

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2020/052036

**A. CLASSIFICATION OF SUBJECT MATTER***A47K 10/06*(2006.01)i; *F24H 3/00*(2006.01)i; *A61N 5/06*(2006.01)i; *A61F 7/00*(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

A47K; F24H; A61N; A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	GB 2501670 A (TANSUN LTD [GB]) 06 November 2013 (2013-11-06) page 4, line 15 - page 8, line 20; claims; figures	1,2 3-20
X Y	EP 3135337 A1 (TISOFT WOJCIECH JEDRZEJEWSKI [PL]) 01 March 2017 (2017-03-01) claims; figures paragraph [0001] paragraph [0005] paragraph [0008] paragraph [0011]	1,2 3-20
Y	WO 2017158537 A1 (ZEHNDER GROUP INT AG [CH]) 21 September 2017 (2017-09-21) cited in the application the whole document claims 1-3-11-14	3-20
Y	WO 2017109622 A1 (ZEHNDER GROUP INT AG [CH]) 29 June 2017 (2017-06-29) page 7, line 25 - page 8, line 20; claims; figures	3-20

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

05 May 2020

Date of mailing of the international search report

13 May 2020

Name and mailing address of the ISA/EP

European Patent Office  
p.b. 5818, Patentlaan 2, 2280 HV Rijswijk  
Netherlands

Telephone No. (+31-70)340-2040

Facsimile No. (+31-70)340-3016

Authorized officer

Rodríguez Cosío, J

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2020/052036

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 102015107669 A1 (ALOIS HEILER GMBH [DE]) 17 November 2016 (2016-11-17) claims; figures paragraph [0018] paragraph [0020] paragraph [0024] - paragraph [0025] paragraph [0032] paragraph [0035] paragraph [0041] - paragraph [0046]	5-20
Y	WO 2018067411 A1 (BENESOL INC [US]) 12 April 2018 (2018-04-12) claims; figures paragraph [0025] paragraph [0035] - paragraph [0037]	5-20

**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

International application No.

**PCT/IB2020/052036**

Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
GB 2501670 A	06 November 2013	NONE	
EP 3135337 A1	01 March 2017	EP 3135337 A1	01 March 2017
		US 2017049990 A1	23 February 2017
WO 2017158537 A1	21 September 2017	EA 201891859 A1	30 April 2019
		EP 3430324 A1	23 January 2019
		WO 2017158537 A1	21 September 2017
WO 2017109622 A1	29 June 2017	CN 108697280 A	23 October 2018
		EA 201891288 A1	31 January 2019
		EP 3393318 A1	31 October 2018
		WO 2017109622 A1	29 June 2017
DE 102015107669 A1	17 November 2016	NONE	
WO 2018067411 A1	12 April 2018	AU 2017339406 A1	02 May 2019
		CA 3036581 A1	12 April 2018
		CN 110035795 A	19 July 2019
		EP 3519048 A1	07 August 2019
		US 2020030628 A1	30 January 2020
		WO 2018067411 A1	12 April 2018