

Title (en)
CERAMIC MATERIAL FOR CAPACITOR

Title (de)
KERAMIKMATERIAL FÜR KONDENSATOR

Title (fr)
MATÉRIAU CÉRAMIQUE POUR CONDENSATEUR

Publication
EP 4182286 A1 20230524 (DE)

Application
EP 21734144 A 20210622

Priority
• DE 102020118859 A 20200716
• EP 2021067000 W 20210622

Abstract (en)
[origin: WO2022012880A1] The present invention relates to a ceramic material for a capacitor in multi-layer technology. The ceramic material has a composition according to the following general formula: $\text{Pb}(\text{y}-1,5\text{a}-0,5\text{b}+\text{c}+0,5\text{d}-0,5\text{e}-\text{f})\text{CaaAb}(\text{Zr}1-\text{xTix})(1-\text{c}-\text{d}-\text{e}-\text{f})\text{EcFedNbeWfO}3$, where A is one or more from the group Na, K and Ag; E is one or more from the group Cu, Ni, Hf, Si and Mn; and $0 < \text{a} < 0.14$, $0.05 \leq \text{x} \leq 0.3$, $0 \leq \text{b} \leq 0.12$, $0 < \text{c} \leq 0.12$, $0 \leq \text{d} \leq 0.12$, $0 \leq \text{e} \leq 0.12$, $0 \leq \text{f} \leq 0.12$, $0.9 \leq \text{y} \leq 1.5$ and $0.001 < \text{b}+\text{c}+\text{d}+\text{e}+\text{f}$. The invention also relates to a capacitor comprising the described ceramic material.

IPC 8 full level
C04B 35/493 (2006.01); **H01G 4/12** (2006.01); **H01G 4/30** (2006.01)

CPC (source: EP US)
C04B 35/493 (2013.01 - EP); **C04B 35/495** (2013.01 - US); **C04B 41/0072** (2013.01 - US); **H01G 4/01** (2013.01 - US); **H01G 4/1218** (2013.01 - US); **H01G 4/1245** (2013.01 - EP); **H01G 4/252** (2013.01 - US); **H01G 4/30** (2013.01 - EP US); **H01G 4/38** (2013.01 - US); **C04B 2235/3201** (2013.01 - EP); **C04B 2235/3208** (2013.01 - EP); **C04B 2235/3227** (2013.01 - EP); **C04B 2235/3244** (2013.01 - EP); **C04B 2235/3251** (2013.01 - EP); **C04B 2235/3258** (2013.01 - EP); **C04B 2235/326** (2013.01 - US); **C04B 2235/3262** (2013.01 - EP); **C04B 2235/3279** (2013.01 - EP); **C04B 2235/3281** (2013.01 - EP); **C04B 2235/3291** (2013.01 - EP); **C04B 2235/3418** (2013.01 - EP); **C04B 2235/656** (2013.01 - EP); **C04B 2235/768** (2013.01 - EP); **C04B 2235/79** (2013.01 - EP); **C04B 2235/96** (2013.01 - US); **H01G 4/1263** (2013.01 - EP)

Citation (search report)
See references of WO 2022012880A1

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 102020118859 A1 20220120; **DE 102020118859 B4 20241002**; CN 115916726 A 20230404; EP 4182286 A1 20230524; JP 2023533590 A 20230803; US 2023268126 A1 20230824; WO 2022012880 A1 20220120

DOCDB simple family (application)
DE 102020118859 A 20200716; CN 202180049863 A 20210622; EP 2021067000 W 20210622; EP 21734144 A 20210622; JP 2023502591 A 20210622; US 202118005376 A 20210622