

**CE3+ ACTIVATED MIXED HALIDE ELPASOLITES:
NOVEL HIGH LIGHT OUTPUT AND HIGH ENERGY RESOLUTION SCINTILLATORS**

ABSTRACT

A scintillator composition is described, including a matrix material and an activator. The matrix material includes at least one alkali metal or thallium; at least one alkali metal, different than the previously selected alkali metal; at least one lanthanides; and at least two halogens. The activator is cerium. Further, radiation detectors, which include the scintillator composition and methods for detecting high-energy radiation are also described and form part of this disclosure.

Figure 1