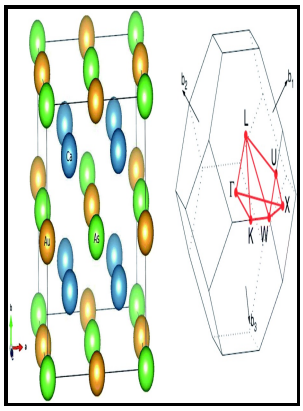
Thermoelectric properties of Si-based two dimensional structures

typescript - Recent Progress of Two



Description: -
-Thermoelectric properties of Si-based two dimensional structures
-Thermoelectric properties of Si-based two dimensional structures
Notes: Thesis (Ph.D.) - University of Warwick, 2000.
This edition was published in 2000

Tags: #Bulk #and #Monolayer #ZrS3 #as #Promising #Anisotropic #Thermoelectric #Materials: #A #Comparative #Study

Thermoelectric and phonon transport properties of two

Thermoelectric cooling and power generation.

Phys. Rev. B 53, 6605 (1996)

Its structure can be derived from a three-dimensional distortion of a rock-salt structure. The carrier mobility of SnSe is in a good agreement with ref. Phys Stat Sol b 1975, 71: 105—111.

Thermoelectric properties of two

Finally, thermoelectric compounds combined with photodetection devices are discussed. J Phys Chem C 2008, 112: 11314—11318.

Thermoelectric properties of two

In this paper, the present work is performed on the biaxial tensile strain effect for the thermoelectric performance of InSe monolayer by first-principles calculations, including electronic and phonon transport properties. Under a tensile strain, the lowest-energy conduction band is sensitive to strain and shifts downwards, while valence band almost remain constant, giving rise to the reduction of the bandgap.

Phys. Rev. B 102, 075444 (2020)

Reproduced with permission from Ref. Recently, two-dimensional 2D group-III nitride semiconductors such as h-BN, h-AlN, h-GaN, and h-InN have attracted attention because of their exceptional electronic, optical, and thermoelectric properties.

Enhanced thermoelectric properties of two

Therefore, we use the average value of x and y directions to evaluate the thermoelectric performance later. Angew Chem Int Ed 2006, 45: 4608—4612. The n-type ZT is plotted with a solid line and p-type ZT with a broken line.

Phys. Rev. B 102, 075444 (2020)

Recently, holey graphene HG was synthesized successfully at atomic precision with regard to hole size and shape, which indicates that HG has interesting physical and chemical properties for energy and environmental applications. With the increase of tensile strain, the quadratic nature of the ZA mode changes into almost a straight line in the low-energy region. The ZT value of p-type Ti 2 MoC 2 F 2 is found to reach a high value of 3.

Phys. Rev. B 102, 075444 (2020)

In 2018 he finished his Diploma thesis at the IFW-Dresden.

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