**Nuclear Data Section**

**International Atomic Energy Agency**

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**Memo CP-D/1062**

**Date:** 13 December 2022

**To:** Distribution

**From:** N. Otsuka, A. Rodrigo

**Subject: Status of Filatenkov’s activation cross sections (EXFOR 41240/41614)**

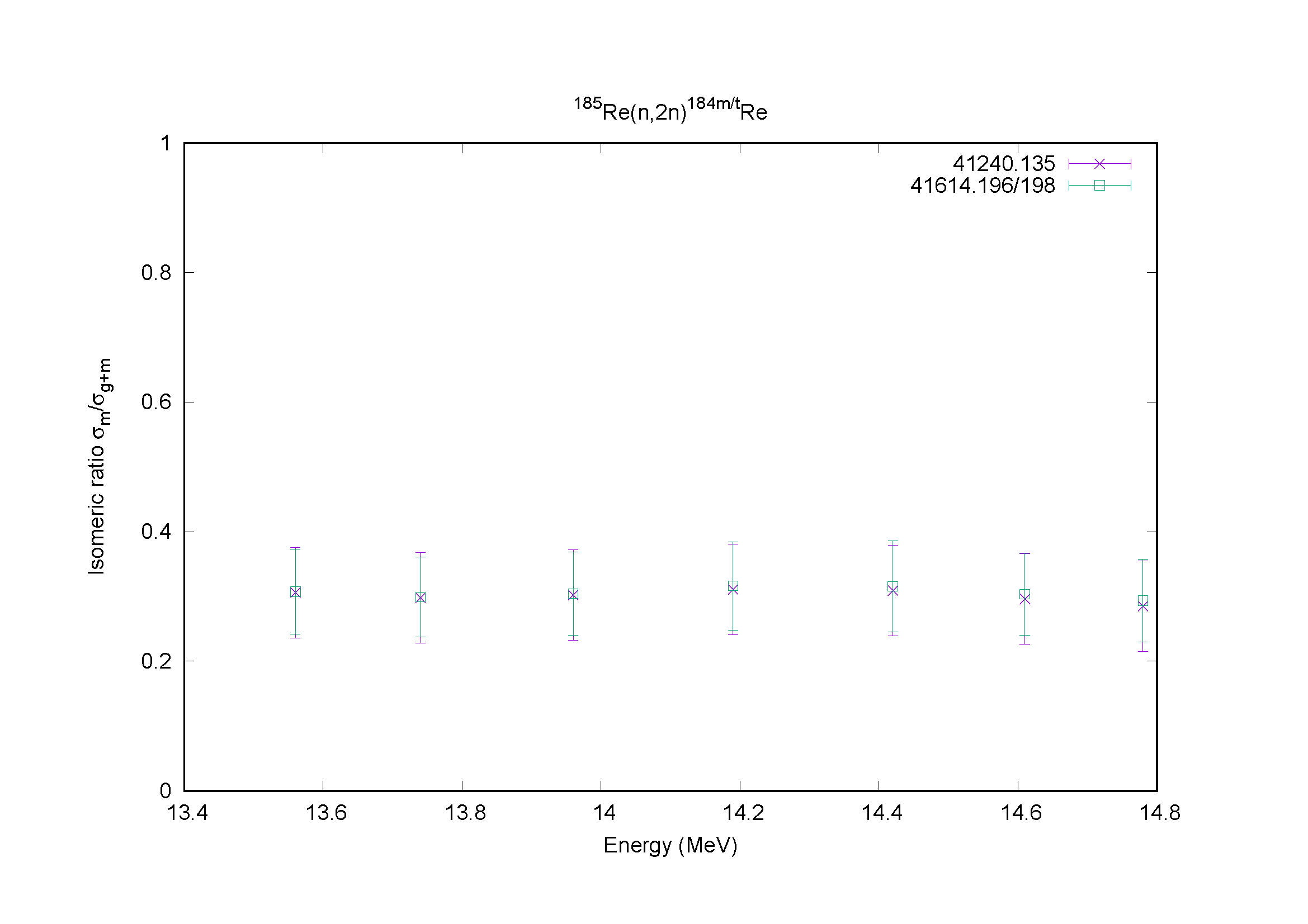
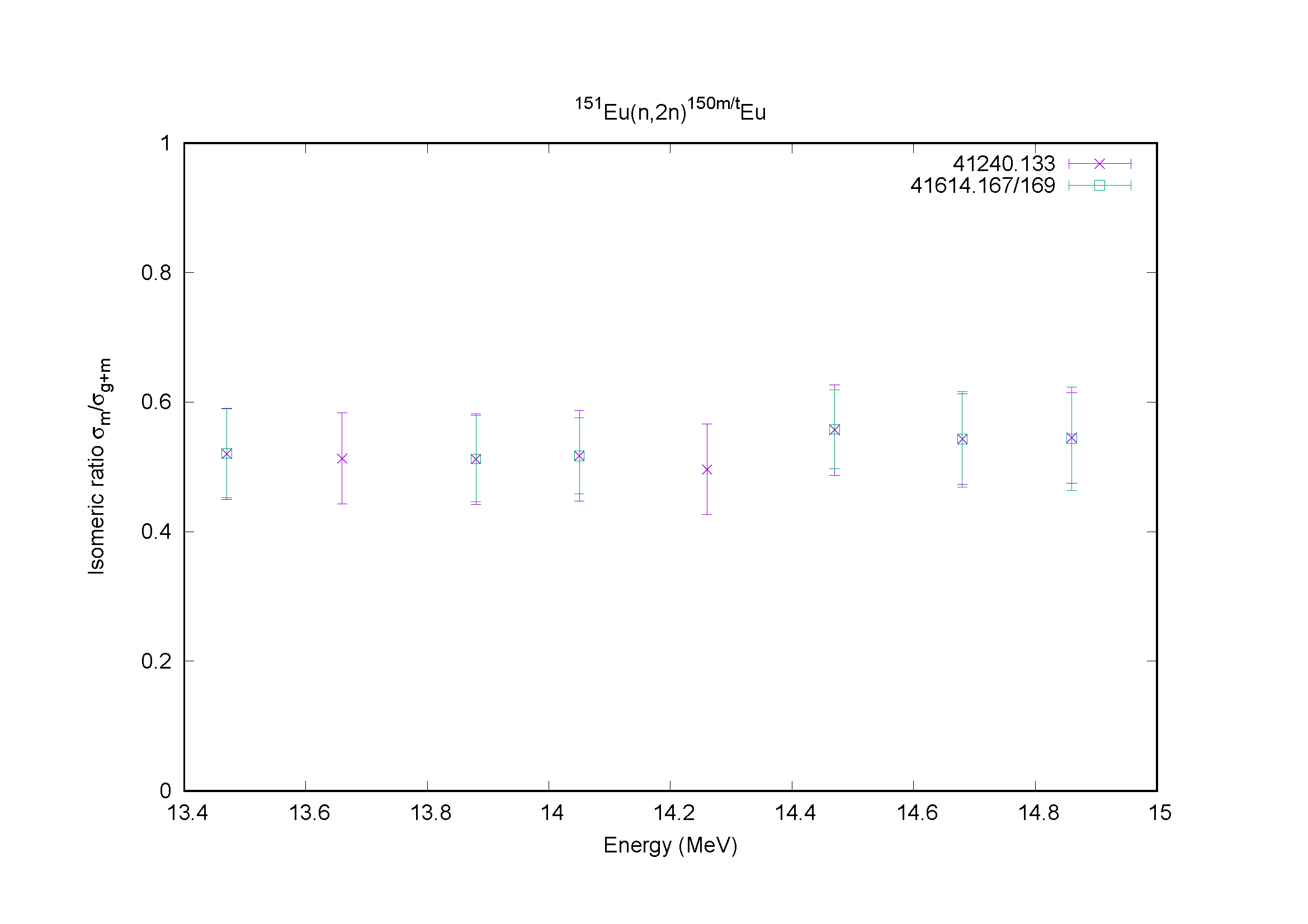
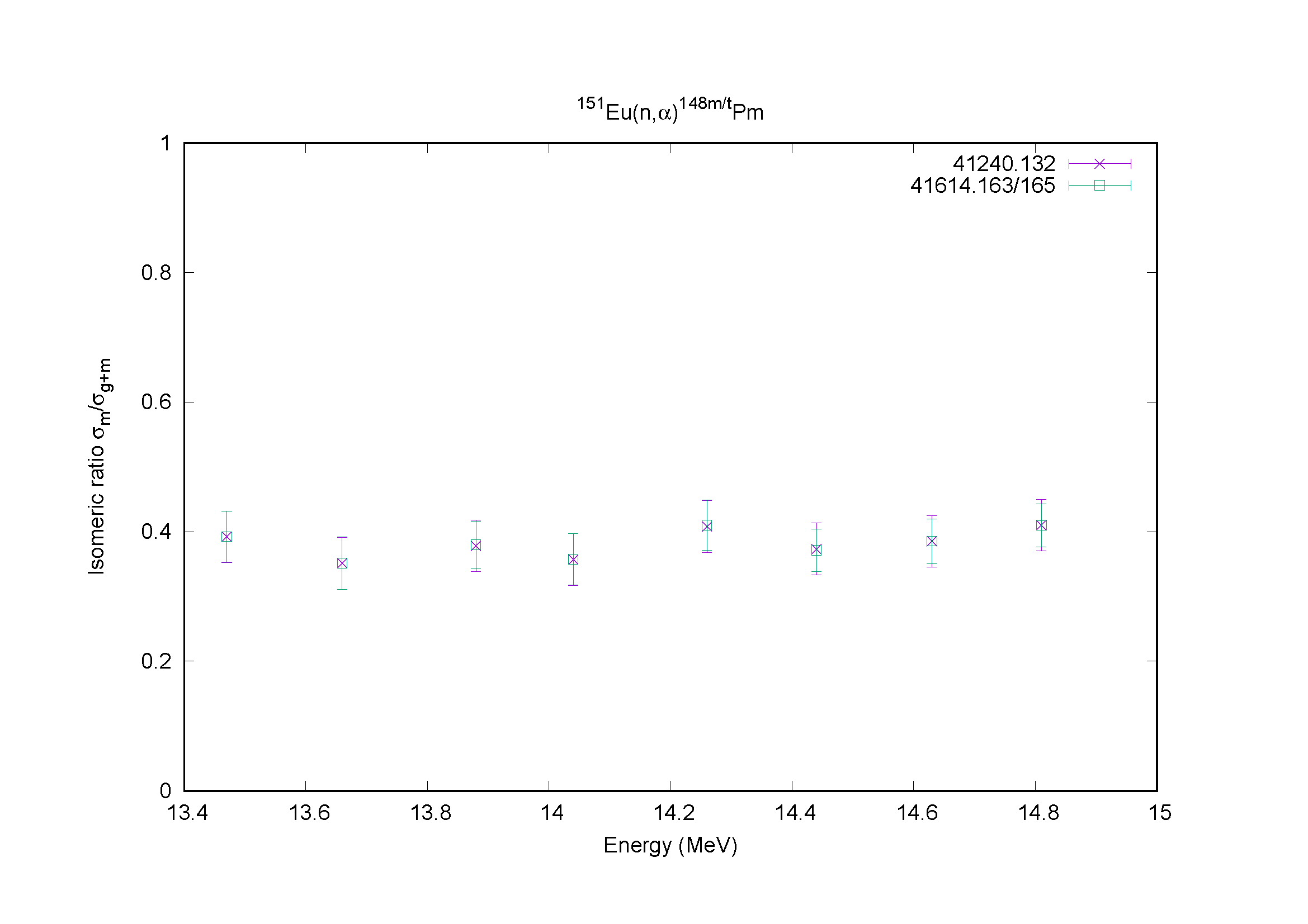
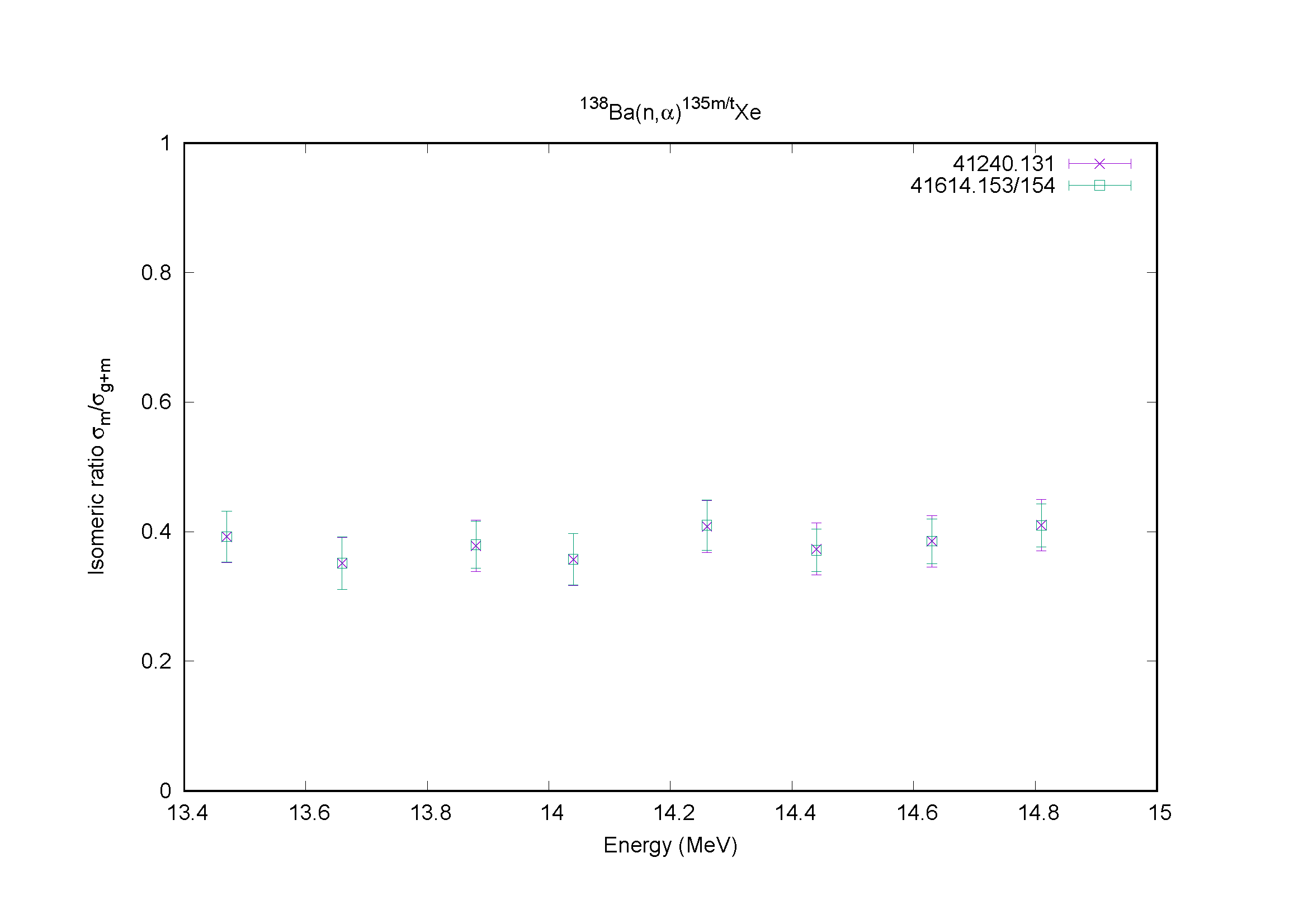
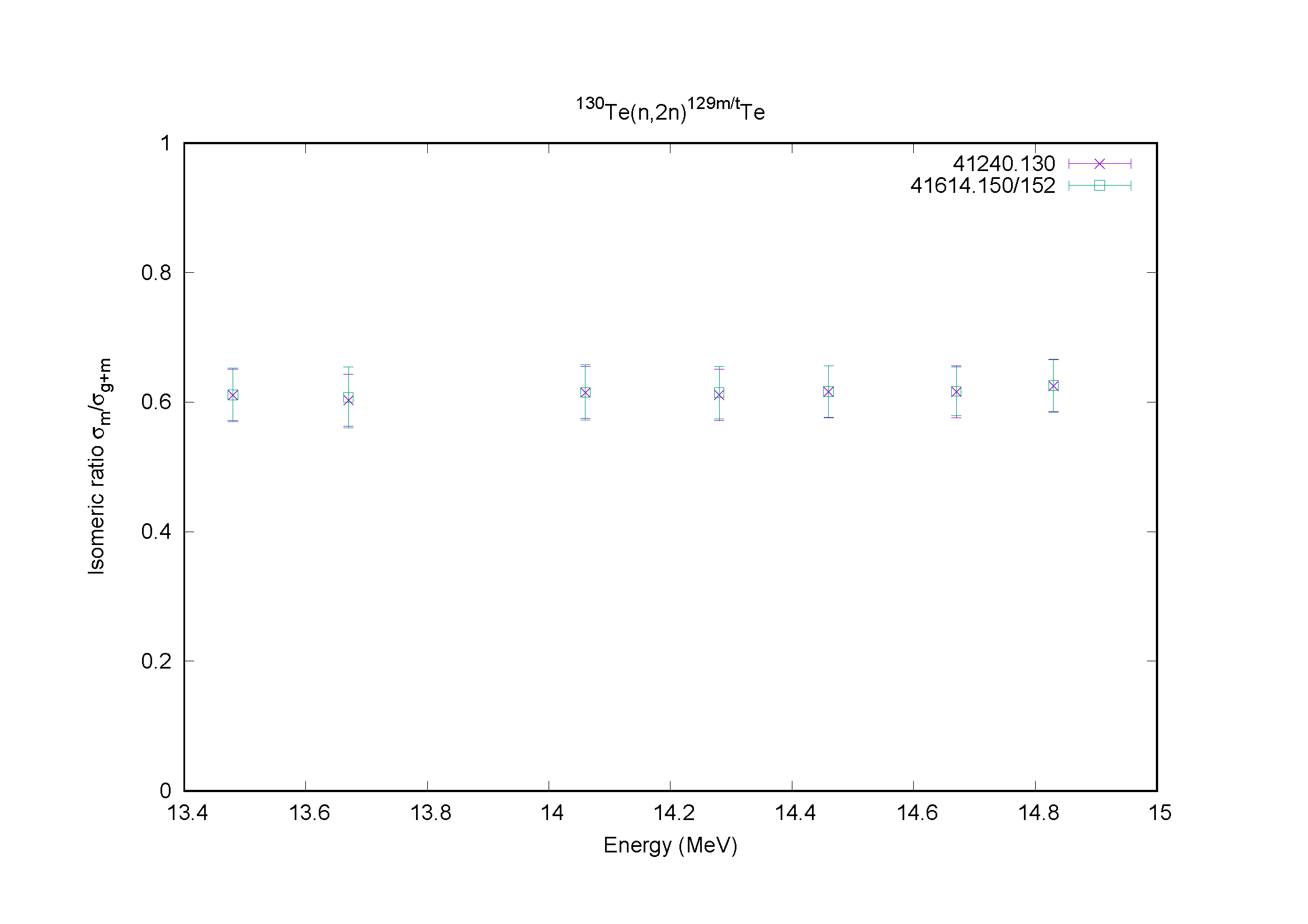
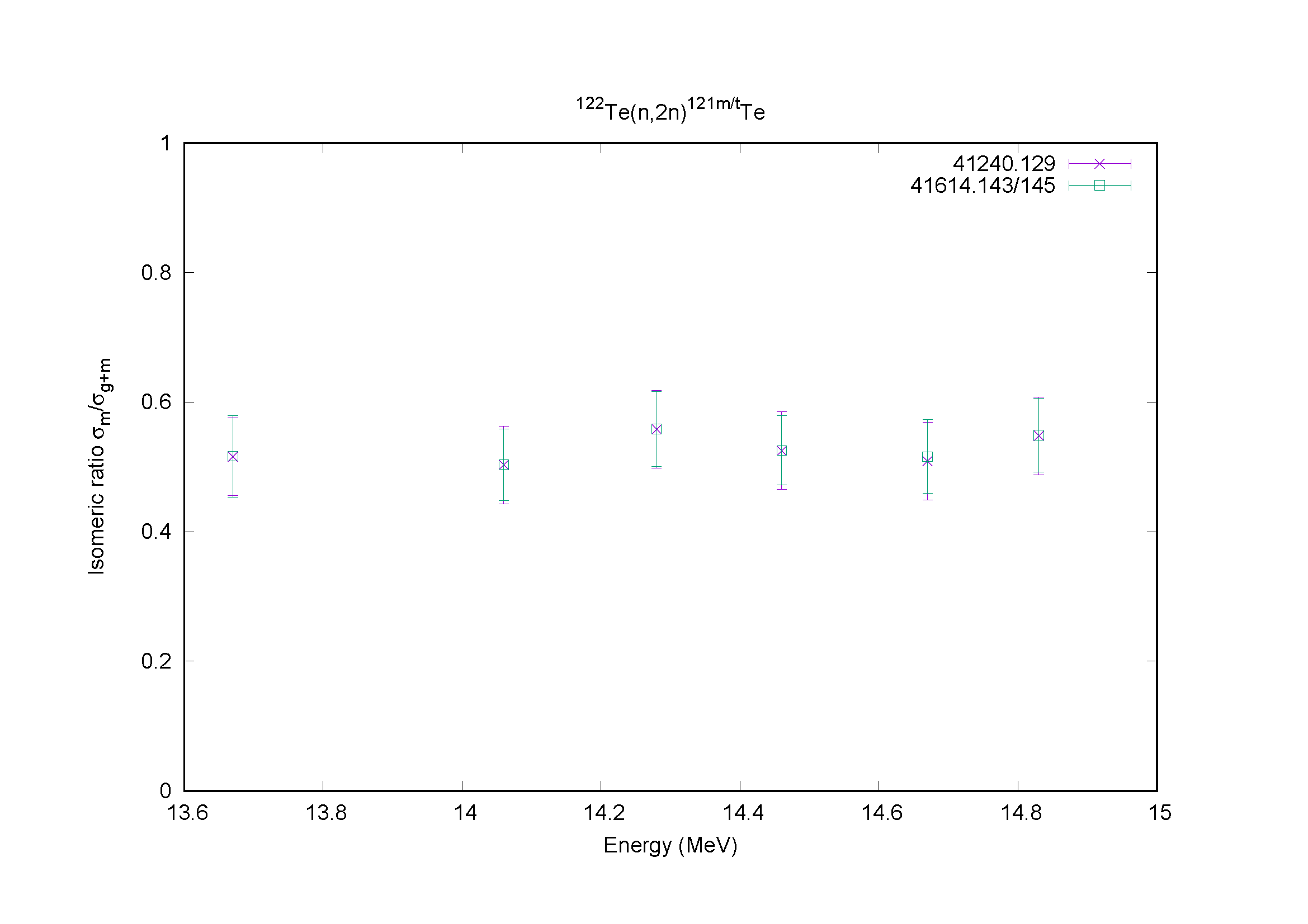
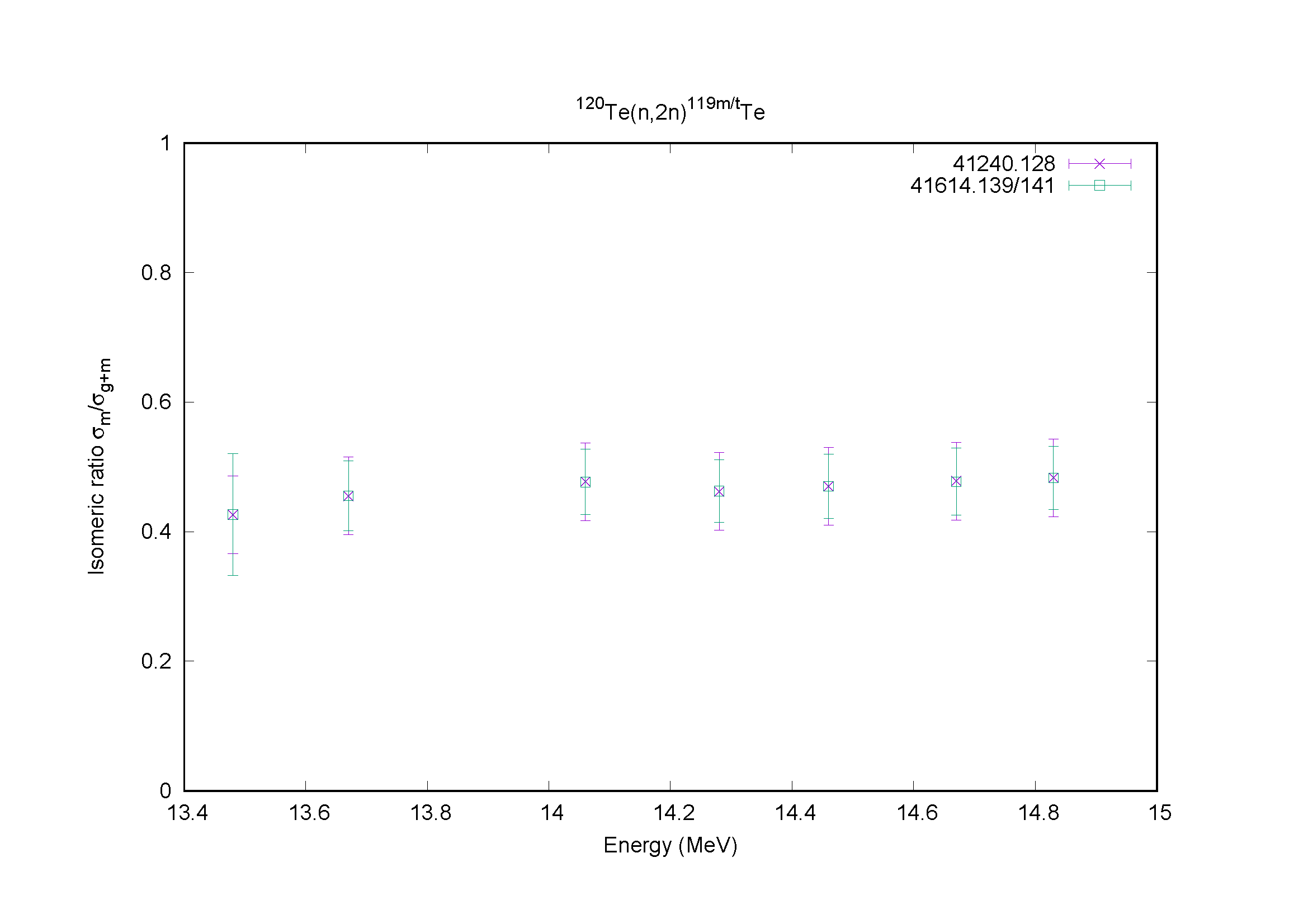
