

**LUMINESCENCE OF Me^{3+} IN
 $Sr_2(Gd,La)(Al,Ga)O_5$**

**A. A. SETLUR AND A. M. SRIVASTAVA
GE CORPORATE RESEARCH AND
DEVELOPMENT
NISKAYUNA, NEW YORK 12309**

We will present results on the luminescence of various trivalent ions in $Sr_2(Gd,La)(Al,Ga)O_5$. $Sr_2(Gd,La)(Al,Ga)O_5$ has the Cs_3CoCl_5 structure where one-half of the Sr^{2+} ions are randomly distributed with the trivalent rare earth ions. The rare earth site is eight coordinated. The other half of the Sr^{2+} ions occupies a ten-coordinated site. One of the oxygens is not coordinated to the Al^{3+}/Ga^{3+} ions of the host lattice but is coordinated only to the larger Sr/Gd ions. The influence of this structural peculiarity on the luminescence on Pr^{3+} , Eu^{3+} , Tb^{3+} , and Bi^{3+} ions is the subject of our discussions.