Sol-gel glass nanocomposite scintillator DONGDONG JIA, JENNA GIRARDI, Lock Haven University of Pennsylvania — Nanocomposite LaBr$_3$:Ce$^{3+}$ and SiO$_2$ are prepared by using sol-gel method. Concentration of LaBr$_3$:Ce$^{3+}$ embedded in 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. 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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