

82 Pb Lead 207.2

Element stability profile chart.

In an effort to improve the utility and understandability of the stability data presented in this section, it is to be noted that this data can be organized into a chart form of presentation that better indicates the stability data's comparability to represent the overall stability characteristic of the element than can be perceived by the examining the individual isotope data points. This overall plot of the log-second half-life values of the isotopes versus the atomic number allows a better summary view of the stability characteristic of the element and its isotopes as well as calling attention to any significant variation of individual values from the general trend for the benefit of aiding in maintaining the accuracy required for a correct trend analysis. It calls attention to the fact that each chart is involved with the plotting of 2 different populations, namely 1 more stable and 1 less stable population of the isotopic constituents., and has the capability of providing a fairly discriminating indication of the overall half life stability values of both types than can be determined by a reading of the raw stability half-life time data. A Stability half-life profile chart for the element 82Pb Lead is accordingly presented in the following as a means of illustrating these desirable features.

On the right hand side of the chart is included a drawing of the top view of a hypothetical structure of the element 82Pb lead. See [[Talk:Nuclear model]]. It can be used in connection with the indications of the stability of the individual members as a tool to determine the best method for adding excess neutrons to a basic $A = 2Z$ (164 nucleon) nuclear structure, so as to allow the locations of the extra neutrons to be made in a manner that best fit's the stability characteristics of each individual isotope.

It is noted that the chart is capable of noting absence of data, which occurred in the case of EE82Pb 194, and in observing that that the data of an individual isotope, such as EE82Pb 202 has a reported half-life value that does not coincide with the profile trend indication of the other chart members. This would be a valuable function for monitoring the accuracy with which this data could be accumulated and reported.

