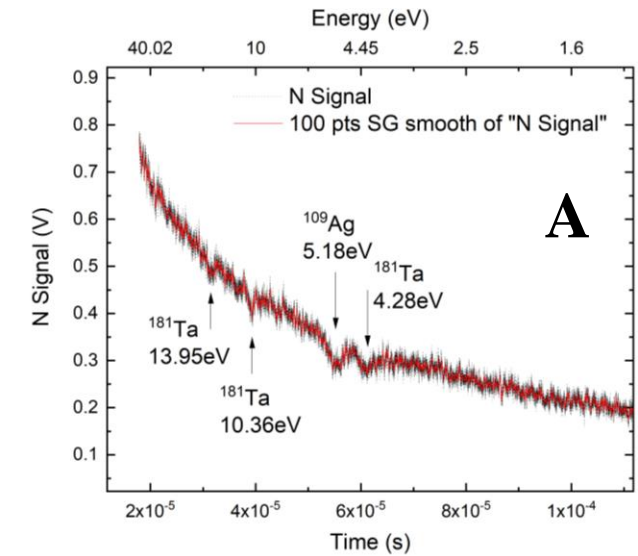
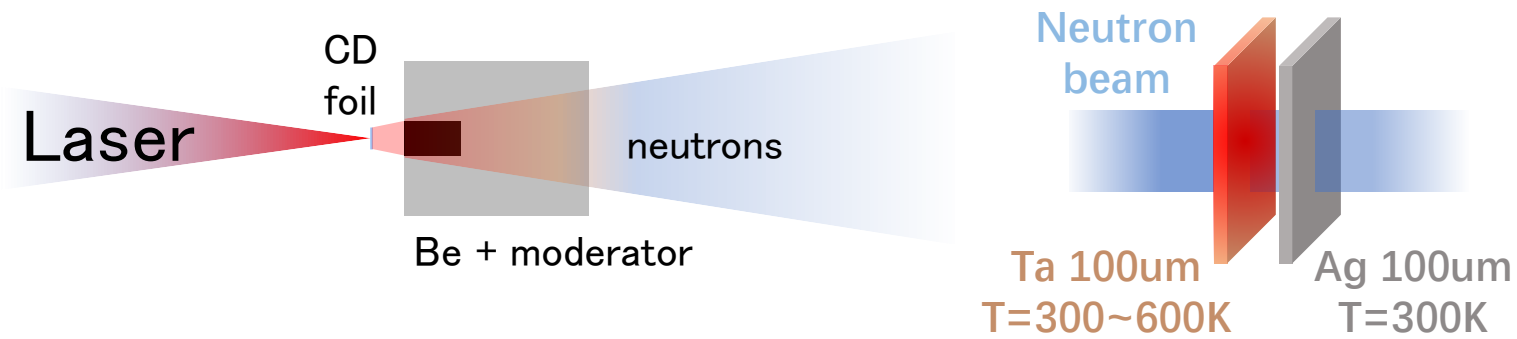


High-speed Atomic Thermometer using Single-shot of Laser-driven Neutron Pulse

JPS Spring Conference, 2023



Laser-driven neutron source + neutron resonance analysis

1. Neutron resonance was detected with **Single Shot** of LDNS. (Figure A)
2. Neutron transmission data was fitted by a mathematical model based on Breit-Wigner Single Level formula of resonance. (Figure B)
3. The resonance peaks were verified to have a dependence with temperature (Figure C), which suggests atomic thermometer using LDNS is feasible.

