

CEEC-TRAC4

BOOK OF ABSTRACTS

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**4th Central and Eastern European Conference
on Thermal Analysis and Calorimetry
28-31 August 2017
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**4th Central and Eastern European Conference on
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CEEC-TAC4

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Preparation, characterization of SrMO₄:Eu@MCM-41 composites

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Mesoporous materials endowed with photoluminescence property upon functionalization are of potential in the drug storage/release fields [1,2]. The design and preparation of non-toxic, stable systems with luminescence property have key role in realizing this application.

In this study, we aimed at obtaining luminescent SrMO₄:Eu@MCM-41 composites via sol-gel process. The obtained composites were characterized via XRD, FT-IR, SEM, N₂ adsorption/desorption analysis and PL spectra. In order to determine the optimum synthesis conditions thermal analysis studies of the initial reactants was made via TG/DTA combined system. Starting reactants decompose upto 918 °C upon dividing into volatile compounds and at this temperature a mixture of metal oxides (SrO, MoO₃, Eu₂O₃) form.

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