



SUPPLEMENTARY PARTIAL EUROPEAN SEARCH REPORT

under Rule 62a and/or 63 of the European Patent Convention. This report shall be considered, for the purposes of subsequent proceedings, as the European search report

Application number:
EP 19 87 70 95

Classification of the application (IPC):

**B01D 53/02, B01D 53/04, B01D 53/86, B01D 53/94, B01J 23/34, B01J 23/656, B01J, G01N, B01D
B01J 20/20, B01D 39/16, B01J 20/28, B01J 20/32**

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 2006182669 A1 (MATUMURA YUJI [JP] ET AL) 17 August 2006 (2006-08-17) * paragraphs [0012] - [0014], [0017], [0025], [0027] - [0029], [0032], [0033], [0038], [0039], [0055], [0060]; example 1 *	1-8, 10-14
X	WO 2018005052 A1 (BASF CORP [US]) 04 January 2018 (2018-01-04) * paragraphs [0002], [0007], [0011] - [0013], [0015] - [0017], [0024], [0055] - [0057], [0080], [0081]; examples 14, 17, 23 *	1-8, 10-14
X A	US 2016096163 A1 (HOUSE KEITH LEONARD [US] ET AL) 07 April 2016 (2016-04-07) * paragraphs [0004], [0005], [0021], [0029], [0030], [0038] - [0052], [0071] *	1-6, 8, 10-13 7, 14
X A	JP 2015134318 A (TOYO BOSEKI) 27 July 2015 (2015-07-27) * paragraphs [0012], [0013], [0016], [0030], [0032]; example 1 *	1-6, 8, 10-13 7, 14
X A	US 2018117522 A1 (GAUR VIVEKANAND [US]) 03 May 2018 (2018-05-03) * paragraphs [0009] - [0014], [0053] - [0055] *	1-6, 8 7, 10-13
X A	US 2015165422 A1 (SUNG SHIANG [US] ET AL) 18 June 2015 (2015-06-18) * paragraphs [0099], [0133], [0135] *	1, 2, 5-8, 10-14 3, 4
X	JP S49131986 A (TEIJIN LTD) 18 December 1974 (1974-12-18) * the whole document *	1-8, 10-14
X A	US 3925248 A (MORONI ROLF ET AL) 09 December 1975 (1975-12-09) * column 2, lines 18-31; examples 1,3 * * column 4, line 28 - column 6, line 14 *	1-8 10-14

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 05 October 2022	Examiner Howe, Patrick
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CATEGORY OF CITED DOCUMENTS

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|---|--|
| 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 |
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INCOMPLETE SEARCH

The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R. 62a, 63) has been carried out.

Claim(s) completely searchable: 1-8, 10-14

Claim(s) not searched: 9, 15

Reason for the limitation of the search:

[0001] Claims 1, 9 and 15 have been drafted as separate independent claims directed towards a product/device. According to Rule 43(2) EPC an application may contain more than one independent claim in a particular category only if the subject matter claimed falls within one or more of the exceptional situations set out in paragraphs (a), (b) or (c) of Rule 43(2) EPC. This is not the case however, because claims 1, 9 and 15 are merely directed to different products/devices. Thus the conciseness requirement of Art. 84 EPC is not met.

[0002] The applicant was asked to indicate on which of the three groups of products/devices the search is to be carried out (see Rule 62a EPC).

[0003] The applicant did not respond, i.e. the search is carried out only for the subject-matter of claims 1-8, 10-14 (subject to the requirement of unity of invention).

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 05 October 2022	Examiner Howe, Patrick
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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-8, 10-14(all partially)

subject-matter of claim 1-8, 10-14 insofar as it relates to a filter body comprising polymeric foam (and to a manganese oxide catalyst) and insofar as it relates to an adsorbent comprising silica gel or silicalite.

2. claims: 1-8, 10-14(all partially)

subject-matter of claim 1-8, 10-14 insofar as it relates to a filter body comprising polymeric foam (and to a manganese oxide catalyst) and insofar as it relates to an adsorbent comprising activated carbon (invention 2); or comprising faujasite, chabazite, clinoptilolite, mordenite, zeolite X, zeolite Y, ultrastable zeolite Y, ZSM zeolite, offretite, beta zeolite (invention 3); or comprising metal organic frameworks (invention 4); or comprising metal oxide (invention 5); or comprising polymers, resins (invention 6).

3. claims: 1-8, 10-14(all partially)

subject-matter of claim 1-8, 10-14 insofar as it relates to a filter body comprising polymeric fiber (and to a manganese oxide catalyst) and insofar as it relates to an adsorbent comprising silica gel or silicalite (invention 7); activated carbon (invention 8); or comprising faujasite, chabazite, clinoptilolite, mordenite, zeolite X, zeolite Y, ultrastable zeolite Y, ZSM zeolite, offretite, beta zeolite (invention 9); or comprising metal organic frameworks (invention 10); or comprising metal oxide (invention 11); or comprising polymers, resins (invention 12).

4. claims: 1-8, 10-14(all partially)

subject-matter of claim 1-8, 10-14 insofar as it relates to a filter body comprising nonwoven fabric (and to a manganese oxide catalyst) and insofar as it relates to an adsorbent comprising silica gel or silicalite (invention 13); activated carbon (invention 14); or comprising faujasite, chabazite, clinoptilolite, mordenite, zeolite X, zeolite Y, ultrastable zeolite Y, ZSM zeolite, offretite, beta zeolite (invention 15); or comprising metal organic frameworks (invention 16); or comprising metal oxide (invention 17); or comprising polymers, resins (invention 18).

5. claims: 1-8, 10-14(all partially)

claims 1-8, 10-14 (partially); subject-matter of claim 1-8, 10-14 insofar as it relates to a filter body comprising ceramic (and to a manganese oxide catalyst) and insofar as it relates to an adsorbent comprising silica gel or silicalite (invention 19); activated carbon (invention 20); or comprising faujasite, chabazite, clinoptilolite, mordenite, zeolite X, zeolite Y, ultrastable zeolite Y, ZSM zeolite, offretite, beta zeolite (invention 21); or comprising metal organic frameworks (invention 22); or comprising metal oxide (invention 23); or comprising polymers, resins (invention 24).

6. claims: 1-8, 10-14(all partially)

claims 1-8, 10-14 (partially); subject-matter of claim 1-8, 10-14 insofar as it relates to a filter body comprising pulp products (and to a manganese oxide catalyst) and insofar as it relates to an adsorbent comprising silica gel or silicalite (invention 25); activated carbon (invention 26); or comprising faujasite, chabazite, clinoptilolite, mordenite, zeolite X, zeolite Y, ultrastable zeolite Y, ZSM zeolite, offretite, beta zeolite (invention 27); or comprising metal organic frameworks (invention 28); or comprising metal oxide (invention 29); or comprising polymers, resins (invention 30).

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

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LACK OF UNITY OF INVENTION

None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims: 1-8, 10-14(all partially)

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

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