



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 21 87 03 45

### Classification of the application (IPC):

G21C 11/02, G21C 13/02, G21D 1/00, G21D 1/02, G21F 5/00, G21F 5/14,  
G21C 5/02

### Technical fields searched (IPC):

G21C, G21D, G21F

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 10229757 B2 (LOGOS TECH LLC [US]) 12 March 2019 (2019-03-12) * figures 1,4,5,17,18,22,23,23A *	1-5, 8-16, 21, 23, 28-30
Y	* column 4, line 10 - line 41 * * column 6, line 26 - line 36 * * column 7, line 53 - column 8, line 23 * * column 10, line 58 - column 12, line 37 * * column 13, line 43 - column 14, line 2 * * column 16, line 15 - line 35 * * column 17, line 24 - line 36 *	6, 7, 17-20, 22, 24-27
Y	US 4447734 A (KUSUMEGI ASAO [JP] ET AL) 08 May 1984 (1984-05-08)	6, 7
A	* column 2, line 11 - line 13 * * column 8, line 36 - line 61 *	1-5, 8-30
Y	US 4743423 A (TURNER ROBERT L [US] ET AL)	17, 18
A	10 May 1988 (1988-05-10) * claims 1-3 *	1-16, 19-30
Y	US 3239422 A (HUGH CAMPBELL RONALD) 08 March 1966 (1966-03-08)	17, 19, 20
A	* column 1, line 46 - column 2, line 2 *	1-16, 18, 21-30
Y	US 4090087 A (WEISSENFLOH JOHN ANDREW)	22, 24-27
A	16 May 1978 (1978-05-16) * column 1, line 6 - line 10 * * column 2, line 44 - line 68 * * column 4, line 65 - column 5, line 9 *	1-21, 23, 28-30

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 09 January 2024	Examiner Grivas, Symeon
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### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

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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 09-01-2024.  
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