

Title (en)

PEROVSKITE MATERIAL, PREPARATION METHOD AND USE IN CATALYTIC MEMBRANE REACTOR

Title (de)

PEROWSKITMATERIAL, HERSTELLUNGSVERFAHREN UND VERWENDUNG IN EINEM KATALYTISCHEN MEMBRANREAKTOR

Title (fr)

MATERIAU PEROVSKITE, PROCEDE DE PREPARATION ET UTILISATION DANS UN REACTEUR CATALYTIQUE MEMBRANAIRE

Publication

EP 1646595 A2 20060419 (FR)

Application

EP 04767630 A 20040708

Priority

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- FR 0350324 A 20030711

Abstract (en)

[origin: FR2857355A1] New mixed electronic and O²⁻ anion conductive material of a crystalline perovskite structure in which the electric neutrality of the crystalline lattice is conserved. The material conforms to a compound of formula - A (a)>(1-x-u)A' (a-1)>xA'' (a'')>uB (b)>(1-s-y-v)B (b+1)>sB' (b+beta)>yB'' (b'')>vO^{3-delta}; a, a-1, a'', b, b+1, b+beta and b'' : whole numbers representing valencies of A, A', A'', B, B' and B''; a, a'', b, b'', beta, x, y, s, u, v and delta : such that the electrical neutrality of the crystal lattice is conserved; a : greater than 0; a'', b and b'' : greater than 0; beta : -2 to 2; a + b : 6; s : greater than 0 less than x; x and u : are greater than 0 less than 0.5 ; (x + u) 0.5; y and v : 0 - 0.9; (y + v + s) : 0 - 0.9; [u(a''-a) + v(b'' - b)-x+s+beta y+2delta] : 0; and delta : less than delta is less than delta maxwith; delta min[u(a - a'') + v(b - b''-beta y) / 2; and delta max[u(a - a'') + v(b - b''-beta y + x) / 2; A : Sc, Y or a lanthanide, actinide or alkaline earth; A' (differs from A) : Sc, Y, a lanthanide, actinide or alkaline earth; A'' : Al, Ga or Ti; B : a transition metal, able to exist in several possible valencies; B' : a transition metal, Al, In, Ga, Ge, Sb, Bi, Sn or Pb; B'' : a transition metal, alkaline earth, Al, In, Ga, Ge, Sb, Bi, Sn or Pb (B, B' and B'' differ from each other); Independent claims are also included for the preparation of these compounds and their uses.

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C04B 35/40

IPC 8 full level

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C-Set (source: EP US)

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