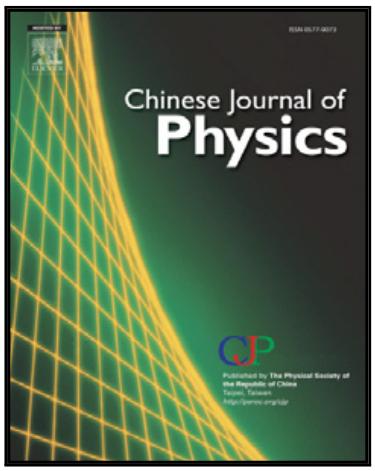

Equation of State of ^{20}Ne Gas in the Temperature-Range 27-36 K

A.N. Akour , A.S. Sandouqa , B.R. Joudeh , H.B. Ghassib

PII: S0577-9073(17)30185-5
DOI: 10.1016/j.cjph.2017.10.017
Reference: CJPH 375

To appear in: *Chinese Journal of Physics*

Received date: 19 March 2017
Revised date: 26 September 2017
Accepted date: 25 October 2017

Please cite this article as: A.N. Akour , A.S. Sandouqa , B.R. Joudeh , H.B. Ghassib , Equation of State of ^{20}Ne Gas in the Temperature-Range 27-36 K, *Chinese Journal of Physics* (2017), doi: 10.1016/j.cjph.2017.10.017

Highlights

- The quantum second virial coefficient for ^{20}Ne is calculated from first principles.
- The compressibility and the pressure-volume-temperature behavior are investigated.
- Other thermodynamic properties are computed for a number density of 1×10^{27} atoms/m^3.