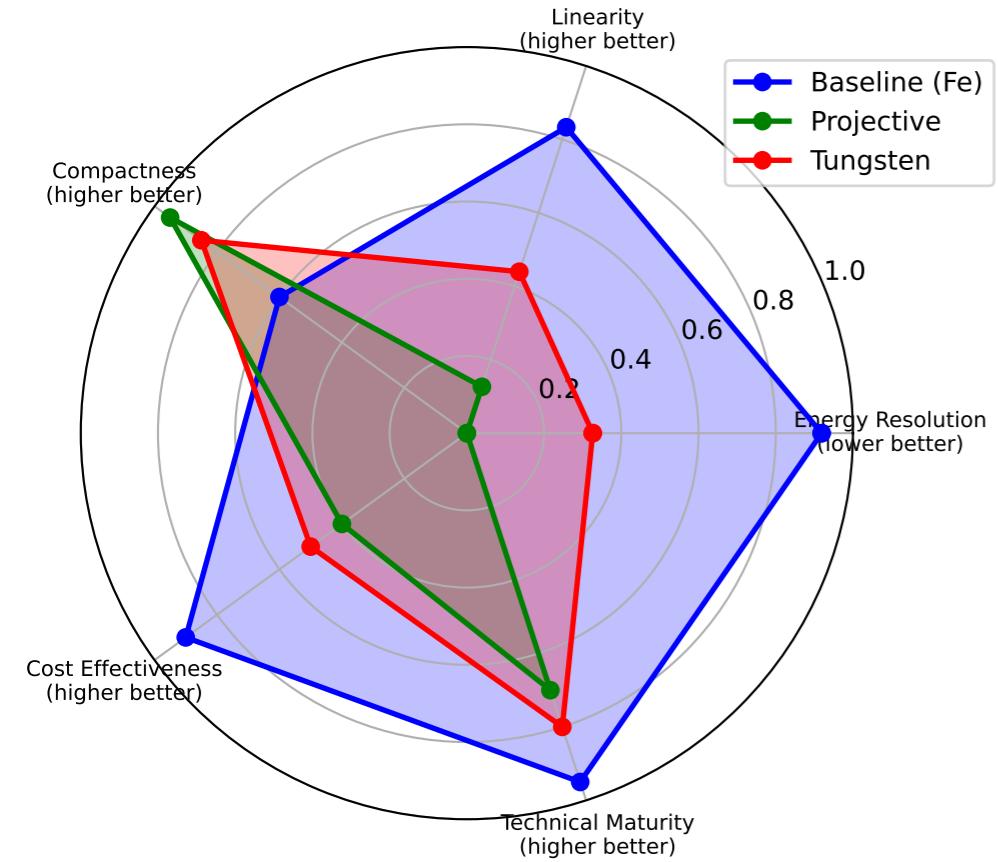
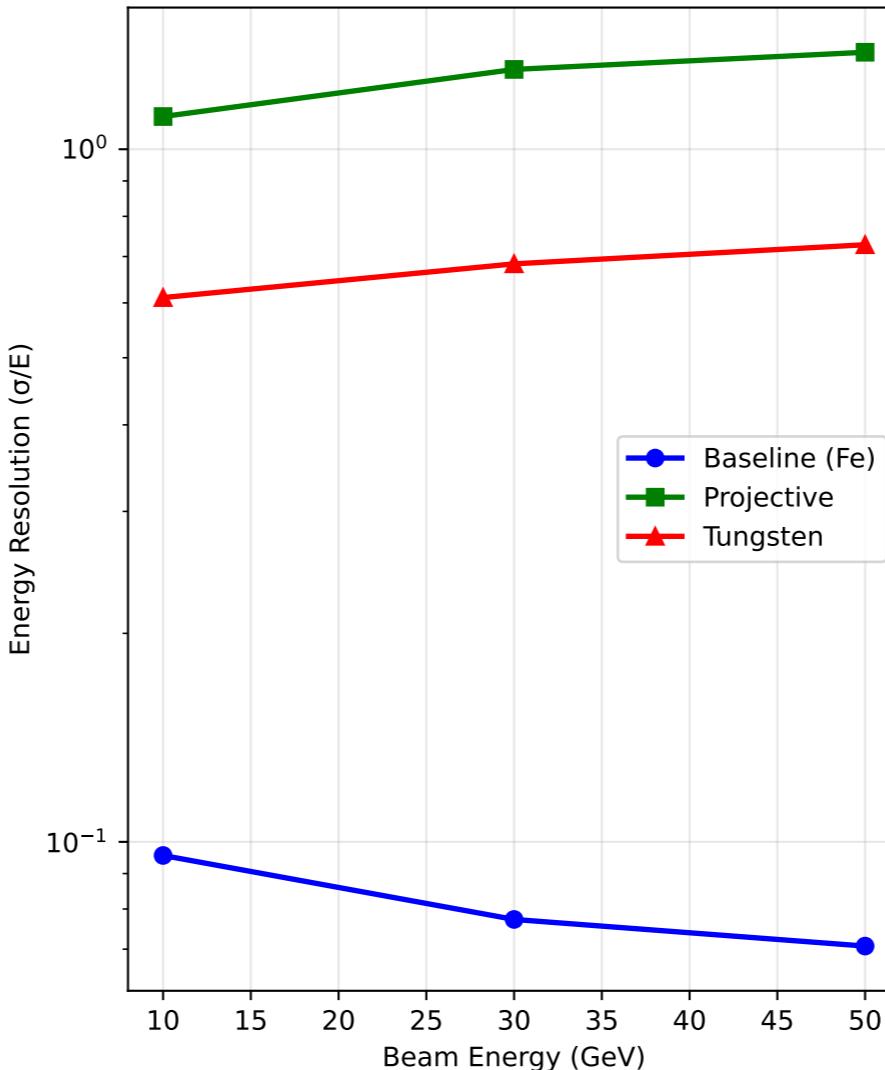


