

Interactive PSF database Interface



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Current PSF Interface

The current Interface serves to make evaluated data available for the users to download by method or the entire database

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Photon Strength Function Database

Experimental data

The PSF database contains all the experimental PSF data that were compiled by the IAEA CRP on Generating a Reference Database for Photon Strength Functions [CRP-photonuclear] methods that have been used to extract experimental PSF data are extensively described and assessed in the CRP technical report that is published in [1], and in the recent IAEA report

The data files naming convention is self-explanatory and includes: the type and multipolarity of the PSF $XL=\{E1|E2|M1|1\}$ (1 stands for E1+M1), if it is experimental or theoretical data, n (Z,A), method used (NRF, OM, ARC/DRC, pg, pp, RM, photonuclear), NSR keynumber is added for photonuclear data.

$f\{XL\}_{exp|the_Z_A_method_NSRKeyNo}.dat$, e.g. $fe1_exp_012_024_photoabs_1966DoI.dat$, $f1_exp_042_097_OM_3he_2.dat$

Each data file is accompanied by a README file with the same naming convention but with the extension 'readme'. The README file contains all the information about the measurement **experimental method, the model dependent analysis and parameters as well as the reference.**

An interface that would allow the user to plot and compare the measured PSFs is under construction.

Here you download the data files for each method:

- **UPDATED [1 May 2023]** NRF measurements for 23 nuclei with Z=32-78: [\[download\]](#)
- **UPDATED [1 May 2023]** charged-particle reaction data with the Oslo method for 72 nuclei with Z=21-94: [\[download\]](#)
- **UPDATED-corrected [19 Sep 2022]** ARC/DRC measurements for 71 nuclei with Z=9-94: [\[download\]](#)
- (p,g) measurements for 22 nuclei with Z=22-40: [\[download\]](#)
- ratio method measurement for 1 nucleus, ^{95}Mo (1 file): [\[download\]](#)
- **UPDATED [1 May 2023]** (p,p_g) measurements for 3 nuclei, ^{96}Mo , ^{120}Sn and ^{208}Pb : [\[download\]](#)
- E1 photodata for 159 nuclei with Z=3-94: [\[download\]](#)
- **NEW - corrected [19 Sep 2022]** Thermal Capture (THC) measurements (incl. EGAF) for 55 nuclei with Z=9-90: [\[download\]](#)
- The entire experimental database can be downloaded here: [\[download\]](#)



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Overview of the key features of the Interface

The **3** key features to the new interactive interface are the **SEARCH**, **PLOT**, **DATA** and **TABLES**

1) Search Features (Querying the database):

Flexible Search: Easily search by **Z, A, XL, or Method.**

User-Friendly: Auto-complete functionality ensures you only see available records.

Error Handling: If an item doesn't exist, you're promptly notified.

2) Plotting Data:

Instantly generate plots based on search criteria.

Customizable views: Toggle axes, zoom, and deselect traces.

Download your results: Save plots as PNG or download query results in ZIP & CSV formats.

3) Data Table:

Displays results in a detailed table format.

Features: Pagination, search, and ordering.

Intuitive: Search is case-insensitive and table can be ordered by multiple criteria.