Scintillation Detectors for MUSE

# Design Requirements

* Average detection efficiency ε > 0.95.
* Average time resolution, σ < 70 ps.

# Quality Assurance

* **BC-404 Scintillators** are inspected for damages, inclusions, and refraction index inhomogeneities
* **Hamamatsu R9779 PMTs** are tested for signal integrity, signal-to-noise ratio, gain, HV requirements, and magnetic field shielding
* **Counter Pre-Check:** Counters are inspected for void-free glued PMT-to-scintillator transition and light tightness, set to final gain-balanced HVs
* **Counter Full-Check:** With Three-Bar-Method position dependent and overall time resolutions, effective speed of light, left and right attenuation lengths (BAL and TAL) are programmatically analyzed and automatically stored
* **Database:** All acquired information is stored and retraceable