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Vanadium and antimony compositions in some fertilizers commonly-used in Saudi Arabia

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Abstract

Information on toxic trace elements in fertilizers is needed to assess their potential adverse effects on plants and human health. In this study, contamination by vanadium (V) and antimony (Sb) is evaluated for some commercial fertilizers collected from the Saudi market. The samples were elementally analyzed using Neutron Activation Analysis (NAA) technique. The vanadium and antimony concentrations obtained for the fertilizers tested were generally low. Four fertilizer samples, out of 24, have shown high concentrations of vanadium. The potential adverse effects of these four fertilizers and the possible sources of vanadium contamination are discussed.

Biography

Okla Al-Horayess received his PhD in physics in 1997 from the University of Leicester, UK. He is currently the assistant director of the National Center of Radioactive Waste Management, KACST, Saudi Arabia.