

## **PCT**

# WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



### INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5:

. . .

GB

(11) International Publication Number:

WO 90/04911

H05K 3/10, 3/18, C23C 18/16

| A1

(43) International Publication Date:

3 May 1990 (03.05.90)

(21) International Application Number:

PCT/GB89/01282

(22) International Filing Date:

27 October 1989 (27.10.89)

(30) Priority data:

8825219.2

27 October 1988 (27.10.88)

(74) Agent: PHILLIPS & LEIGH; 7 Staple Inn, Holborn, London WCIV 7QF (GB).

(71) Applicant (for all designated States except US): MORGAN MATERIALS TECHNOLOGY LIMITED [GB/GB]; Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR (GB).

(72) Inventors; and

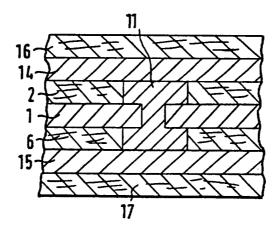
(75) Inventors, and
(75) Inventors/Applicants (for US only): GUEST, Peter, Anthony
[GB/GB]; MBM Technology Limited, Victoria Road,
Porstlade, East Sussex BN4 1YH (GB). BETTERIDGE,
Ian, Arthur [GB/GB]; MBM Technology Limited, Victoria Road, Portslade, East Sussex BN4 1YH (GB).

(81) Designated States: AT, AT (European patent), AU, BB, BE (European patent), BF (OAPI patent), BG, BJ (OAPI patent), BR, CF (OAPI patent), CG (OAPI patent), CH, CH (European patent), CM (OAPI patent), DE, DE (European patent), DK, FI, FR (European patent), GA (OAPI patent), GB, GB (European patent), HU, IT (European patent), JP, KP, KP, LK, LU, LU (European patent), MC, MG, ML (OAPI patent), MR (OAPI patent), MW, NL, NL (European patent), NO, RO, SD, SE, SE (European patent), SN (OAPI patent), SU, TD (OAPI patent), TG (OAPI patent), US.

#### Published

With international search report.

(54) Title: FINE FEATURED ELECTRICAL CIRCUITS



### (57) Abstract

A method of forming electrical circuits is described by the process of electroless deposition of conductive material onto a substrate having receptive and non-receptive areas such that the conductive material is deposited on the receptive areas and not on the non-receptive areas thereby forming a desired conductor pattern, comprising sequentially the steps of: i) taking a substrate comprising a receptive body (1) formed of insulating material receptive to, or treatable so as to be receptive to, electroless deposition of conductive material; and a non-receptive covering (2, 6) of insulating material overlying the receptive body; ii) removing material by stepwise machining through the depth of the non-receptive covering by ultra-violet induced ablation so as to expose the receptive body in the form of a desired conductor pattern; and iii) electrolessly depositing conductive material (11) on the exposed receptive body to form the conductor pattern. Further layers of receptive material (14, 15) and non-receptive material (16, 17) may be applied to allow further circuit layers to be made. An excimer laser is a suitable source of ultraviolet radiation.

# FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

••	100000	TOP:	Socio	MG	Madagascar
ΑT	Austria .	ES	Spain	ML	Mali
ΑU	Australia	FT	Finland	MR	Mauritania
BB	Barbados	FR	France	MW	Malawi
BΕ	Belgium	GA.	Gabon	NL	Netherlands
BF	Burkina Fasso	GB	United Kingdom	NO	Norway
BG	Bulgaria	HU	Hungary	RO	Romania
BJ	Benin	π	Italy	SD	Sudan
BR	Brazil	JР	Japan	SE	Sweden
CA	Canada	KP	Democratic People's Republic	SN	Senegal
Œ	Central African Republic		of Korea	SÜ	Soviet Union
CG	Congo	KR	Republic of Korea	TD	Chad
CH	Switzerland	Ц	Liechtenstein	TG	Togo
CM	Cameroon	LK	Sri Lanka	US	United States of America
DE	Germany, Federal Republic of	w	Luxembourg	LS	Olinos samuel Caracteria
DK	Denmark	MC	Monaco		