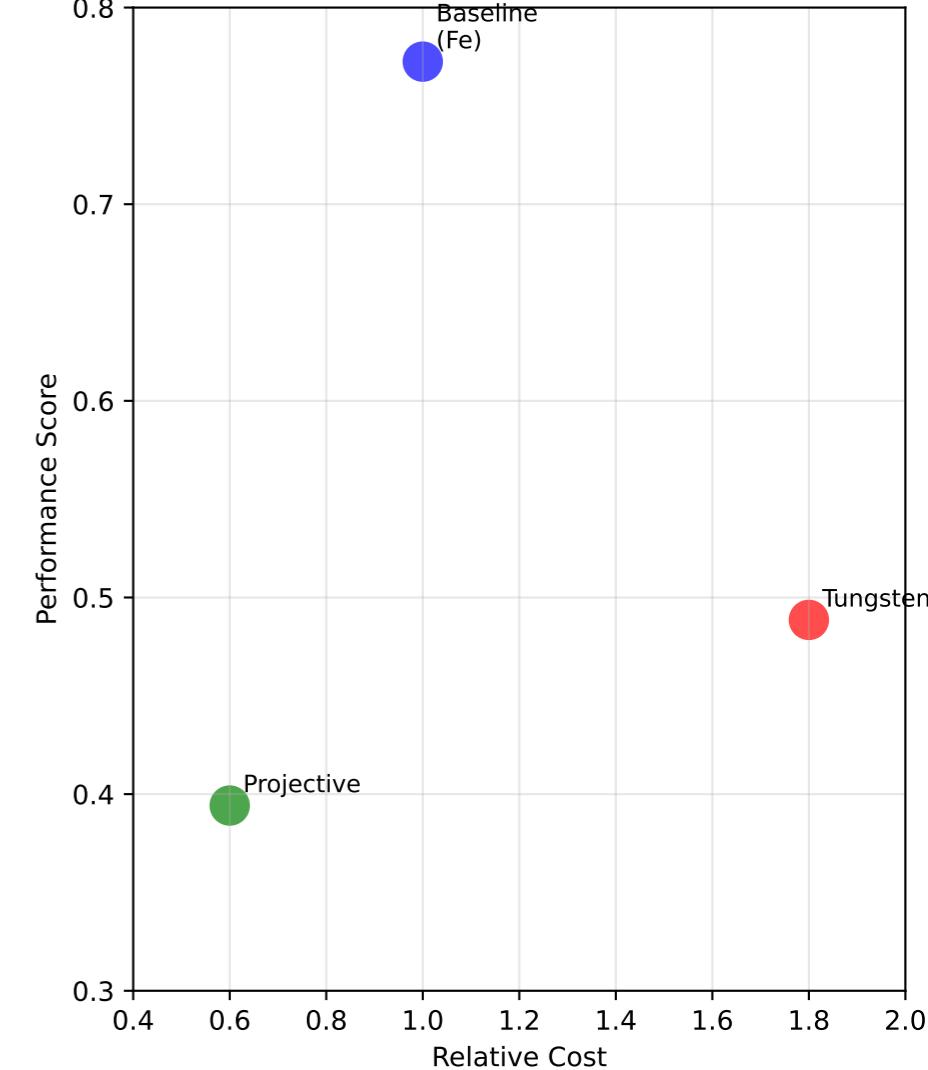
Performance Radar Chart



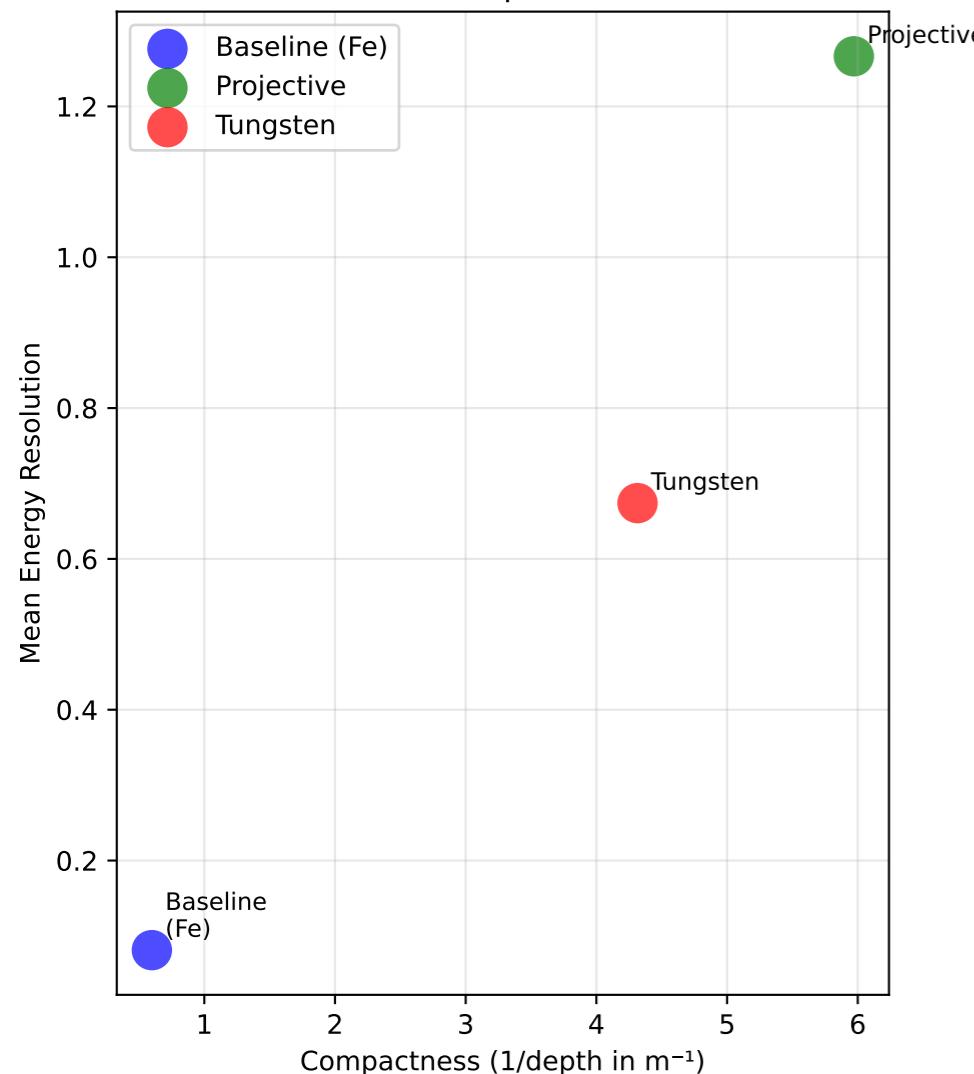
Energy Resolution vs Beam Energy



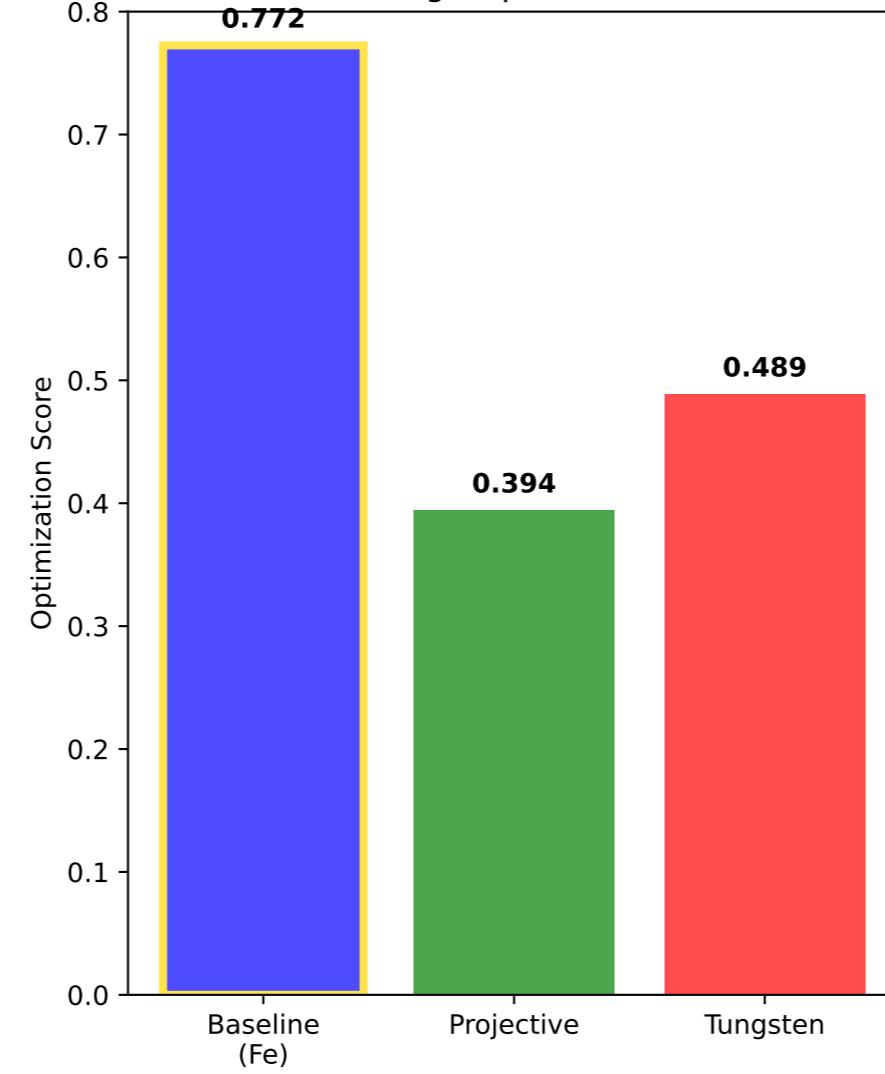
Cost-Benefit Analysis



Resolution vs Compactness Trade-off



Overall Design Optimization Scores



DESIGN SELECTION RATIONALE

Optimal Configuration: Baseline (Fe)
Optimization Score: 0.772

Key Findings:

- Baseline (Fe): Best overall performance
 - Excellent energy resolution (0.081)
 - Good linearity (0.833)
 - Mature technology, cost-effective
- Projective: Most compact design
 - Poor energy resolution (1.266)
 - Insufficient depth for shower containment
 - Good for space-constrained applications
- Tungsten: Moderate performance
 - Intermediate resolution (0.674)
 - Compact but expensive
 - Complex manufacturing

Recommendation: Baseline (Fe) configuration provides optimal balance of performance, cost, and technical maturity.