

Title (en)

USE OF CHLOROPLASTS FOR OXYGEN PRODUCTION IN CELL CULTURES

Title (de)

VERWENDUNG VON CHLOROPLASTEN ZUR SAUERSTOFFHERSTELLUNG IN ZELLKULTUREN

Title (fr)

UTILISATION DE CHLOROPLASTES POUR LA PRODUCTION D'OXYGÈNE DANS DES CULTURES CELLULAIRES

Publication

EP 3853346 A4 20220601 (EN)

Application

EP 19861733 A 20190920

Priority

- US 201862734314 P 20180921
- US 2019052231 W 20190920

Abstract (en)

[origin: WO2020061500A1] Methods and systems for increasing oxygen for use by mammalian cells are provided. In some embodiments, a method for increasing oxygen concentration for mammalian cells coculturing chloroplasts in at least one well plate with mammalian cells in a media and increasing oxygen production by exposing the chloroplasts to light.

IPC 8 full level

C12N 5/07 (2010.01); **C12N 5/0775** (2010.01); **C12N 5/0789** (2010.01); **C12N 5/0797** (2010.01)

CPC (source: EP)

C12N 5/0663 (2013.01); **C12N 2500/02** (2013.01); **C12N 2501/71** (2013.01); **C12N 2529/10** (2013.01)

Citation (search report)

- [A] US 2013089521 A1 20130411 - EAGANA-ERAZO JOSE-TOMAS [DE], et al
- [XI] IAN MICHAEL DIAMOND: "Worcester Polytechnic Institute Digital WPI Can Plant Chloroplasts Function in Mammalian Cells?", 1 January 2018 (2018-01-01), XP055694995, Retrieved from the Internet <URL:<https://digitalcommons.wpi.edu/cgi/viewcontent.cgi?article=3187&context=mqp-all>>
- [XI] NASS ET AL.: "Uptake of isolated chloroplasts by mammalian cells", SCIENCE, vol. 168, 12 September 1969 (1969-09-12), Weinheim, pages 1128 - 1131, XP055781994, Retrieved from the Internet <URL:<https://www.science.org/doi/10.1126/science.165.3898.1128>
- See references of WO 2020061500A1

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 2020061500 A1 20200326; CA 3110233 A1 20200326; EP 3853346 A1 20210728; EP 3853346 A4 20220601

DOCDB simple family (application)

US 2019052231 W 20190920; CA 3110233 A 20190920; EP 19861733 A 20190920