Title (en)

MICROBATTERY WITH AT LEAST ONE ELECTRODE AND ELECTROLYTE EACH COMPRISING A COMMON GROUPING XY sb 1 /sb ,Y sb 2 / sb ,Y sb 3 / sb ,Y sb 4 /sb AND METHOD FOR THE PRODUCTION OF SAID MICRO BATTERY

Title (de)

MIKROBATTERIE MIT MINDESTENS EINER ELEKTRODE UND ELEKTROLYT JEWEILS MIT EINER GEMEINSAMEN GRUPPIERUNG VON XY SB 1 /SB ,Y SB 2 /SB ,Y SB 3 / SB ,Y SB 4 /SB UND VERFAHREN ZUR HERSTELLUNG DER MIKROBATTERIE

Title (fr)

MICROBATTERIE DONT AU MOINS UNE ELECTRODE ET L'ELECTROLYTE COMPORTENT CHACUN LE GROUPEMENT COMMUN XY sb 1 / sb ,Y sb 2 /sb ,Y sb 3 /sb ,Y sb 4 /sb ET PROCEDE DE FABRICATION D&rs quo;UNE TELLE MICROBATTERIE

Publication

EP 1673826 A2 20060628 (FR)

Application

EP 04817211 A 20041011

Priority

- FR 2004002571 W 20041011
- FR 0311998 A 20031014

Abstract (en)

[origin: FR2860925A1] Microbattery comprises a solid electrolyte (4) between a first electrode (5) and a second electrode (3), each in the form of a thin layer, where the first electrode and the electrolyte comprise a material with a tetrahedral structure in which a central atom of phosphorus, boron, silicon, sulfur, molybdenum, vanadium or germanium is bonded to four atoms of sulfur, oxygen, fluorine and/or chlorine. Microbattery comprises a solid electrolyte (4) between a first electrode (5) and a second electrode (3), each in the form of a thin layer, where the first electrode and the electrolyte comprise a material with a tetrahedral XY 1Y 2Y 3Y 4structure. X : P, B, Si, S, Mo, V or Ge; Y 1-Y 4S, O, F or Cl. An independent claim is also included for producing a microbattery as above by successively depositing thin layers on a substrate (Ia) using a sputtering target comprising a compound of type A x2T' y2[XY 1Y 2Y 3Y 4] z2B' w2and an element E' to form the second electrode, a sputtering target comprising the group [XY 1Y 2Y 3Y 4] to form the electrolyte and a sputtering target comprising a compound of type A x1T y1[XY 1Y 2Y 3Y 4] z1B w1and an element E to form the first electrode. A : alkali metal; T, T' : Ti, V, Cr, Co, Ni, Mn, Fe, Cu, Nb, Mo and/or W; B, B' : S, O, F or Cl; x1, w1, x2, w2 : 0 or more; y1, z1, y2, z2 : numbers greater than 0; E, E' : metals or carbon.

IPC 1-7

H01M 4/58

IPC 8 full level

H01M 4/131 (2010.01); **H01M 4/134** (2010.01); **H01M 4/48** (2010.01); **H01M 4/485** (2010.01); **H01M 4/50** (2010.01); **H01M 4/505** (2010.01); **H01M 4/52** (2010.01); **H01M 4/525** (2010.01); **H01M 10/052** (2010.01); **H01M 10/0565** (2010.01); **H01M 10/36** (2010.01); H01M 4/66 (2006.01)

CPC (source: EP US)

H01M 4/131 (2013.01 - EP US); **H01M 4/134** (2013.01 - EP US); **H01M 4/485** (2013.01 - EP US); **H01M 4/505** (2013.01 - EP US); **H01M 4/525** (2013.01 - EP US); **H01M 10/052** (2013.01 - EP US); **H01M 10/0565** (2013.01 - EP US); H01M 4/661 (2013.01 - EP US); Y02E 60/10 (2013.01 - EP); Y02P 70/50 (2015.11 - EP); Y10T 29/49115 (2015.01 - EP US)

Citation (search report)

See references of WO 2005038965A2

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DOCDB simple family (publication)

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DOCDB simple family (application)

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