Occupational Exposure for Working Staff in the Egyptian Ceramics Industry

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NON – NUCLEAR industries use raw materials containing significant levels of radionuclides; the processing of these materials can expose workers and people living and working near such sites to radiation levels well above the natural background. Zircon sands processing, falls within this category.
Zircon sands are mainly made of zirconium silicate ($ZrSiO_4$) or baddeleyite (ZrO_2) with natural radioactivity content exceeds by one or two orders of magnitude the one present on average in the earth's crust. This is due to the fact that, during zircon crystals formation owing to magma masses cooling, uranium and thorium atoms get trapped into the crystal structure.
This study deals with the determination of occupational exposure due to natural ionizing radiation in some ceramic companies involved in industrial materials processing and storage in the surrounding.

Key Words: **Occupational exposure, Zircon Silicate and dust concentration**