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(54) **SMOKING SUBSTITUTE CONSUMABLE**

(57) The present disclosure provides an aerosol-forming article comprising an aerosol-forming substrate (2) and an axially adjacent, downstream filter arrangement. The filter arrangement comprises an upstream filter element (4), an intermediate filter element (6) and a terminal filter element (5). The upstream and

terminal filter elements are independently selected from a solid filter element and a hollow bore filter element. The intermediate filter element is a hollow bore filter element having a greater bore diameter than any other hollow bore filter element in the filter arrangement.

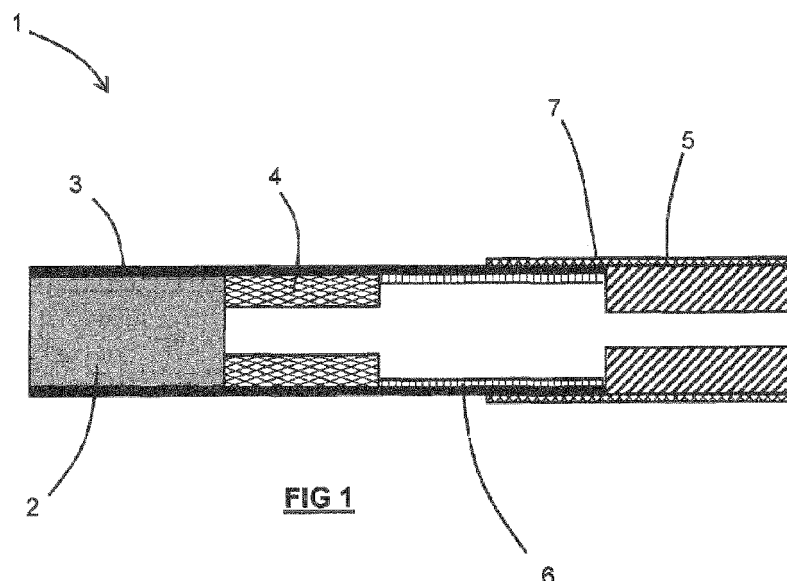


FIG 1



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 96/39880 A1 (PHILIP MORRIS PROD [US]; ADAMS JOHN M [US] ET AL.) 19 December 1996 (1996-12-19)	1-10, 12-15	INV. A24D1/20 A24D3/04
A	* page 13, line 25 - page 14, line 8; figures 1-3 * * page 2, line 11 - line 12 * * page 9, line 14 - line 17 * * page 12, line 12 - line 23 * * page 14, line 20 - line 21 * -----	11	
X	CN 108 113 051 A (GONGQINGCHENG DAOLE INVESTMENT MANAGEMEN) 5 June 2018 (2018-06-05)	1-10, 12-15	
A	* abstract * & EP 3 494 809 A1 (GONGQINGCHENG DAOLE INVESTMENT MAN PARTNERSHIP LLP [CN]) 12 June 2019 (2019-06-12) * paragraph [0041]; claims; figures 2-3; examples 2-3 * * paragraph [0035] - paragraph [0039] * -----	11	
X	WO 2013/178767 A1 (PHILIP MORRIS PROD [CH]) 5 December 2013 (2013-12-05)	1-10, 12-15	TECHNICAL FIELDS SEARCHED (IPC) A24D A24F
A	* page 13, line 16 - page 14, line 13; figures 3-4 * -----	11	
A	CN 108 185 517 A (CHINA TOBACCO YUNNAN IND CO LTD) 22 June 2018 (2018-06-22) * claims; figures; examples 1-3 * -----	1-15	
A	CN 206 729 213 U (YUNNAN CHINA TOBACCO NEW MATERIAL TECH CO LTD) 12 December 2017 (2017-12-12) * claims; figures * ----- - / - -	1-15	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 25 September 2024	Examiner Marzano Monterosso
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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EUROPEAN SEARCH REPORT

Application Number

EP 24 16 6528

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	EP 3 295 811 A1 (JAPAN TOBACCO INC [JP]) 21 March 2018 (2018-03-21) * paragraph [0012] * * paragraph [0033] - paragraph [0034]; figures * * paragraph [0040] * * paragraph [0058]; claims * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		25 September 2024	Marzano Monterosso
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
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ON EUROPEAN PATENT APPLICATION NO.

