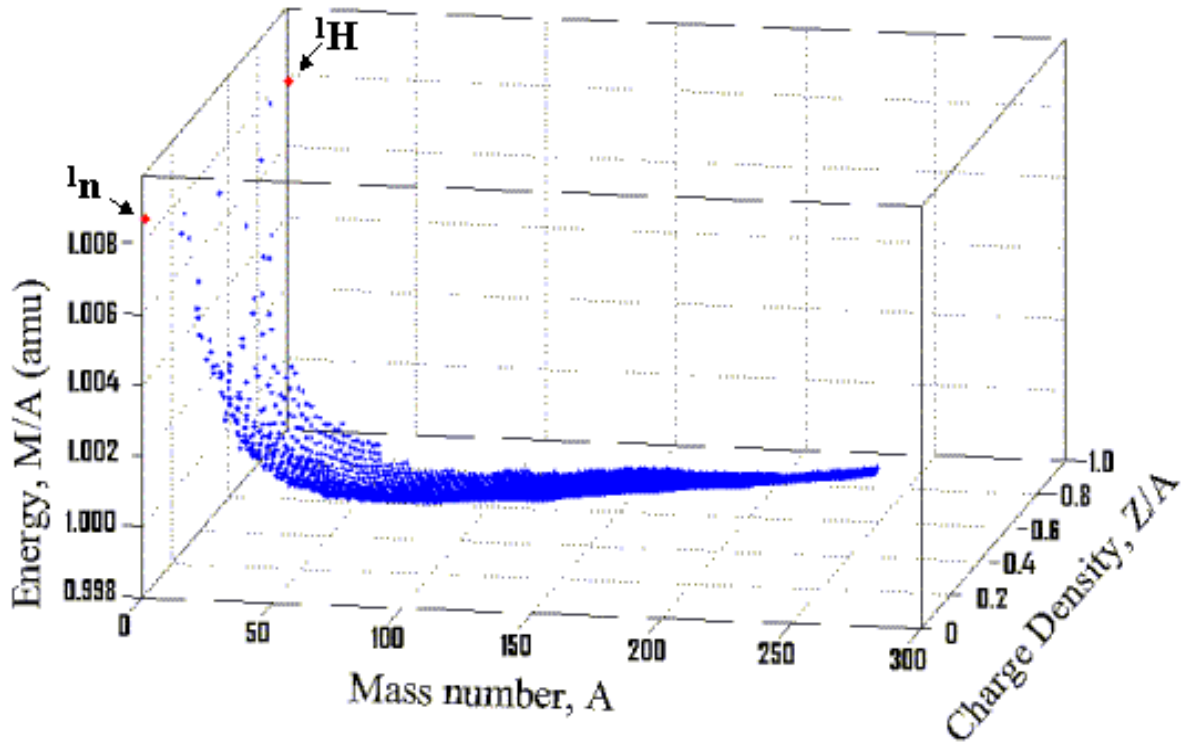


# Cradle of the Nuclides



This is a 3-D plot of potential energy per nucleon,  $M/A$ , versus charge density,  $Z/A$ , versus atomic mass number,  $A$ , for all 2,850 currently known isotopes of the elements [*Nuclear Wallet Cards*, 6<sup>th</sup> edition (Brookhaven National Laboratory, National Nuclear Data Center, Upton, NY, 2000) 74 pp.]. The vertical axis is identical to  $f + 1$ , where  $f$  = Aston's nuclear packing fraction =  $(M-A)/A$ . Systematic properties of these 2,850 nuclides offer an explanation for luminosity of the iron-rich Sun.

[HOME](#)