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## Wet-Chemical Synthesis and Study of Luminescence in Some $\text{Eu}^{2+}$ Activated $\text{AEMgF}_4$ Hosts

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Synthesis of alkaline-earth complex fluoride such as  $\text{BaMgF}_4$  (BMF),  $\text{SrMgF}_4$  (SMF), and  $\text{CaMgF}_4$  (CMF) was attempted through a simple wet-chemical method. All these fluorides offer wide range of applications in optical and spectroscopic studies. Conventional ways of preparing phosphors constituting these compounds are very laborious and hazardous. Hence, we have decided to investigate much simpler, less expensive way of synthesizing these phosphors. During the course of exploring different ways, this study has discussed some XRD results together with the impact of synthesis routes on their luminescence spectra.

**Keywords:** precipitation, synthesis, XRD, photoluminescence, thermoluminescence, phosphors.