



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 21 78 46 47

**Classification of the application (IPC):**  
H01L 27/15, H01L 33/00, H01L 33/38, H01L 33/44, H01L 25/075

**Technical fields searched (IPC):**  
H01L

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X A	US 2018287027 A1 (HAJI GHOLAMREZA [CA]) 04 October 2018 (2018-10-04) * figures 10C,10D * * paragraphs [0153], [0154], [0157] *	1-4, 6-9, 11-14 5, 10, 15
A	US 2019164947 A1 (YOO TAEKYUNG [KR]) 30 May 2019 (2019-05-30) * figures 1-8 * * paragraphs [0027] - [0072] *	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 27 March 2024	Examiner Adams, Richard
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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 27-03-2024  
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