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## P2.16: Development of Red/Infra-red Emitting Scintillators for an Alpha Dust Monitor

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We have development alpha dust monitor with a red or infrared emitting scintillators, and the scintillation properties were investigated for  $\text{Ce:Y}_{3-x}(\text{Mg}_x\text{Al}_{5-2x}\text{Si}_x)\text{O}_{12}$  ( $x=0.0, 0.5, 2.0$ ) crystals were grown by the micro-pulling-down method. Ce-doped  $\text{Y}_{3-x}(\text{Mg}_x\text{Al}_{5-2x}\text{Si}_x)\text{O}_{12}$  had an emission wavelength of 620 nm, and the red-shift of emission bands was observed for Mg and Si-admixed samples due to changing lattice constants compared to the Mg and Si free sample.

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