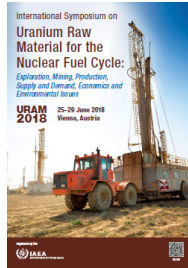


International Symposium on Uranium Raw Material for the Nuclear Fuel Cycle: Exploration, Mining, Production, Supply and Demand, Economics and Environmental Issues (URAM-2018)



Contribution ID: 64

Type: ORAL

Black- Sand in Sudan for economics thorium fuel cycles

Thursday, 28 June 2018 16:20 (20 minutes)

Sudan mining department is conducting project research involving the use of the thorium fuel cycle by tracing Alpha- radiation emitting from isotopes of uranium and thorium were found on the surface marine sediment on the Sudanese coast of the Red Sea at Port Sudan localities through the use of radio chemical procedure and Alpha particle spectrometry that activity concentration of ^{232}U , ^{234}U , ^{238}U , ^{232}Th , ^{230}Th , ^{228}Th were measured so based on that findings the national council for radiological and nuclear control in Sudan conducting a project research involving the use of the thorium fuel cycle to future nuclear industry in Sudan.

The works on thorium cycle were conducted for both studying and investigating aspects of development of nuclear power and the methods of involving thorium into it as an additional resource (long-term outlook), and studying those useful qualities which can be introduced by the use of thorium in operating reactors (short-term outlook and medium-term aspect).

This paper considers and evaluates the potential benefits that the thorium fuel cycle may offer as an alternative to the existing uranium fuel cycle.

Country or International Organization

Sudan

Primary author: Dr HAMED, Abdalla (Sudan University for Science & Technology)

Presenter: Dr HAMED, Abdalla (Sudan University for Science & Technology)

Session Classification: Thorium and associated resources

Track Classification: Track 9. Thorium and associated resources —international and national initiatives