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SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 21 90 44 28

Classification of the application (IPC):

C23C 16/34, C23C 16/455, C23C 16/04, H01L 21/02, H01L 21/28, H01L 21/768 C23C

Technical fields searched (IPC):

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2013164936 A1 (OSHIMO KENTARO [JP] ET AL)	1-9
Y	27 June 2013 (2013-06-27) * paragraphs [0030], [0034], [0076], [0090], [0106] *	1, 4, 9
X	US 2018311700 A1 (ASHIZAWA HIROAKI [JP] ET AL)	1-12
Y	01 November 2018 (2018-11-01) * paragraphs [0121], [0127] *	1, 4, 9
X	US 2003124798 A1 (LIM HYUN-SEOK [KR] ET AL)	1-10
Y	03 July 2003 (2003-07-03) * paragraphs [0024], [0060] *	1, 4, 9
Y	DATABASE INSPEC [Online] THE INSTITUTION OF ELECTRICAL ENGINEERS, STEVENAGE, GB BUITING M J ET AL : "Relationship between the process parameters and film properties of 'low temperature' low pressure chemical vapor deposition titanium nitride films", September 1992 (1992-09), Database accession no. 4262002, XP002811449 * abstract; figure 7c * & <i>JOURNAL OF THE ELECTROCHEMICAL SOCIETY USA</i> , September 1992 (1992-09), vol. 139, no. 9, ISSN: 0013-4651, pages 2580-2584, XP002811734	1
Y	K Jun : "Effect of Partial Pressure of TiCl ₄ and NH ₃ on Chemical Vapor Deposition Titanium Nitride (CVD-TiN) Film Cl Content and Electrical Resistivity" <i>Japanese Journal of Applied Physics</i> , 15 April 2004 (2004-04-15), pages L519-521 URL: https://iopscience.iop.org/article/10.1143/JJAP.43.L519/pdf , DOI: 10.1143/JJAP.43.L519, XP093154884 * figures 2,3 *	4, 9
A	US 2006128127 A1 (SEO JUNG-HUN [KR] ET AL) 15 June 2006 (2006-06-15) * the whole document *	1-12

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 The Hague	Date of completion of the search 12 June 2024	Examiner Schafranek, Robert
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CATEGORY OF CITED DOCUMENTS

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Application number:
EP 21 90 44 28

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
A	US 2019304790 A1 (MOUSA MOATAZ BELLAH [US] ET AL) 03 October 2019 (2019-10-03) * the whole document *	1-12

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 The Hague	Date of completion of the search 12 June 2024	Examiner Schafranek, Robert
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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
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Application number:
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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 12-06-2024
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