

Title (en)
DEHYDROGENATION DEVICE, SYSTEM FOR MANUFACTURING STEEL SHEET, AND METHOD FOR MANUFACTURING STEEL SHEET

Title (de)
DEHYDRIERUNGSVORRICHTUNG, SYSTEM ZUR HERSTELLUNG VON STAHLBLECH UND VERFAHREN ZUR HERSTELLUNG VON STAHLBLECH

Title (fr)
DISPOSITIF DE DÉSHYDROGÉNATION, SYSTÈME DE FABRICATION D'UNE TÔLE D'ACIER ET PROCÉDÉ DE FABRICATION DE TÔLE D'ACIER

Publication
EP 4357467 A1 20240424 (EN)

Application
EP 22841788 A 20220517

Priority
• JP 2021116762 A 20210714
• JP 2022020580 W 20220517

Abstract (en)
Provided are a steel sheet dehydrogenation apparatus, a steel sheet production system, and a steel sheet production method capable of producing a steel sheet excellent in hydrogen embrittlement resistance without changing the mechanical properties of the steel sheet. A dehydrogenation apparatus comprises: a housing configured to house a steel sheet coil obtained by coiling a steel strip; and a vibration application device configured to apply vibration to the steel sheet coil housed in the housing so that the steel sheet coil is caused to vibrate at a frequency of 100 Hz to 100,000 Hz and a maximum amplitude of 10 nm to 500 μm.

IPC 8 full level
C21D 3/06 (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/06** (2006.01); **C22C 38/58** (2006.01); **C22C 38/60** (2006.01); **C23C 2/00** (2006.01); **C23C 2/06** (2006.01); **C23C 2/40** (2006.01)

CPC (source: EP KR)
C21D 1/04 (2013.01 - EP); **C21D 1/26** (2013.01 - EP); **C21D 3/06** (2013.01 - EP KR); **C21D 8/0205** (2013.01 - EP); **C21D 8/0221** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP KR); **C21D 8/0236** (2013.01 - EP KR); **C21D 8/0257** (2013.01 - EP); **C21D 8/0273** (2013.01 - KR); **C21D 9/46** (2013.01 - EP); **C21D 9/663** (2013.01 - EP); **C21D 10/00** (2013.01 - KR); **C22C 38/001** (2013.01 - KR); **C22C 38/002** (2013.01 - EP); **C22C 38/005** (2013.01 - EP); **C22C 38/008** (2013.01 - EP); **C22C 38/02** (2013.01 - EP KR); **C22C 38/04** (2013.01 - EP KR); **C22C 38/06** (2013.01 - EP KR); **C22C 38/08** (2013.01 - EP); **C22C 38/12** (2013.01 - EP); **C22C 38/14** (2013.01 - EP); **C22C 38/16** (2013.01 - EP); **C22C 38/24** (2013.01 - EP); **C22C 38/26** (2013.01 - EP); **C22C 38/32** (2013.01 - EP); **C22C 38/38** (2013.01 - EP); **C22C 38/58** (2013.01 - KR); **C22C 38/60** (2013.01 - EP); **C23C 2/003** (2013.01 - EP); **C23C 2/06** (2013.01 - KR); **C23C 2/26** (2013.01 - EP); **C23C 2/40** (2013.01 - EP KR)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4357467 A1 20240424; CN 117561341 A 20240213; JP 7384296 B2 20231121; JP WO2023286441 A1 20230119; KR 20240015105 A 20240202; MX 2024000716 A 20240208; WO 2023286441 A1 20230119

DOCDB simple family (application)
EP 22841788 A 20220517; CN 202280045181 A 20220517; JP 2022020580 W 20220517; JP 2022555186 A 20220517; KR 20237045212 A 20220517; MX 2024000716 A 20220517