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Potential of activated carbon adsorption processes for the remediation of nuclear effluents: a recent literature

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ABSTRACT

Stepping into the new globalized era, a huge revolution has been undergone by the nuclear power industries. From a source of energy, today nuclear power has demonstrated a wide variety of applications, almost in every part of the world. Lately, the development has received criticisms due to huge generation of radioactive residues, which presents a threat to the environment. Thus, the aim of this paper is to highlight the fundamental characteristics and environmental implications of the nuclear waste compound. Apart from that, historical incidents surrounding the nuclear power-generating plants were clarified, and strategies and policies that will lead to a more sustainable development of the industries were discussed. Moreover, an up-to-date literature on activated carbon adsorption process as a treatment measure for uranium and radon was outlined.

Keywords: Activated carbon; Adsorption; Nuclear; Radon; Uranium

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