

1 Exercise 1 - Bohr Model

a. Radii

Solution: d

b. Energies

Solution: d

2 Exercise 2 - Hydrogen Atom

a. Solve Schrödinger Equation

Solution: d

b. Quantum numbers

Solution: d

c. Degeneracies

Solution: d

3 Exercise 3 - Real Spherical Harmonics

a. Sketchs

Solution: d

4 Exercise 4 - Crystal Field Splitting

a. Atom in Octahedron

Solution: d