

Abstract Submitted
for the DNP06 Meeting of
The American Physical Society

Binding-Energy Systematics of 0^+ , $T=1$ and 1^+ , 2^+ and 3^+ , $T=0$ States of Odd-Odd Self-Conjugate Nuclides from ^{14}N to ^{38}K FRIEDRICH EVERLING, NCSU, Raleigh, NC, and TUNL, Durham, NC, USA (Early affiliation; present address: Ringheide 24 f, 21149 Hamburg, Germany; everlingf@aol.com) — Binding energies of self-conjugate odd-odd nuclides are plotted as $-B^* + (9.5 \text{ MeV}) \cdot A$ versus mass number A . Four diagrams show all 0^+ , $T=1$ and 1^+ , 2^+ , and 3^+ , $T=0$ states and those without J^π . The connection of states by almost linear trends leads to approximate parallelograms or to single trends if supplemented by complementary levels and reference points. Including 8 unrearranged states according to the phenomenon of 6 MeV steps, 99 states are involved with supposedly relatively clean subshell configurations. Of these, 65 have the corresponding spin, while for 15 known levels the spin has not yet been determined. Four states are complementary and 15 are just reference points, most of them probably forbidden. Two additional complementary levels are isobaric analogs at $A=14$. Trends with different spins are combined in pairs to show parallelisms associated with a spin-flip. The energy gain upon addition of four $1d_{5/2}$ nucleons is almost constant, independent of the occupation of the $1d_{5/2}$ and $1d_{3/2}$ subshells, but not of the $2s_{1/2}$ subshell. A table lists 40 levels for which experimental clarification is needed. The nuclide ^{22}Na has 9 reference points, probably mainly forbidden states caused by the abnormal ground state of the ^{20}Ne core.

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Date submitted: 13 Jun 2006

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