

Title (en)

METHODS AND SYSTEMS FOR WELDING COPPER AND OTHER METALS USING BLUE LASERS

Title (de)

VERFAHREN UND SYSTEME ZUM SCHWEISSEN VON KUPFER UND ANDEREN METALLEN UNTER VERWENDUNG VON BLAUEN LASERN

Title (fr)

PROCÉDÉS ET SYSTÈMES DE SOUDAGE DE CUIVRE ET D'AUTRES MÉTAUX À L'AIDE DE LASERS BLEUS

Publication

EP 3902648 A4 20221116 (EN)

Application

EP 19907042 A 20191230

Priority

- US 201862786511 P 20181230
- US 2019068996 W 20191230

Abstract (en)

[origin: WO2020142458A1] A visible light laser system and operation for welding materials together. A blue laser system that forms essentially perfect welds for copper based materials. A blue laser system and operation for welding conductive elements, and in particular thin conductive elements, together for use in energy storage devices, such as battery packs.

IPC 8 full level

B23K 26/00 (2014.01); **B23K 26/062** (2014.01); **B23K 26/073** (2006.01)

CPC (source: EP KR)

B23K 26/14 (2013.01 - EP KR); **B23K 26/244** (2015.10 - EP KR); **B23K 2103/12** (2018.07 - EP KR); **Y02E 60/10** (2013.01 - EP)

Citation (search report)

- [I] WO 2018144524 A1 20180809 - NUBURU INC [US]
- [A] VERHAEGHE GEERT ET AL: "The effect of spot size and laser beam quality on welding performance when using high-power continuous wave solid-state lasers", INTERNATIONAL CONGRESS ON APPLICATIONS OF LASERS & ELECTRO-OPTICS, 1 January 2005 (2005-01-01), pages 507, XP055968939, ISBN: 978-0-912035-82-6, Retrieved from the Internet <URL:http://dx.doi.org/10.2351/1.5060500> DOI: 10.2351/1.5060500
- See references of WO 2020142458A1

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

DOCDB simple family (publication)

WO 2020142458 A1 20200709; CA 3125591 A1 20200709; CN 113543921 A 20211022; EP 3902648 A1 20211103; EP 3902648 A4 20221116; JP 2022518132 A 20220314; KR 20210106566 A 20210830

DOCDB simple family (application)

US 2019068996 W 20191230; CA 3125591 A 20191230; CN 201980093318 A 20191230; EP 19907042 A 20191230; JP 2021538707 A 20191230; KR 20217024010 A 20191230