

Title (en)  
IMPROVED 7XXX ALUMINUM ALLOYS

Title (de)  
VERBESSERTE 7XXX-ALUMINIUMLEGIERUNGEN

Title (fr)  
ALLIAGES D'ALUMINIUM 7XXX AMÉLIORÉS

Publication  
**EP 3880857 A4 20220803 (EN)**

Application  
**EP 19885961 A 20191113**

Priority  
• US 201862767441 P 20181114  
• US 2019061305 W 20191113

Abstract (en)  
[origin: WO2020102441A2] New 7xxx aluminum alloys are disclosed. The new 7xxx aluminum alloys generally include from 0.05 to 1.0 wt. % Ag. In one approach, a new 7xxx aluminum alloy includes from 0.05 to 1.0 wt. % Ag, from 5.5 to 9.0 wt. % Zn, from 1.2 to 2.6 wt. % Cu, from 1.3 to 2.5 wt. % Mg, up to 0.60 wt. % Mn, up to 1.0 wt. % of at least one grain structure control material, wherein the at least one grain structure control material is selected from the group consisting of Zr, Cr, V, Hf, other rare earth elements, and combinations thereof, up to 0.30 wt. % Fe, up to 0.30 wt. % Si, up to 0.15 wt. % Ti, not greater than 0.08 wt. % Sc, and not greater than 0.05 wt. % Li, the balance being aluminum, optional incidental elements and impurities.

IPC 8 full level  
**C22C 21/10** (2006.01)

CPC (source: EP US)  
**C22C 21/10** (2013.01 - EP US); **C22F 1/053** (2013.01 - US)

Citation (search report)  
• [X] CN 101818290 A 20100901 - UNIV CENTRAL SOUTH  
• [X] JP 2008045157 A 20080228 - HORIKAWA INC, et al  
• [X] JP H0413833 A 19920117 - FURUKAWA ALUMINIUM  
• [E] WO 2020007437 A1 20200109 - FUCHS KG OTTO [DE]  
• [X] LEE C.W ET AL: "The effect of silver addition on 7055 Al alloy", MATERIALS AND DESIGN, vol. 18, no. 4-6, 31 December 1997 (1997-12-31), GB, pages 327 - 332, XP055934893, ISSN: 0261-3069, DOI: 10.1016/S0261-3069(97)00086-1  
• [X] J.T. STALEY ET AL.: "Heat treating Characteristics of High Strength Al-Zn-Mg-Cu Alloys With and Without Silver Additions", METALLURGICAL TRANSACTIONS, 1 January 1972 (1972-01-01), pages 191 - 199, XP055306959, Retrieved from the Internet <URL:https://link.springer.com/article/10.1007/BF02680598> [retrieved on 20160930]  
• See references of WO 2020102441A2

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 2020102441 A2 20200522; WO 2020102441 A3 20200820**; BR 112021008744 A2 20210810; CA 3118152 A1 20200522; CN 113015816 A 20210622; EP 3880857 A2 20210922; EP 3880857 A4 20220803; US 2021340656 A1 20211104

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**US 2019061305 W 20191113**; BR 112021008744 A 20191113; CA 3118152 A 20191113; CN 201980074250 A 20191113; EP 19885961 A 20191113; US 202117308794 A 20210505