





| E_initial | Pass Au | | in Mylar | | in Si | | Total E_loss | E_final |
|-----------|----------|------------|----------|------------|----------|------------|--------------|---------|
| | dE/dx | dE | dE/dx | dE | dE/dx | dE | | |
| 5.2634 | 0.445194 | 0.04140304 | 0.113411 | 0.16671417 | 0.140793 | 0.08306787 | 291.185082 | 4.9722 |
| 5.3201 | 0.44315 | 0.04121295 | 0.112633 | 0.16557051 | 0.13988 | 0.0825292 | 289.31266 | 5.0310 |
| 5.3404 | 0.442432 | 0.04114618 | 0.112361 | 0.16517067 | 0.139559 | 0.08233981 | 288.656656 | 5.0517 |
| 5.4232 | 0.439462 | 0.04086997 | 0.111232 | 0.16351104 | 0.138232 | 0.08155688 | 285.937886 | 5.1372 |
| 5.4486 | 0.438551 | 0.04078524 | 0.110885 | 0.16300095 | 0.137825 | 0.08131675 | 285.102943 | 5.1634 |
| 5.6854 | 0.430056 | 0.03999521 | 0.107657 | 0.15825579 | 0.13403 | 0.0790777 | 277.328698 | 5.4080 |
| 6.0508 | 0.417276 | 0.03880667 | 0.10283 | 0.1511601 | 0.128355 | 0.07572945 | 265.696218 | 5.7851 |
| 6.0899 | 0.416125 | 0.03869963 | 0.102417 | 0.15055299 | 0.127868 | 0.07544212 | 264.694735 | 5.8252 |
| 6.2881 | 0.410292 | 0.03815716 | 0.100322 | 0.14747334 | 0.125396 | 0.07398364 | 259.614136 | 6.0284 |
| 6.7783 | 0.395864 | 0.03681535 | 0.095141 | 0.13985727 | 0.119281 | 0.07037579 | 247.048412 | 6.5312 |
| 8.7849 | 0.34775 | 0.03234075 | 0.078855 | 0.11591685 | 0.100003 | 0.05900177 | 207.25937 | 8.5776 |

Unit: Energies are in MeV; dE/dx are in MeV/ μm .

dE/dx are calculated by LISE++ with Ziegler model.

The Au layer thickness is unknown, the ^{228}Th alpha source data was used here.

For ^{228}Th and ^{232}U α source

Four peaks can be used (green) to calibration.

Of course, 6.0508 and 6.0899 can be used as one peak: 6.062 MeV ($6.051 \cdot 72\% + 6.090 \text{MeV} \cdot 28\%$)

| E_initial | E_final |
|-----------|---------|
| 5.2634 | 4.9722 |
| 5.3201 | 5.0310 |
| 5.3404 | 5.0517 |
| 5.4232 | 5.1372 |
| 5.4486 | 5.1634 |
| 5.6854 | 5.4080 |
| 6.0508 | 5.7851 |
| 6.0899 | 5.8252 |
| 6.2881 | 6.0284 |
| 6.7783 | 6.5312 |
| 8.7849 | 8.5776 |

