

LIST OF TABLES

- 2.1 Coefficients for quadrupole and pairing operators for ^{20}Ne .
- 2.2 First and second order corrections to the ground state binding energy of ^{20}Ne .
- 4.1 Ground state proton and neutron occupancies for s-d shell nuclei.
- 4.2 Centroids and widths for particle removal (-) and addition (+) for s-d shell nuclei.
- 4.3 Occupancy dependent single particle energies (-E_j) at ground state (s-d shell).
- 4.4 Coulomb corrected (-E_j) for proton orbits (s-d shell).
- 4.5 Calculated proton and neutron effective single particle energies (-E_j) for f-p shell nuclei.
- 4.6 Coulomb corrected (-E_j) for proton orbits (f-p shell).
- 4.7 Experimental values for proton energy positions.
- 4.8 $1f_{7/2}$ - $2p_{3/2}$ energy spacing for proton and neutrons.
- 4.9 Ground state proton and neutron occupancies for upper f-p shell nuclei.
- 4.10 Centroids and widths for particle removal and addition strengths for f-p-g shell.
- 4.11 Experimental centroids for single nucleon transfer reactions on Zn and Ge isotopes.