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## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number EP 14 82 6557

otogon	Citation of document with indication	n, where appropriate.	Relevant	CLASSIFICATION OF THE	
Category	of relevant passages	,	to claim	APPLICATION (IPC)	
X	WO 2010/049821 A2 (ENKH BRODT ALEXANDER [MN]) 6 May 2010 (2010-05-06) * paragraphs [0009], [ [0040]; claims 1,2; fig	0036] - paragraph	1-13	INV. E21B43/013 E21B43/20 E21B43/24 C10L3/06 F25J1/02	
X	US 1 157 993 A (MCELROY 26 October 1915 (1915-1 * paragraph [0002]; cla	0-26)	1-13	C10L1/32 C10L9/00 C10L9/04 C10L9/10	
A	SU 486 772 A1 (VORON TE 5 October 1975 (1975-10 * paragraph [0003]; fig 	-05)	1-13	C10L9/10 C22B1/00 E21C41/00 B03B9/00 B03D1/00 B03D3/00 B03D103/08 B01J19/00 B01J19/18	
				TECHNICAL FIELDS	
				B01J	
The sup	plementary search report has been t	pased on the last		C10G	
et of cla	aims valid and available at the start of Place of search	of the search. Date of completion of the search	l	Examiner	
The Hague		2 February 2017	Dei	Deurinck, Patricia	
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O : non	-written disclosure mediate document	& : member of the sa document			



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DC	OCUMENTS CONSIDE	RED TO BE RELEVANT		
Category	Citation of document with ind of relevant passa	dication, where appropriate, ges	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
				B01J4/00 C10G1/06 C10G1/08
				TECHNICAL FIELDS SEARCHED (IPC)
The supple	mentary search report has l s valid and available at the	been based on the last		
P	lace of search	Date of completion of the search		Examiner
	he Hague	2 February 2017		rinck, Patricia
X : particul Y : particul docume A : technol O : non-wri	EGORY OF CITED DOCUMENTS arly relevant if taken alone arly relevant if combined with anoth int of the same category ogical background itten disclosure idiate document	L : document cited for	ument, but publis the application r other reasons	shed on, or

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Application Number

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CLAIMS INCURRING FEES
The present European patent application comprised at the time of filing claims for which payment was due.
Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.
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:
see sheet B
All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.
As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
Only part 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 inventions in respect of which search fees have been paid, namely claims:
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: 1-13



1. claims: 1-13

# LACK OF UNITY OF INVENTION SHEET B

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:

**Application Number** 

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

EP 14 82 6557

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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-02-2017	
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 2010049821	A2	06-05-2010	CN 102203216 A EA 201170614 A1 US 2011203164 A1 WO 2010049821 A2 ZA 201102667 B	28-09-201 30-03-2012 25-08-2012 06-05-2010 28-12-2012
US 1157993	Α	26-10-1915	NONE	
SU 486772	A1	05-10-1975	NONE	

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82