PENJABARAN PERSAMAAN KEADAAN GAS IDEAL DAN GAS REAL DENGAN MENGGUNAKAN KONSEP MEKANIKA KUANTUM

ABSTRAK

Telah dilakukan penjabaran persamaan keadaan gas ideal dan gas real dengan menggunakan konsep mekanika kuantum. Persamaan keadaan gas ideal dapat diperoleh dengan menganggap potensial gas berbentuk potensial osilator harmonik, sedangkan persamaan keadaan gas real dapat diperoleh dengan menggunakan potensial osilator harmonik terganggu.

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DERIVATION OF THE STATE EQUATIONS OF IDEAL AND REAL GASES USING QUANTUM MECHANICAL CONCEPTS

ABSTRACT

The equations of state for both ideal and real gases have been performed using quantum mechanical concepts. The equation of state for an ideal gas can be obtained by assuming that the gas potential has an oscillator harmonic potential, meanwhile the equation of state for a real gas can be obtained using the perturbed oscillator harmonic potential.