SSNN 49P **CHARACTERIZATION THE NANOCOMPOSITES OF COORDINATION COMPOUNDS OF Eu3+ IONS/PEPC BY TGA, DSC, TEM AND SEM.**

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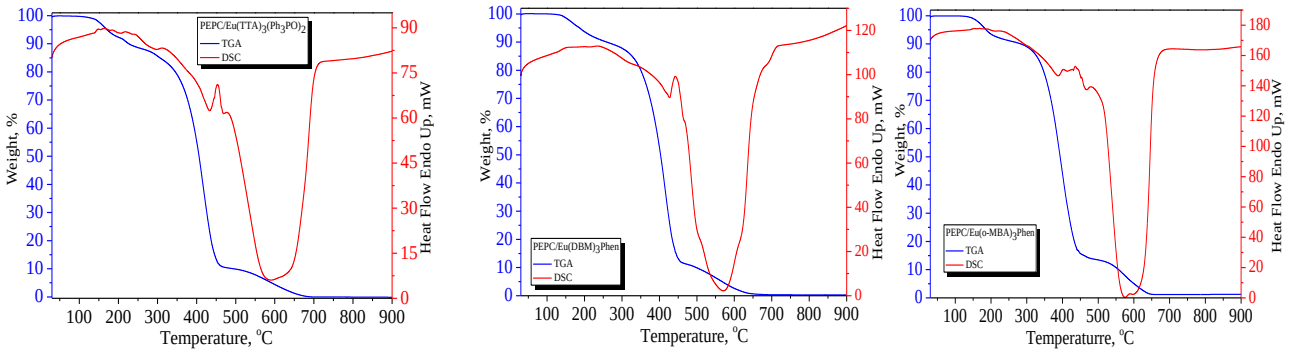
Coordination compounds of Europium(III) are excellent materials for a new generation of light emitting devices with high efficiency, easy color tuning, temperature insensitivity, and high stability. Compounds *Eu(TTA)$_3$(Ph$_3$PO)$_2$*, *Eu(DBM)$_3$Phen* and *Eu(o-MBA)$_3$Phen* and polymer nanocomposites (NCs) on their base were obtained. For coordonation of Eu^{3+} as active ligands were used TTA (thenoyltrifluoroacetonato ($C_8H_5F_3O_2S$)), DBM (dibenzoylmethane)and *o-MBA* – o-methyl benzoate and as neutral ligands *Ph$_3$PO* (triphenyl phosphine oxide) and *Phen* (1,10-phenanthroline). As polymer PEPC (poly-N-epoxypropyl carbazole) was used.

The NCs were obtained from the colloidal solutions of mentioned compounds and polimer by carefully ultrasonication. The deposition of layers were carried out by spin-coating method on quartz substrates and subsequent drying.

The particle sizes were determined by Transmission Electron Microscopy(TEM) and Scanning Electron Microscopy(SEM). On obtained samples thermogravimetric analysis (TGA) was studied. On Figure 1 are shown the TGA graphics of NCs.



a **b** **c**

Figure 1. The TGA graphics of NCs: *Eu(TTA)$_3$(Ph$_3$PO)$_2$/PEPC*(a), *Eu(DBM)$_3$Phen/PEPC*(b) and *Eu(o-MBA)$_3$Phen/PEPC*(c)