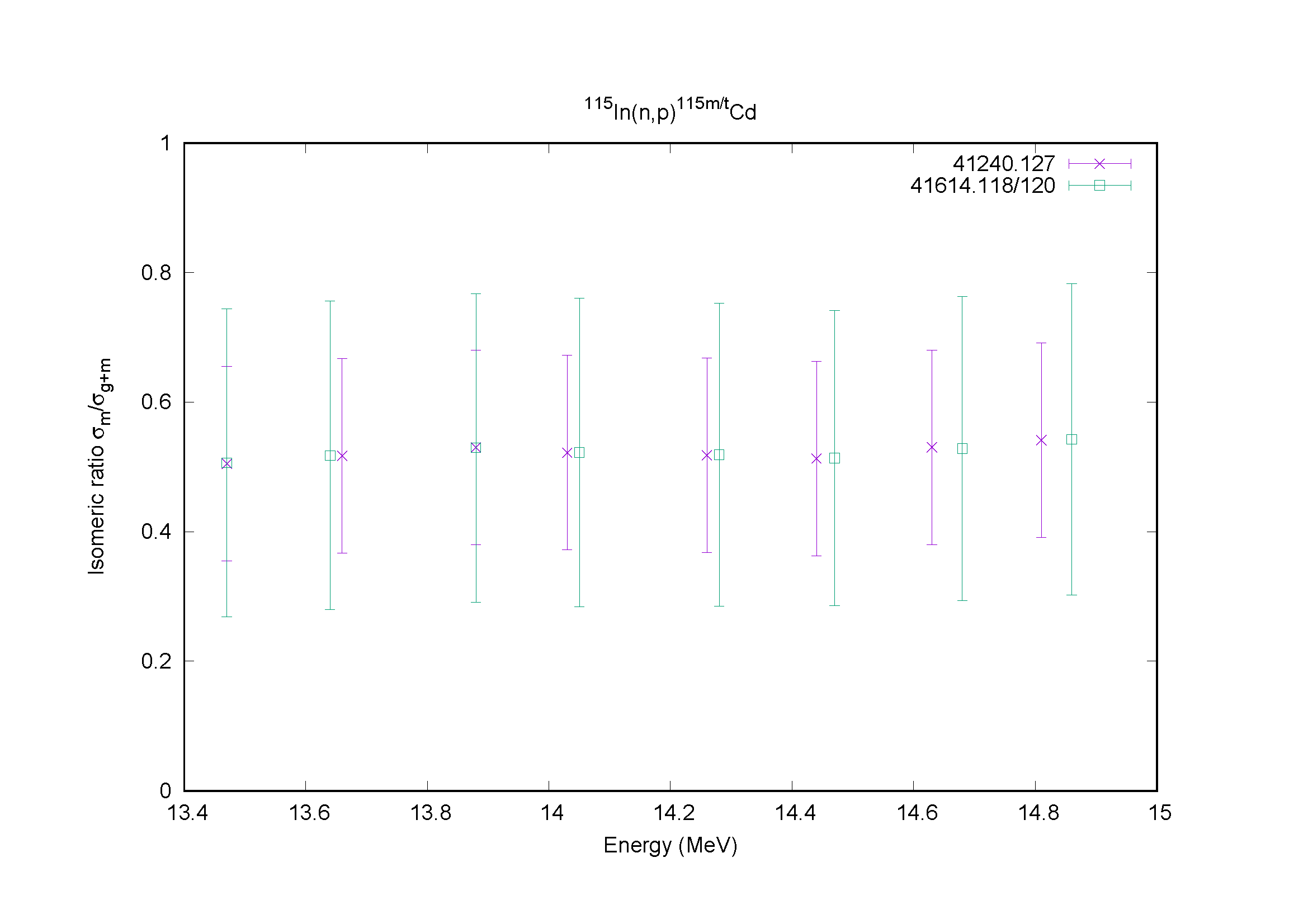
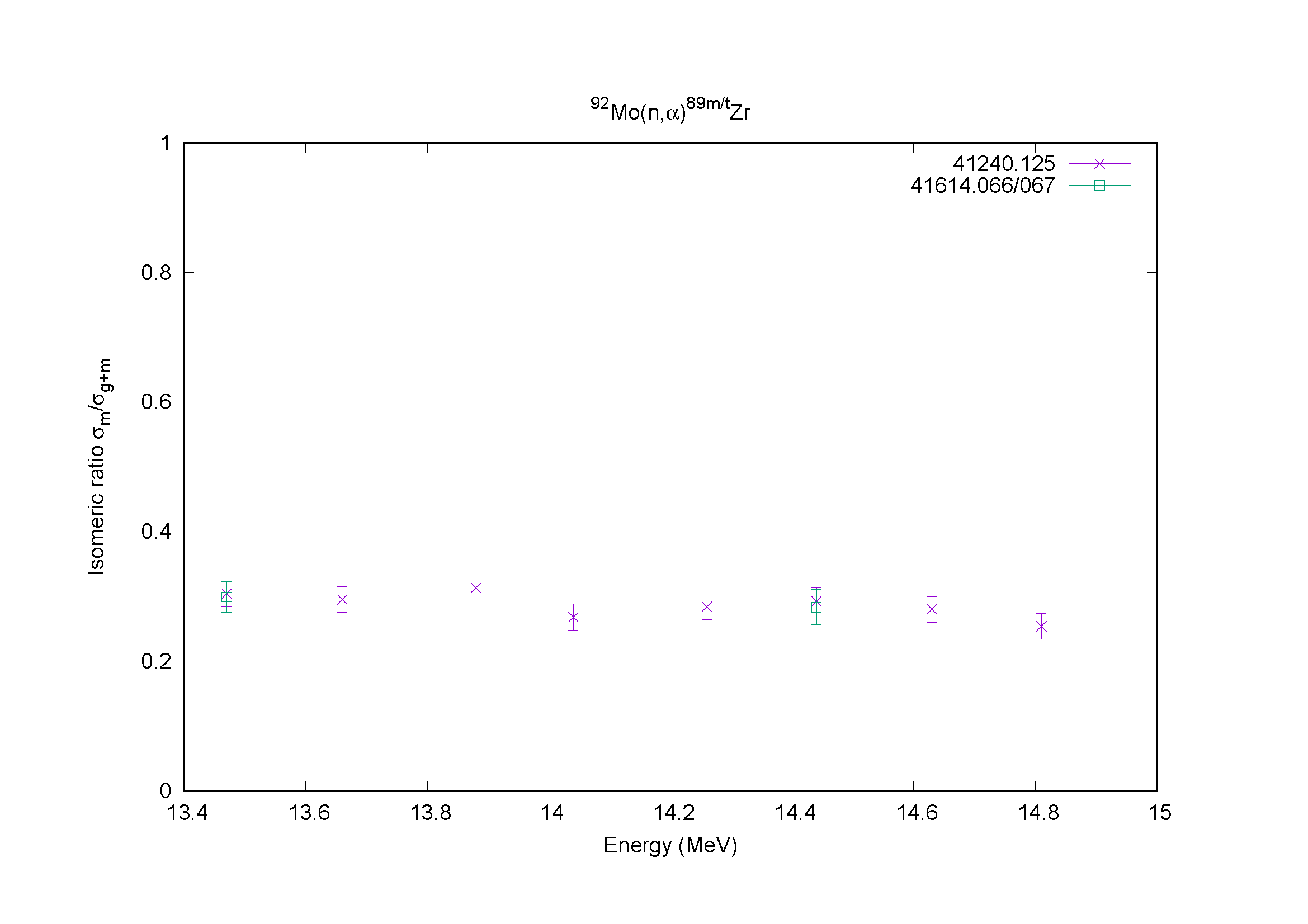
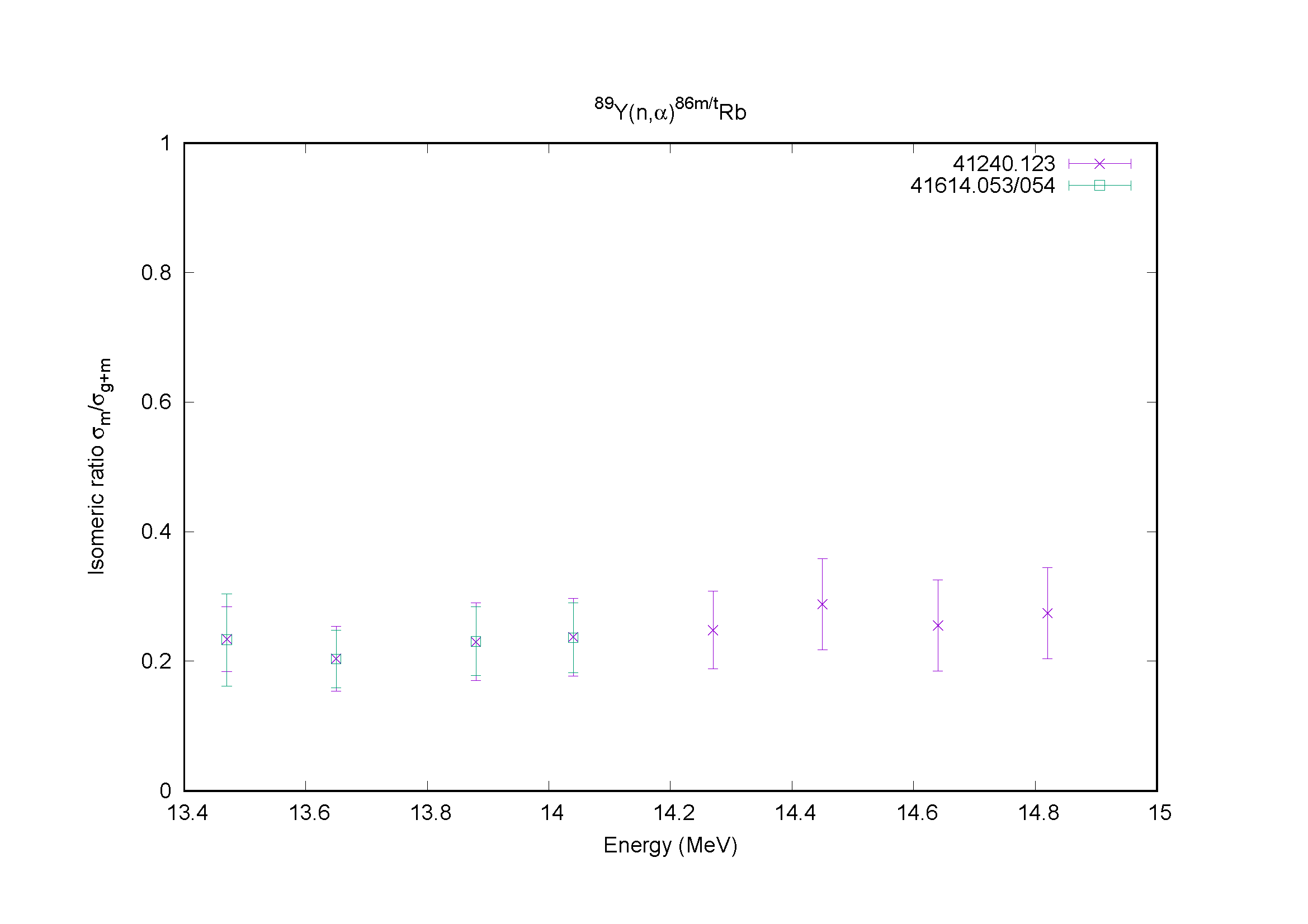
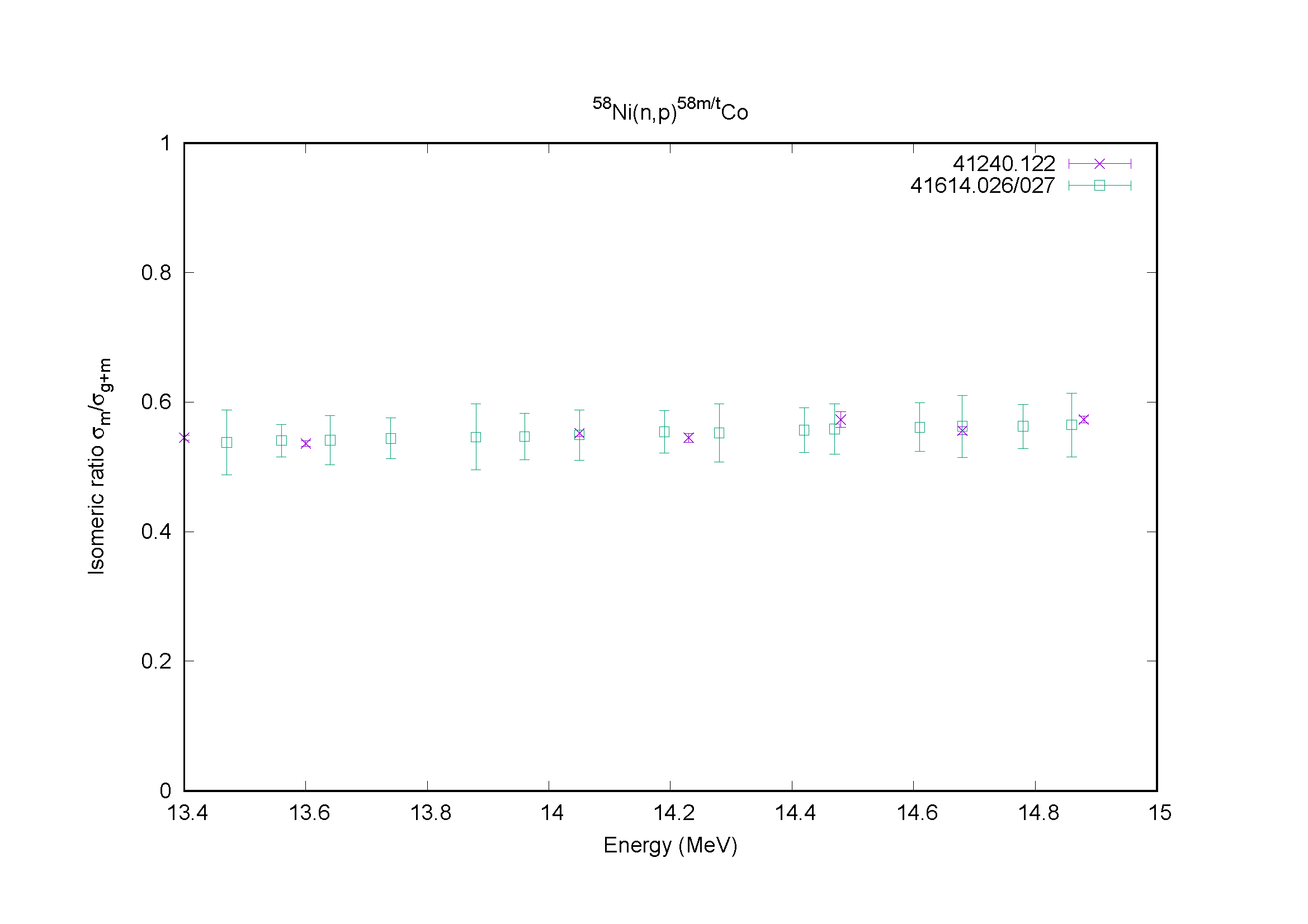
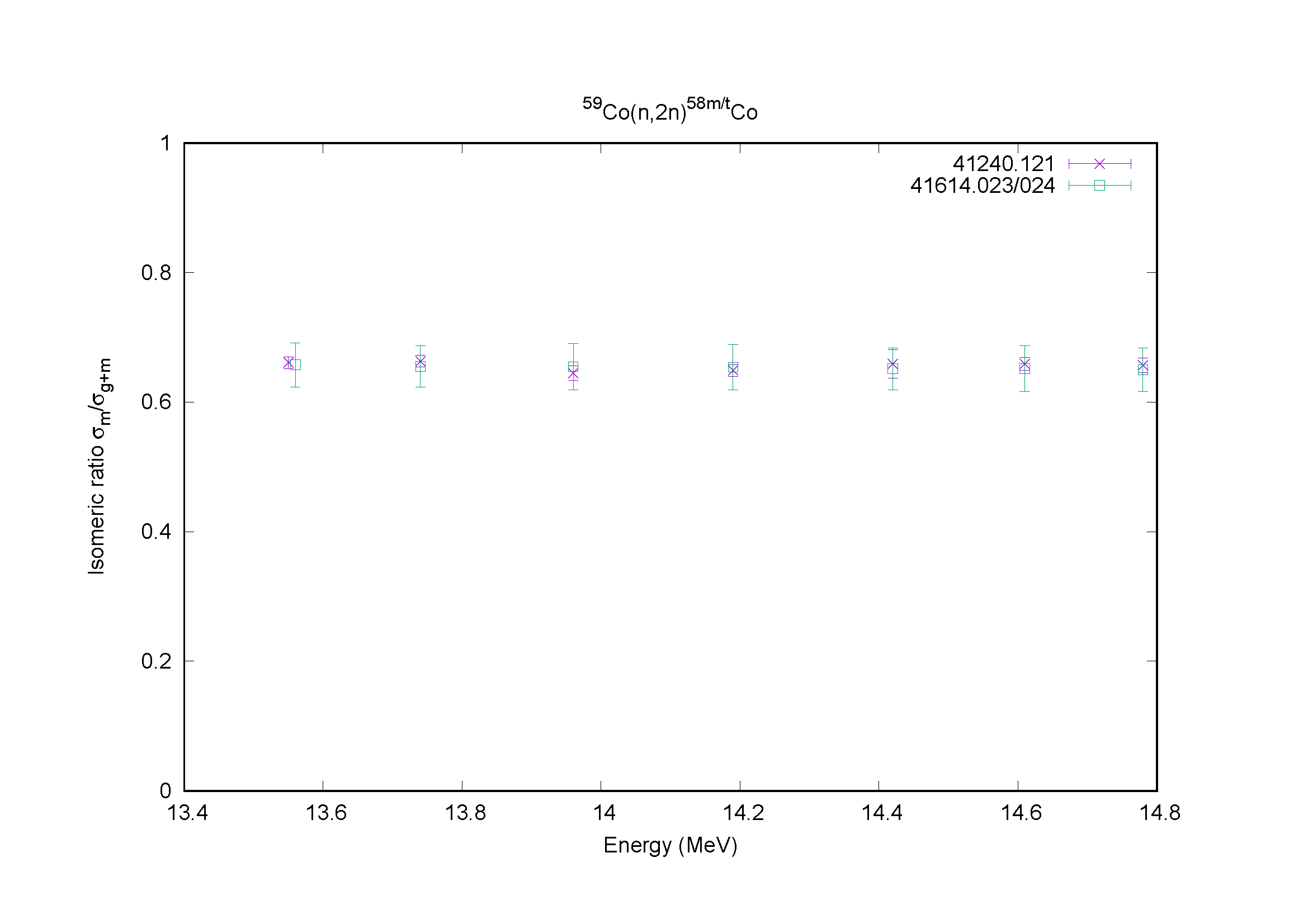
**Reference: Memo CP-D/1061**

After comparison of Filatenkov’s