013.01 - EP); **H01L 2924/014** (2013.01 - EP KR); **H01L 2924/14** (2013.01 - EP KR); **H01L 2924/30107** (2013.01 - EP KR)

Citation (search report)
See references of WO 9914404A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 9914404 A1 19990325; AU 7959298 A 19990405; CN 1278308 A 20001227; EP 1023469 A1 20000802; JP 2001516812 A 20011002; KR 20010024022 A 20010326; TW 473562 B 20020121

DOCDB simple family (application)
US 9812094 W 19980611; AU 7959298 A 19980611; CN 98810843 A 19980611; EP 98930127 A 19980611; JP 2000511937 A 19980611; KR 20007002755 A 20000316; TW 87120343 A 19981208