

Title (en)

LAYERED COMPOSITE WITH AN INSULATION LAYER

Title (de)

SCHICHTVERBUND MIT EINER ISOLATIONSSCHICHT

Title (fr)

COMPOSITE STRATIFIE COMPRENANT UNE COUCHE D'ISOLATION

Publication

EP 1313681 A2 20030528 (DE)

Application

EP 01969630 A 20010822

Priority

- DE 10041554 A 20000824
- EP 0109702 W 20010822

Abstract (en)

[origin: WO0216919A2] The invention relates to a layered composite with an insulation layer for the electrical insulation of a first layer from a second layer. The first layer is embodied as a first oxygen ion conducting solid electrolyte layer or a first electrically conducting layer and the second layer is embodied as a second oxygen ion conducting solid electrolyte layer or a second electrically conducting layer. The insulation layer is formed on a support from a ceramic powder and/or a glass powder, by means of a paste or a suspension, whereby the first layer at least partly, or the second layer at least partly serves as support and the sintered insulation layer has a layer thickness of $\leq 10 \mu\text{m}$. The aim of the invention is to prepare a further layered composite with an insulation layer, in particular for an exhaust sensor. Said aim is achieved for the layered composite, whereby the powder used for the insulation layer is a nanopowder with a specific surface area as determined by BET of $> 50\text{m}^2/\text{g}$ and that the maximum powder particle size for the nanopowder is 100nm.

IPC 1-7

C04B 35/626

IPC 8 full level

G01N 27/409 (2006.01); **B32B 7/02** (2006.01); **G01N 27/04** (2006.01); **G01N 27/407** (2006.01)

CPC (source: EP US)

B82Y 30/00 (2013.01 - EP US); **G01N 27/4071** (2013.01 - EP US)

Citation (search report)

See references of WO 0216919A2

Designated contracting state (EPC)

AT BE CH DE FR GB LI

DOCDB simple family (publication)

WO 0216919 A2 20020228; **WO 0216919 A3 20020808**; DE 10041554 A1 20020321; DE 10041554 C2 20030227; EP 1313681 A2 20030528; JP 2004507380 A 20040311; US 2002175076 A1 20021128

DOCDB simple family (application)

EP 0109702 W 20010822; DE 10041554 A 20000824; EP 01969630 A 20010822; JP 2002521964 A 20010822; US 11135802 A 20020424