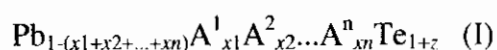

Doped lead tellurides for thermoelectric applications

5

Abstract

10 A p- or n-conductive semiconductor material comprises a compound of the general formula (I)



where:

15 in each case independently

n is the number of chemical elements different from Pb and Te

$$1 \text{ ppm} \leq x_1 \dots x_n \leq 0.05$$

$$-0.05 \leq z \leq 0.05$$

20 and

$$n \geq 2$$

25 $\text{A}^1 \dots \text{A}^n$ are different from one another and are selected from the group of the elements Li, Na, K, Rb, Cs, Be, Mg, Ca, Sr, Ba, Al, Ga, In, Tl, Si, Ge, Sn, As, Sb, Bi, S, Se, Br, I, Sc, Y, La, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Re, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Hg, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu

or $n=1$

A^1 is selected from Ti, Zr, Ag, Hf, Cu, Gr, Nb, Ta.