

Title (en)

IMPROVED WIRELESS ENERGY TRANSFER USING ALIGNMENT OF ELECTROMAGNETIC WAVES

Title (de)

VERBESSERTE DRAHTLOSE ENERGIEÜBERTRAGUNG MITTELS AUSRICHTUNG VON ELEKTROMAGNETISCHEN WELLEN

Title (fr)

MEILLEUR TRANSFERT D'ÉNERGIE SANS FIL À L'AIDE D'UN ALIGNEMENT D'ONDES ÉLECTROMAGNÉTIQUES

Publication

EP 3414817 A4 20200115 (EN)

Application

EP 17749930 A 20170203

Priority

- US 201662292938 P 20160209
- US 201662292933 P 20160209
- US 201662292926 P 20160209
- IB 2017000162 W 20170203

Abstract (en)

[origin: WO2017137838A1] A method for improved wireless energy transfer includes steering a first energy beam, having a fundamental frequency, towards an energizable device. The first energy beam is formed by a plurality of polarizers of a first power access point (PAP). A first polarity of the first energy beam is aligned at the energizable device to a second polarity of a second energy beam formed by a second PAP, physically separate from, and having a wireless connection to, the first PAP, by combining at each of the polarizers of the first PAP a respective first polarized signal with a respective second polarized signal. The respective second polarized signal is formed by rotating the respective first polarized signal. The second PAP receives a PAP signal via the wireless connection and locally generates the fundamental frequency from the PAP signal.

IPC 8 full level

H02J 50/40 (2016.01); **H02J 50/20** (2016.01); **H02J 50/80** (2016.01); **H02J 50/90** (2016.01); **H02J 7/02** (2016.01)

CPC (source: EP KR US)

H01Q 3/36 (2013.01 - KR); **H01Q 9/0407** (2013.01 - KR); **H02J 50/20** (2016.02 - EP KR); **H02J 50/40** (2016.02 - EP KR US);
H02J 50/80 (2016.02 - KR); **H02J 50/90** (2016.02 - EP KR US); **H04B 5/79** (2024.01 - KR); **H02J 50/80** (2016.02 - EP US)

Citation (search report)

- [XY] US 2010315045 A1 20101216 - ZEINE HATEM [US]
- [Y] US 2005110641 A1 20050526 - MENDOLIA GREG [US], et al
- See also references of WO 2017137838A1

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 2017137838 A1 20170817; CN 108702030 A 20181023; EP 3414817 A1 20181219; EP 3414817 A4 20200115; JP 2019506833 A 20190307;
KR 20180113563 A 20181016

DOCDB simple family (application)

IB 2017000162 W 20170203; CN 201780010460 A 20170203; EP 17749930 A 20170203; JP 2018541603 A 20170203;
KR 20187026090 A 20170203