

PTI

Isoview: view isotope data of U Uranium (page1,2) symbol, mass, abundance %, half-life, decay modes, decay energy, spin parity (1s)	<pre> U Uranium 238.028932 U215 215.02676 '1.4_Hs' "α" "3" U216 216.02476 '6.9_Hs' "α" "3" U217 217.02437 '8.5_Hs' "α" "3" U218 218.02354 '35_Hs' "α" "8.7" U219 219.02492 '60_Hs' "α" "3.86" U220 220.02472 " " "α" "3" U221 221.0264 '66_Hs' "α" "3" U222 222.02609 '4.7_Hs' "α" "3" U223 223.02774 '65_Hs' "α" "8.94" U224 224.027605 '396_Hs' "α" "8" U225 225.02939 '62_Hs' "α" "8.02" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>	<pre> U226 226.029339 '269_Hs' "α" "7" U227 227.031156 '1.1_Min' "α" "8+(3" U228 228.031374 '3.1_Min' "α" "8(5" U229 229.033506 '58_Min' "β+(30)" U230 230.03394 '20.23_d' "α(100)" U231 231.036234 '4.2_d' "α(100)" U232 232.037156 '68.9_yr' "α,SF(3" U233 233.039635 '1.532E5_yr' "α" U234 234.040952 '245500_yr' .0054" U235 235.04393 '7.038E8_yr' .0072" U236 236.045568 '2.342E7_yr' "α" U237 237.04873 '6.75_d' "β-,SF(3" U238 238.0507882 '4.468E9_yr' 99" U239 239.0542933 '23.45_Min' "β-" U240 240.056592 '14.1_h' "β-,α(1" U242 242.06293 '16.8_Min' "β-" "4" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>
Isoview: view isotope data of U Uranium	<pre> U231 231.036234 '4.2_d' "α(100)" U232 232.037156 '68.9_yr' "α,SF(3" U233 233.039635 '1.532E5_yr' "α" U234 234.040952 '245500_yr' .0054" U235 235.04393 '7.038E8_yr' .0072" U236 236.045568 '2.342E7_yr' "α" U237 237.04873 '6.75_d' "β-,SF(3" U238 238.0507882 '4.468E9_yr' 99" U239 239.0542933 '23.45_Min' "β-" U240 240.056592 '14.1_h' "β-,α(1" U242 242.06293 '16.8_Min' "β-" "4" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>	<pre> 2: 1: U235 235.04393 "7.038E8_yr .0072" "α, SF(7E-9)" "4.679" "7/2-" +pte Isoda Isoga Isoua Decay +Deco C12 12.003355 "1.07" "α" "0" C13 13.003355 "1.07" "α" "0" C14 14.003242 '5730_yr' "β-" "0" C15 15.010599 '2.443_s' "β-" "9" C16 16.014701 '747_s' "β-n,β-(2" C17 17.022579 '193_s' "β-,β-n(2" C18 18.02675 '092_s' "β-,β-n(31" C19 19.034805 '049_s' "β-n(47)" C20 20.04026 '016_s' "β-n,β-(30" C21 21.043 '30_Hs' "n" "21" C22 22.05755 '6.2_Hs' "β-" "20.3" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>
Isoget: get data of specific isotope		
Isoview: Carbon C	<pre> C Carbon 12.01078 C8 8.0376743 '3.5E-21_s' "2p" "3" C9 9.031037 '1265_s' "β+,β+,α(3" C10 10.016253 '19.3_s' "β+,β+,α(3" C11 11.011433 '20.36_Min' "β+(99" C12 12.003355 "1.07" "α" "0" C13 13.003355 "1.07" "α" "0" C14 14.003242 '5730_yr' "β-" "0" C15 15.010599 '2.443_s' "β-" "9" C16 16.014701 '747_s' "β-n,β-(2" C17 17.022579 '193_s' "β-,β-n(2" C18 18.02675 '092_s' "β-,β-n(31" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>	<pre> C12 12.003355 "1.07" "α" "0" C13 13.003355 "1.07" "α" "0" C14 14.003242 '5730_yr' "β-" "0" C15 15.010599 '2.443_s' "β-" "9" C16 16.014701 '747_s' "β-n,β-(2" C17 17.022579 '193_s' "β-,β-n(2" C18 18.02675 '092_s' "β-,β-n(31" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>
Isodata: isotope data of Fe	<pre> Fe Iron 55.84526 Fe45 45.01458 '1.89_Hs' "2p,β+(3" Fe46 46.00081 '12_Hs' "β+,β+(36" Fe47 46.99289 '21.8_Hs' "β+,β+(3" Fe48 47.9805 '44_Hs' "β+,β+(3.6" Fe49 48.97361 '70_Hs' "β+,β+(48" Fe50 49.96299 '155_s' "β+,β+(4" Fe51 50.95682 '305_s' "β+,β+(4" Fe52 51.948114 '8.275_h,45_s' "β" Fe53 52.945308 '8.51_Min,2.526_H" Fe54 53.939611 "5.845" "α" "11" Fe55 54.938293 '2.737_yr' "α" "11" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>	<pre> Fe56 55.934937 "91.754" "α" "1" Fe57 56.935333 "2.113" "α" "1" Fe58 57.933224 "2.282" "α" "1" Fe59 58.934876 '44.495_d' "β-" "0" Fe60 59.934072 '2.6E6_yr' "β-" "0" Fe61 60.936745 '5.98_Min' "β-" "0" Fe62 61.936767 '62_s' "β-" "2.54" Fe63 62.94037 '6.1_s' "β-" "6.21" Fe64 63.9412 '2_s' "β-" "4.7" "0" Fe65 64.94538 '1.3_s' "β-" "7.9" "0" Fe66 65.94678 '44_s' "β-" "6.34" Fe67 66.95095 '394_s' "β-" "9.2" Fe68 67.9537 '187_s' "β-" "8.09" Fe69 68.95878 '103_s' "β-" "11" Fe70 69.96146 '94_Hs' "β-" "10.6" Fe71 70.96672 '30_Hs' "β-" "13.3" Fe72 71.96962 '10_Hs' "β-" "11.6" +SKIP SKIP+ +DEL DEL+ DEL L INS = </pre>
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Decay: decay of Pu239 with Decay (1s) →Decay: selects first (main) decay (0.5s)	<pre> 9: 8: 7: 6: 5: 4: 3: 2: 1: "Pu239" "α, SF(3E-10)" "Pu239→U235+α" "U235" +pte Isoda Isoga Isoua Decay +Deco Hdeco </pre>	<pre> 9: 8: 7: 6: 5: 4: 3: 2: 1: "Pb207" +pte Isoda Isoga Isoua Decay +Deco Hdeco </pre>
Decay: Pb207 (0.5s)		
Decay: U231 gives two possibilities, →Decay selects the first →Adecay: gives all decays	<pre> 9: 8: 7: 6: 5: 4: 3: 2: 1: "U231" "α, α(0.004)" "U231+β-→Pa231" "Pa231" +pte Isoda Isoga Isoua Decay +Deco </pre>	<pre> 6: 5: 4: 3: 2: 1: "Bi212" "β-(64.06) α" {"Bi212→Po212+β-"} {"Bi212→Tl208+α"} {"Tl208"} {"Po212"} +Dec Hdeco A+BC AB+C AB+CD Stabl </pre>
Mdecay: gives the main decay chain of Pu239 step by step (1s) Pb207 is a stable isotope	<pre> 9: 8: 7: 6: 5: 4: 3: 2: 1: "Pu239→U235+α" "U235→Th231+α" "Th231→Pa231+β-" "Pa231→Ac227+α" "Ac227→Th227+β-" "Th227→Ra223+α" "Ra223→Rn219+α" "Rn219→Po215+α" "Po215→Pb211+α" +pte Isoda Isoga Isoua Decay +Deco </pre>	<pre> 9: 8: 7: 6: 5: 4: 3: 2: 1: "Pb211→Bi211+β-" "Bi211→Tl207+α" "Tl207→Pb207+β-" "Pb207" +pte Isoda Isoga Isoua Decay +Deco Hdeco </pre>

