

Title (en)
FLEXIBLE TRANSPARENT CONDUCTIVE ELECTRODE

Title (de)
FLEXIBLE TRANSPARENTE LEITFÄHIGE ELEKTRODE

Title (fr)
ÉLECTRODE CONDUCTRICE TRANSPARENTE SOUPLE

Publication
EP 3547332 A4 20200916 (EN)

Application
EP 18886729 A 20180921

Priority
• CN 201711280783 A 20171207
• CN 2018107054 W 20180921

Abstract (en)
[origin: EP3547332A1] A flexible transparent conductive electrode. The flexible transparent conductive electrode consists of a transparent flexible substrate and a silver nanowire coating coated on a surface of the transparent flexible substrate. A preparation therefor comprises steps of : adding a silver nanowire aqueous dispersion, a waterborne acrylic resin, triethylenetetramine, 1-2 parts of methyl p-tolyl sulfone, 0.1-0.3 parts of hydrogenated castor oil, and a composite solvent to a vacuum mixer for vacuum defoaming and uniform mixing to obtain a mixed liquid, the silver nanowire aqueous dispersion having a concentration of 2-10 mg/mL, and the composite solvent being prepared by mixing an alcohol solvent and a ketone solvent; and drying the wet film in a vacuum oven at 150°C for 3-10 min, and taking out the wet film after moisture in the wet film is completely volatilized, to give the flexible transparent conductive electrode. The electrode reduces electrical resistivity, and further avoids accumulation of silver nanowires, ensures uniformity of electrical conductivity, and improves light transmittance.

IPC 8 full level
H01B 1/22 (2006.01)

CPC (source: CN EP)
H01B 1/22 (2013.01 - CN EP); **H01B 5/14** (2013.01 - CN EP); **H01B 13/00** (2013.01 - CN EP); **H01B 13/30** (2013.01 - CN EP)

Citation (search report)
• [A] US 2015166798 A1 20150618 - IWATA RYOSUKE [JP], et al
• [A] US 2013251983 A1 20130926 - KONDO YASUHIRO [JP], et al
• [A] US 2013126796 A1 20130523 - CHUNG KWANG CHOON [KR], et al
• See references of WO 2019109711A1

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

DOCDB simple family (publication)
EP 3547332 A1 20191002; EP 3547332 A4 20200916; EP 3547332 B1 20220316; CN 108417294 A 20180817; WO 2019109711 A1 20190613

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