COMPARISON OF TWO PULSE PILE-UP CORRECTION METHODS

Salih Mustafa Karabıdak , Selim Kaya
smkarabidak@gumushane.edu.tr

For counting systems, pulse pile-up pulse is important for the accuracy of the analysis. Spectrometric system manufacturers have developed pile-up reject circuits to prevent pulses pile-up. It can be seen from the studies in the literature that these circuits cannot completely prevent pulses pile-up. Within these studies, there are several correction methods based on statistical mathematics for pulses pile-up. These methods are time consuming and involve a number of complex calculations. For this reason, method that is user-friendly, simple and makes within a short time this correction is needed. Such a method has been developed for this study. This method has been applied to spectrometer measurements. As a result, it has been found that the method provides fast, practical and the desired pulse pile-up correction. In addition, the proposed method is compared with a method available in the literature. Thus, the strength and weaknesses of the proposed method have been determined.

COMPARISON OF BACKGROUND RADIATION LEVELS BETWEEN ANTALYA AND KARAMAN IN TURKEY

Canel Eke, Osman Ağar
ceke@akdeniz.edu.tr

The purpose of this study is to compare background radiation levels between Antalya and Karaman in Turkey. To determine background levels of two different regions, high purity germanium (HpGe) detector was used for measurement in Antalya and NaI(Tl) detector for measurement in Karaman. The counts per minute of natural radionuclides were compared.