

Title (en)  
ELECTROCHEMICAL DEVICE WITH ELECTROCONTROLLABLE OPTICAL TRANSMISSION AND/OR ENERGY-RELATED PROPERTIES

Title (de)  
ELEKTROCHEMISCHE VORRICHTUNG MIT ELEKTROSTEUERBAREN OPTISCHEN ÜBERTRAGUNGS- UND/ODER ENERGIEBEZOGENEN EIGENSCHAFTEN

Title (fr)  
DISPOSITIF ELECTROCHIMIQUE A PROPRIETES DE TRANSMISSION OPTIQUE ET/OU ENERGETIQUE ELECTROCOMMANDABLES

Publication  
**EP 2649488 A1 20131016 (FR)**

Application  
**EP 11805097 A 20111205**

Priority  
• FR 1060154 A 20101206  
• FR 2011052871 W 20111205

Abstract (en)  
[origin: WO2012076800A1] The invention relates to an electrochemical device (1) with electrocontrollable optical transmission and/or energy-related properties, of the type comprising two electrode claddings (4, 6) and, between them, an electrochemically active layer (6) made from a mineral material able to pass in a reversible manner between two states with different optical transmission and/or energy-related properties by insertion and deinsertion of ions. An electrolyte (8) is present between the electrochemically active layer and the second electrode cladding. The material of the electrochemically active layer is a material for which the insertion and deinsertion of ions during passages between the two states correspond to a variation of the plasma wavelength  $\lambda$  of the material and in that the material has, at the plasma wavelength  $\lambda$ , a bandwidth at mid-height  $\Delta\lambda$  of the absorption spectrum that is less than or equal to 1 micron in the two states.

IPC 8 full level  
**G02F 1/1524** (2019.01)

CPC (source: EP US)  
**G02F 1/1524** (2018.12 - EP US); **G02F 1/155** (2013.01 - US); **G02F 2203/11** (2013.01 - EP US)

Citation (search report)  
See references of WO 2012076800A1

Citation (examination)  
ZHENG-WEN FU ET AL: "The Electrochemical Reaction of Zinc Oxide Thin Films with Lithium", JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol. 150, no. 6, 1 January 2003 (2003-01-01), pages A714, XP055213978, ISSN: 0013-4651, DOI: 10.1149/1.1570410

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DOCDB simple family (publication)  
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**FR 1060154 A 20101206**; CN 201180066921 A 20111205; EP 11805097 A 20111205; FR 2011052871 W 20111205; JP 2013542587 A 20111205; US 201113992127 A 20111205