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25-09-2024

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9639880	A1	19-12-1996	
		AR 002413 A1	11-03-1998
		AT E229284 T1	15-12-2002
		AU 694368 B2	16-07-1998
		BG 62837 B1	29-09-2000
		BR 9609036 A	06-07-1999
		CA 2223743 A1	19-12-1996
		CN 1190873 A	19-08-1998
		CO 4750605 A1	31-03-1999
		CR 5347 A	24-09-1997
		CZ 295923 B6	16-11-2005
		DE 69625357 T2	30-10-2003
		DK 0836390 T3	31-03-2003
		DZ 2050 A1	21-07-2002
		EA 199800018 A1	24-12-1998
		EP 0836390 A1	22-04-1998
		ES 2188758 T3	01-07-2003
		HR P960251 A2	31-10-1997
		HU 228650 B1	29-04-2013
		ID 16332 A	25-09-1997
		JP 3786698 B2	14-06-2006
		JP H11507234 A	29-06-1999
		KR 19990022540 A	25-03-1999
		MA 23898 A1	31-12-1996
		MY 112837 A	29-09-2001
		NO 318386 B1	14-03-2005
		NZ 310328 A	26-02-1998
		OA 10642 A	25-04-2001
		PL 323872 A1	27-04-1998
		PT 836390 E	30-04-2003
		RO 119679 B1	28-02-2005
		SI 0836390 T1	30-06-2003
		SK 167497 A3	09-09-1998
		TR 199701530 T1	22-06-1998
		TW 371620 B	11-10-1999
		UA 53621 C2	17-02-2003
		US 5666976 A	16-09-1997
		WO 9639880 A1	19-12-1996
		ZA 964815 B	09-02-1998

CN 108113051	A	05-06-2018	
		CN 108113051 A	05-06-2018
		EP 3494809 A1	12-06-2019
		PT 3494809 T	19-05-2021
		RU 205534 U1	19-07-2021
		TW 201924547 A	01-07-2019
		WO 2019109926 A1	13-06-2019
		ZA 201804614 B	27-03-2019

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ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 24 16 6528

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The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

25-09-2024

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2013178767 A1	05-12-2013	AR 091211 A1	21-01-2015
		AU 2013269590 A1	22-01-2015
		BR 112014029622 A2	27-06-2017
		CA 2875187 A1	05-12-2013
		CN 104379003 A	25-02-2015
		DK 2854570 T3	03-10-2016
		EP 2854570 A1	08-04-2015
		ES 2592560 T3	30-11-2016
		HK 1203774 A1	06-11-2015
		HU E029589 T2	28-03-2017
		JP 6580485 B2	25-09-2019
		JP 6768032 B2	14-10-2020
		JP 2015517818 A	25-06-2015
		JP 2018186818 A	29-11-2018
		KR 20150021929 A	03-03-2015
		LT 2854570 T	26-09-2016
		MX 363824 B	04-04-2019
		MY 167953 A	08-10-2018
		NZ 703081 A	27-05-2016
		PH 12014502514 A1	22-12-2014
		PL 2854570 T3	31-08-2017
		PT 2854570 T	19-09-2016
		RU 2634858 C1	07-11-2017
		SG 112014079148 A	30-12-2014
		TW 201402026 A	16-01-2014
		UA 113765 C2	10-03-2017
		US 2015107610 A1	23-04-2015
		WO 2013178767 A1	05-12-2013
		ZA 201408254 B	23-12-2015
CN 108185517 A	22-06-2018	NONE	
CN 206729213 U	12-12-2017	NONE	
EP 3295811 A1	21-03-2018	CN 107613794 A	19-01-2018
		EP 3295811 A1	21-03-2018
		HK 1244636 A1	17-08-2018
		JP 6419322 B2	07-11-2018
		JP 6773337 B2	21-10-2020
		JP 2018191652 A	06-12-2018
		JP WO2016181843 A1	09-11-2017
		KR 20170136599 A	11-12-2017
		RU 2671646 C1	06-11-2018
		TW 201703655 A	01-02-2017
		US 2018064161 A1	08-03-2018

EPO FORM P0459

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ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

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25-09-2024

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
			WO 2016181843 A1	17-11-2016
15				
20				
25				
30				
35				
40				
45				
50				

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