stable isotopes with abundance in % (0.1s)		
[OK] for Ag107, Ag109 puts them to stack		
Stable isotopes of Xe		
Stable isotopes of Zn, Zr		
AB→C: nuclear reaction (0.1s)		
A→BC: nuclear decay (0.1s)		
NatDecay: natural decay chains (0.1s)		
Uran Radium decay chain		
SolReact: nuclear solar reactions (0.1s)		
CNO cycle:		
AB→CD: nuclear reaction (0.1s)		
ElxZ: element to atomic number and back		
Pretty: pretty display of reactions with MPC-font and back (0.1s)		
HelpPTI: help		

<p>HelpPTI: help</p> <pre>Mdecay En "B-," , En + decay gives main decay chain A+BC A B + A+B+C decay AB+C A B + A+B+C reaction AB+CD A B C + A+B+C+D reaction A..D = isotope, particle e*, p*, n, p, x StableIso _ + .. stable isotopes in choosebox [OK] + stack NatDecay _ + {} choose natural decay chain SolReact _ + {} choose solar</pre> <div style="background-color: black; color: white; padding: 2px;">GRAPH OK</div>	<pre>4XZ E ++ Z symbol ++ atomic number Isonames _ + {} element symbols Isoatnum _ + {} atomic numbers Pretty "..." + "..." pretty display(requires MPCFont) Isonames Isoatnum are called by programs Isodata etc. Lisoi..5 lists with isotope data: symbol, mass, half-life +SKIP[SKIP+] +DEL DEL+ DEL L INS =</pre>
<p>HelpPTI: help</p> <p>Isonames: element symbols</p>	<pre>4"half-life abundance") decay modes (ratio%), decay energy (MeV), spin parity α = alpha emission (He4) β- = electron emission (e-) β+ = positron emission (e+) ε = electron capture p = proton emission n = neutron emission IT = isomeric transition SF = spontaneous fission +SKIP[SKIP+] +DEL DEL+ DEL L INS =</pre> <div style="background-color: black; color: white; padding: 2px;">+SKIP[SKIP+] +DEL DEL+ DEL L INS =</div>