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Objective: To read cross sections from the IAEA 2019 photonuclear data base. Demonstration of the R-package: clanENDF.

Github repository:

https://github.com/claus-e-andersen/clanENDF

IAEA normaly starts with the total photon absorption cross section, i.e. the probability for the photon to be absorbed regardless what then happens.

Then they normally give the cross section for neutron production.

IAEA data:

https://www-nds.iaea.org/photonuclear/

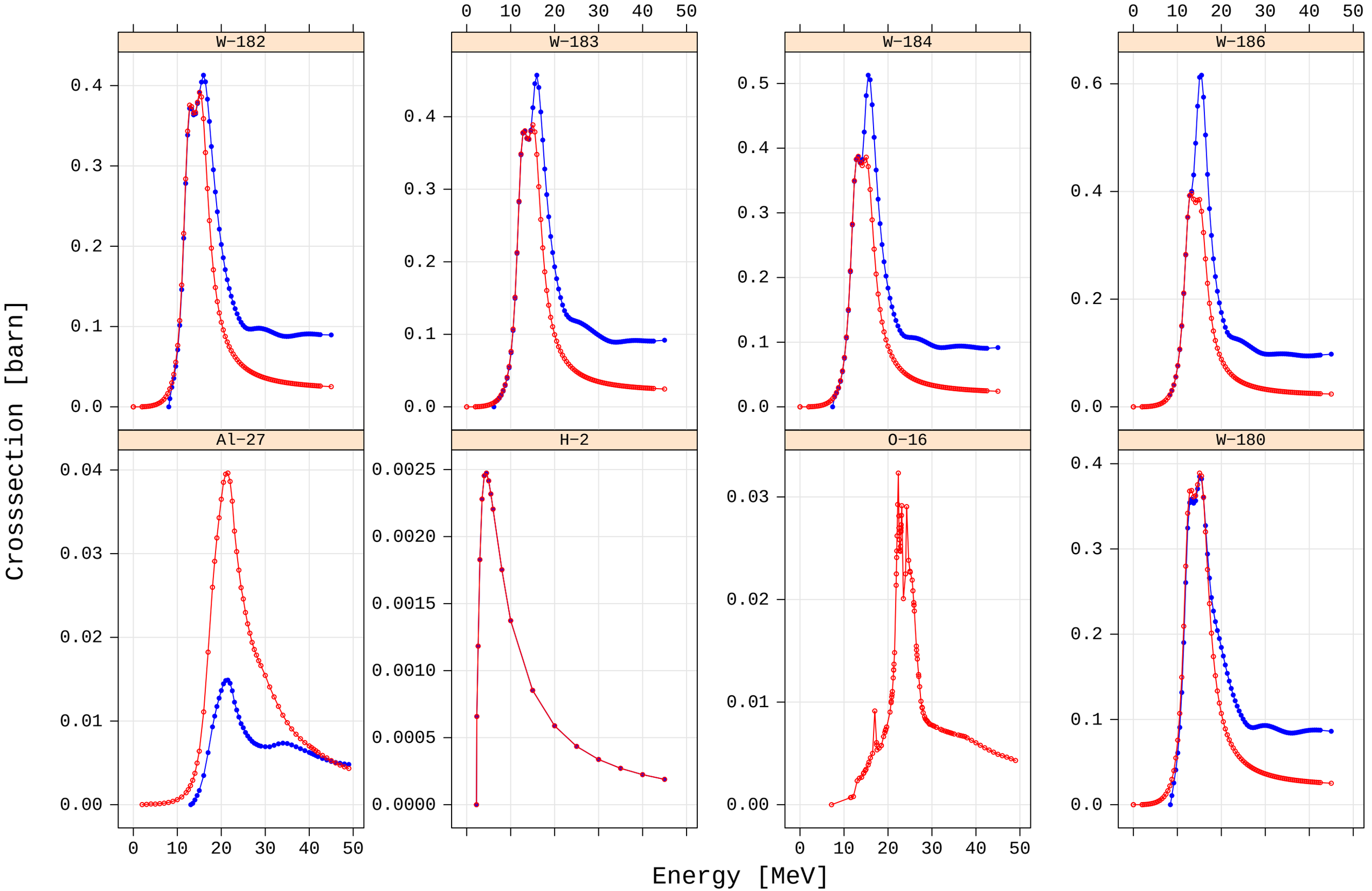
The original ENDF-6 format filecan be downloaded here:

https://www-nds.iaea.org/photonuclear/pdfilelist.html

**IAEA photonuclear data (2019)**

**Cross section vs. energy stratified by target isotope and nuclear process**

neutron production ● total ○



**IAEA photonuclear data (2019)**

**Cross section vs. energy stratified by target isotope and nuclear process**

neutron production ● total ○

W−182 | W−183 | W−184 | W−186

Al−27 | H−2 | O−16 | W−180

Log10( Crosssection [barn])

Energy [MeV]