

223 M1320 (223 D1320)

高等物理化學(專論)二 (3 學分)

(Discussion in)Advanced Physical Chemistry (II) (3)

中文

英文

核心教材

本徵能量薛丁格方程、單粒子多維井、諧振子、狄拉克符號 (期望值、測不準原理、矩陣表示)、諧振子、分子結構、角動量 (克萊布斯-戈登係數、轉動矩陣)、變分法、定態微擾理論

選擇性教材

密度算符及矩陣、對稱 (宇稱、逆時)、張量代數 (維格-納埃卡特定理)、固體能帶理論、化學鍵、頻域光譜

Core materials

Time-independent Schrödinger equation, particle in a box/well, rigid rotors, Dirac formalism (expectation values, uncertainty principle, matrix representation), harmonic oscillator, molecular structures, angular momentum (Clebsch-Gordan coefficients, rotation matrices), variational method, time-independent Perturbation theory

Optional materials

Density operator and matrix, symmetries (parity and time reversal), tensor algebra (Wigner-Eckart theorem), energy band theory of solids, chemical bondings, frequency domain spectroscopy