



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 86 57 64

### Classification of the application (IPC):

C22C 38/00, C21D 8/02, C22C 38/14, C22C 38/58, C21D 6/00, C22C 38/02,  
C22C 38/04, C22C 38/06, C22C 38/12, C22C 38/16, C22C 38/42, C22C 38/44,  
C22C 38/46, C22C 38/48, C22C 38/50, C21D 9/46

### Technical fields searched (IPC):

C21D, C22C

| DOCUMENTS CONSIDERED TO BE RELEVANT |   |                   |
|-------------------------------------|---|-------------------|
| Category                            | Citation of document with indication, where appropriate, of relevant passages                             | Relevant to claim |
| E                                   | EP 3604584 A1 (JFE STEEL CORP [JP]) 05 February 2020 (2020-02-05)<br>* abstract; claims 1-7; tables 1-2 * | 1-7               |
| A                                   | JP 2012077331 A (JFE STEEL CORP) 19 April 2012 (2012-04-19)<br>* the whole document *                     | 1-7               |
| A                                   | JP 2013139630 A (JFE STEEL CORP) 18 July 2013 (2013-07-18)<br>* the whole document *                      | 1-7               |

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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|------------------------------|--|----------------------------------|
| Place of search<br>The Hague | Date of completion of the search<br>30 July 2021 | Examiner<br>Mikloweit, Alexander |
|------------------------------|--|----------------------------------|

### 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  
& : member of the same patent family, corresponding document

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  
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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 86 57 64

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 30-07-2021  
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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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|  |                  | JP 2013139630 A         | 18-07-2013       |