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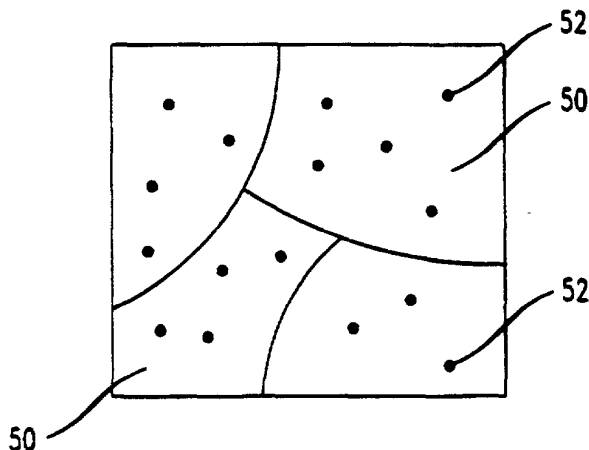
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(54) **Article comprising improved noble metal-based alloys and method for making the same**

(57) A device having electrical contacts formed from an alloy having improved wear resistance is provided, the alloy being particularly useful in microrelay devices formed by MEMS technology. In one embodiment, the alloys are chosen to allow sufficient precipitation hardening to improve wear resistance, but keep precipitation below a level that would unacceptably reduce electrical

conductivity. This is achieved by using alloying materials that have very limited or no solid solubility in the noble metal matrix, e.g., less than 4 wt.% solid solubility. In a second embodiment, an alloy contains a noble metal matrix and insoluble, dispersoid particles having no solubility in the matrix, these dispersoid particles offering a similar strengthening mechanism.

FIG. 4



EP 1 096 523 A3



European Patent
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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 534 407 A (MALLORY & CO INC P R) 6 March 1941 (1941-03-06) * the whole document *	1	H01H1/02
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A	US 2 272 063 A (HENSEL FRANZ R ET AL) 3 February 1942 (1942-02-03) * the whole document *	1-21	
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			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H01H C22C B81B B81C
-The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 17 January 2003	Examiner Glaman, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EP 00 30 9103

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-21

European Patent
OfficeLACK OF UNITY OF INVENTION
SHEET B

Application Number

EP 00 30 9103

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-21

An article comprising at least one electrical contact formed from an electrically conductive alloy comprising one or more noble metal elements and one or more alloying elements with limited solid solubility in the noble metal matrix and fabrication process for it.

2. Claims: 22-35

An article comprising at least one electrical contact formed from an electrically conductive alloy comprising one or more noble metal elements and one or more types of insoluble dispersoid particles and fabrication process for it.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 9103

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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17-01-2003

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