General Lookup of α-Decay for Optimised Search (GLαDOS)

GLαDOS is an alpha chain constructor, which can help in discerning possible summed energies due to fast decays.

Setup

Pre-requisites

The `GLαDOS` package is a python package. It requires Python3 to be installed and `pip` to be up to date. It also requires the `argparse` package to be installed, but it will be automatically installed.

Install

You can clone the package's `git` repository:

```
$ git clone https://github.com/Yottaphy/glados.git
```

and then enter the directory that was created and install

```
$ cd glados
$ pip install .
```

Usage

Once installed, GLαDOS can be used directly from the terminal. Some flags have to be included for the calculation to take place:

```
$ glados [-h] -i INPUTFILE [-z zmin zmax] [-n nmin nmax] -p PARENTENERGY -c
CHILDENERGY -s SUMPEAK
```

Flags in square brackets are optional. The rest are mandatory. SUMPEAK is a number: 1 for summing in the first decay, 2 for summing in the second decay. Anything else will not assume summing.

Output

The output shows a list of possible chains, each in their own table. They can be saved into an output file like:

```
$ glados [...] > outputname.txt
```

where `[...]` are the relevant flags and `outputname.txt` is the output file name, saved at the directory from which you launch GLαDOS.