Type: poster presentation

## Combining Improved Thermoluminescence (TL) Dating and Nuclear Techniques for The Study of Ancient Sites

Wednesday 27 August 2025 18:42 (12 minutes)

The report presents an overview on the combination of improved thermoluminescence (TL) dating and nuclear techniques - such as neutron activation analysis (NAA) and isotope ratio analysis - for the study of ancient sites. Applications of these techniques for ancient architectures built by bricks, stones and their challenging issues. Our recent improved thermoluminescence (imTL) technique is introduced in this study as an optimal solution for dating of ancient architectures having heterogeneous, multilayered and overlapped structures with highly reliable results compared to traditional TL methods. Besides, neutron activation analysis (NAA) and isotope ratio analysis are helpful for our study of ancient sites. We also briefly introduce in this study the important role of The Oc Eo-Ba The relic, the White Stone Citadel archaeological site and the Nguom rock shelter in the historical and archaeological aspects, based on which our improved TL dating technique can be applied.

## Research field of your presentation

Experimental Low-energy nuclear physics

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**Session Classification:** Young Scietist Session 5 (Poster)