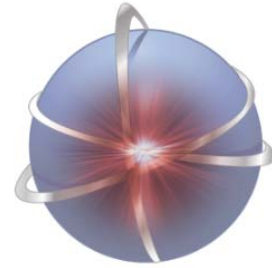


# **TESNAT 2017**

**3rd International Conference on  
Theoretical and Experimental Studies in  
Nuclear Applications and Technology**

10-12 May 2017 ukurova University, Adana, Turkey

**3<sup>rd</sup> International Conference on  
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Technology**



***Abstract Book***

**Editors**

Eyyup TEL, Abdullah AYDIN, İsmail Hakkı SARPÜN

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# **Abstract Book**

## **Editors**

**Eyyup TEL  
Abdullah AYDIN  
İsmail Hakkı SARPÜN**

Dear Colleagues,

Welcome to the 3<sup>rd</sup> International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology (TESNAT 2017). This conference is the third step of the TESNAT Conference series. TESNAT 2015 was held in Osmaniye Korkut Ata University, Osmaniye and TESNAT 2016 was held in Mustafa Kemal University, Hatay. The world of nuclear physics is an exciting area in which to work, and we'll continue to meet and bring inspired people together in conference like this, to ensure TESNAT remains at the cutting edge.

We intend in this conference to discuss and compare all applicable methods as are being applied at present in nuclear physics. The problems faced in these fields at present are focused in the development of new methods and in the improving of existing techniques to achieve an understanding of existing experimental data and in predicting with high reliability new properties and processes. We propose this conference as a mean to bring together all these related communities with the goal of creating an enriching dialog across the disciplines. The conference will give an overview on the theoretical and experimental challenges in nuclear physics and applications.

We'd like to thank each of you for attending our conference and bringing your expertise to our gathering. You are truly our greatest asset today and tomorrow, and we could not accomplish what we do without your support and leadership.

**TESNAT 2017 Organization Committee**

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**LU012**

## **Obtaining pure quartz from soil samples and calculation of its kinetic parameters using isothermal decay method**

**YUKSEL M.**

*Çukurova University, Physics Department, Adana, Turkey*

The second most abundant mineral is quartz after feldspars and approximately 12% of the mass of the Earth's crust is made of quartz. From this reason, it is possible to obtain quartz from soil samples. Quartz samples are used in many studies such as luminescence dating, retrospective dosimetry applications and etc. In this study, soil samples were collected from Seyhan Dam Lake terraces near Çukurova University Campus and then the quartz grains were obtained from soil samples using some separation methods. Whether the obtained samples were quartz or not were tested by OSL measurements. The coarse grain quartz (90-140  $\mu\text{m}$ ) samples were used TL measurements in order to determine luminescent-kinetic parameters by isothermal decay method (IDM) and minimum detectable dose (MDD) of quartz samples.