

Conclusion

Among the conclusive points is the formation of samples with high crystallinity in single phase, with confirmation of presence of all elements expected to be incorporated.

Some of the samples show presence of rod structures along with aggregated grains, which is interesting.

The intensity of emission peaks in all the samples increase with increase in the Erbium content. Minor shifts are seen in the spectral position for Bismuth Oxide and Lanthanum Molybdate samples, which are attributed to Stark splitting due to the crystal field. The relative intensities of the peaks also vary with Erbium content in case of Lanthanum Molybdate samples.

The efficiency of the DSSC's fabricated using the phosphor samples along with TiO_2 show appreciable increase compared to the ones fabricated using only TiO_2 .