activation cross sections in EXFOR 41424 and 41614, we also found similar pairs between EXFOR 41420 from RI-252 (1999) and EXFOR 41614 compiled from INDC(CCP)-0460 (2016).

|  |  |  |  |
| --- | --- | --- | --- |
| **Reaction** | **RI-252** | **INDC(CCP)-0460** | **Proposed action** |
| 59Co(n,2n)58Co | 41240.121 | 41614.023/024 | SPSDD |
| 58Ni(n,p)58Co | 41240.122 | 41614.026/027 | SPSDD |
| 89Y(n,α)86Rb | 41240.123 | 41614.053/054 | ? Some points discarded in 41614? |
| 92Mo(n,α)89Zr | 41240.125 | 41614.066/067 | ? Some points discarded in 41614? |
| 115In(n,p)115Cd | 41240.127 | 41614.118/120 | SPSDD |
| 120Te(n,2n)119Te | 41240.128 | 41614.139/141 | SPSDD |
| 122Te(n,2n)121Te | 41240.129 | 41614.143/145 | SPSDD |
| 130Te(n,2n)129Te | 41240.130 | 41614.150/152 | SPSDD |
| 138Ba(n,α)135Xe | 41240.131 | 41614.153/154 | SPSDD |
| 151Eu(n,α)148Pm | 41240.132 | 41614.163/165 | SPSDD |
| 151Eu(n,2n)150Eu | 41240.133 | 41614.167/169 | ? Some points discarded in 41614? |
| 185Re(n,2n)184Re | 41240.135 | 41614.196/198 | SPSDD |

We suggest CJD (1) superseding the nine 41240 datasets (121-122, 127-132, 135) by the corresponding 41614 datasets and (2) consulting with the authors whether we should supersede the rest three 41240 datasets (123, 125, 133), too

Note that our assessment does not study production of a nuclide having two or more metastable states.



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