



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 88 30 47

**Classification of the application (IPC):**  
H01Q 3/32, H01P 1/18, H01Q 3/24, H01Q 1/24

**Technical fields searched (IPC):**  
H01P

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2773242 A (GRIEG DONALD D) 04 December 1956 (1956-12-04) * column 2, line 13 - column 4, line 11; figures 1-4 *	1-3, 10, 15
X	US 2990523 A (JACQUES GEORGE E) 27 June 1961 (1961-06-27) * column 2, line 64 - column 3, line 36; figures 3,4 *	1-3, 10, 15
A	WO 2018120618 A1 (SHENZHEN GRENTech CORPORATION LTD [CN]) 05 July 2018 (2018-07-05) * abstract; figures 3-6 *	1-15
A	US 2011140805 A1 (LIU NIAN-QIANG [TW] ET AL) 16 June 2011 (2011-06-16) * paragraph [0028] - paragraph [0035]; figures 1-6 *	1-15

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 29 November 2021	Examiner Pastor Jiménez, J
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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 29-11-2021  
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2773242	A	04-12-1956	NONE	
US 2990523	A	27-06-1961	NONE	
WO2018120618	A1	05-07-2018	NONE	
US 2011140805	A1	16-06-2011	NONE	