

Abstract Submitted  
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**Sol-gel glass nanocomposite scintillator** DONGDONG JIA, JENNA GIRARDI, Lock Haven University of Pennsylvania — Nanocomposite  $\text{LaBr}_3:\text{Ce}^{3+}$  and  $\text{SiO}_2$  are prepared by using sol-gel method. Concentration of  $\text{LaBr}_3:\text{Ce}^{3+}$  embedded in  $\text{SiO}_2$  can be as high as 95%. But the sol-gel glass only is transparent up to a concentration of 50%. Emission and excitation spectra are measured.  $\text{Ce}^{3+}$  emission is strong and is found at near UV region. This sol-gel nanocomposite material is good for scintillators application.

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