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Isobaric analog states in odd-odd nuclei LARRY ZAMICK, YITZHAK SHARON, Rutgers, SHADOW ROBINSON, Millsaps, ALBERTO ESCUDEROS, Rutgers, MICHAEL KIRSON, Weizmann — We calculate the excitation energies of Isobaric Analog states in selected odd-odd nuclei. We use the formula for e.g. ^{96}Ag E*(J=0$^{+}T = 2$)= BE(^{96}Ag) - BE(^{96}Pd) +V_C where V_C=E_1 Z / $A^{(1/3)}$ + E_2 ; E_1 =1.441 MeV ; E_2 =-1.06 MeV. We list the following in MeV. ($\Delta(BE)$,V_C,E*(calc), E*(single j),E* (multij shell model), Experiment) ^{44}Sc (4.435, 7.308, 2.873, 3.047, 3.418, 2.779) ^{46}Sc (2.160, 7.148, 5.024 , 4.949, 5.250, 5.022) ^{52}Mn (5..494, 8.399, 2.905, 2.774, 2.731, 2.926) ^{60}Cu (6.910, 9.430, 2.520, 2.235, 2.726 2.536) ^{94}Rh (10.386, 13.043, 2.657, 1.990 , 3.266,.....) ^{96}Ag (12.342, 13.574, 1.142, 0.900, 1.9172,.....) The experimental energies of the isobaric analog states are known for the lighter nuclei but not for ^{94}Rh or ^{96}Ag. If we use the semi-empirical mass formula of Wapstra (2003) one gets the excitation energy in ^{96}Ag to be 0.367 MeV.

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