LASER SPECTROSCOPY OF EUROPIUM MONOFLUORIDE

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A preliminary investigation into the spectroscopic properties of europium monofluoride has commenced. At present, high resolution spectra have been obtained for a series of transitions in the 570 - 670 nm region. Preliminary assignments indicate that these electronic transitions are originating in one of two low-lying electronic states spaced by approximately 1400 cm^{-1}. Comparison with previous work indicates that these states, assigned as the ground and first excited states, are both arising from same electron configuration of the europium ion ($Eu^{+}(f^{7}s)$). Results and analysis of the ongoing investigation will be presented and discussed in terms of the electron configurations of the various observed states.