



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 21 93 78 77

Classification of the application (IPC):
F25B 6/04, F25B 7/00, F25B 1/00

Technical fields searched (IPC):
F25B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
A	US 2013180278 A1 (YAMASHITA TETSUYA [JP] ET AL) 18 July 2013 (2013-07-18) * paragraphs [0027] - [0031]; figures 1,3 *	1-13
A	ZHILI SUN ET AL: "Comparative analysis of thermodynamic performance of CO2 cascade refrigeration system assisted with expander and mechanical subcooling" <i>INTERNATIONAL JOURNAL OF ENERGY RESEARCH</i> , WILEY, CHICHESTER, GB, 18 August 2019 (2019-08-18), vol. 43, no. 14, DOI: 10.1002/ER.4719, ISSN: 0363-907X, pages 7891-7907, XP071644630 * figure 6 *	1-13

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 12 April 2024	Examiner Ritter, Christoph
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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 12-04-2024.
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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 2013180278	A1	18-07-2013	CN	103221760 A	24-07-2013
			EP	2642220 A1	25-09-2013
			JP	WO2012066763 A1	12-05-2014
			US	2013180278 A1	18-07-2013
			WO	2012066763 A1	24-05-2012