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:البريد الإلكتروني : Akheliwi@kacst.edu.sa

ABSTRACT

Nuclear techniques in today's world have diverse applications that led to an establishment of many nuclear programs in most of world's countries. The different applications of radiation in agriculture, industry, medicine, scientific research, and measurements are everywhere. Radiation protection plays an important and effective role due to the constant and large growing of different uses of atomic energy in all aspects of life. It is important to have structure for radiation protection and specialized monitoring authority to issue laws and regulations. Technically, the institute of atomic energy research (IAER) at King Abdulaziz City for Science and Technology (KACST) is in charge of radiation protection in Saudi Arabia along with other governmental sectors to examine the import and export orders of radioactive materials, to monitor plants dealing with radioactive materials. This paper discusses the status of radiation protection in Saudi Arabia beside development of usage of radioactive

materials, how to get rid of them, plants that dealing with radioactive materials, instrumentation containing radioactive sources, different applications of radioactive sources in the Kingdom, radiation accidents, necessity of establishment constitution for radiation protection, and the role that KACST could play along with other governmental sectors in this regard.

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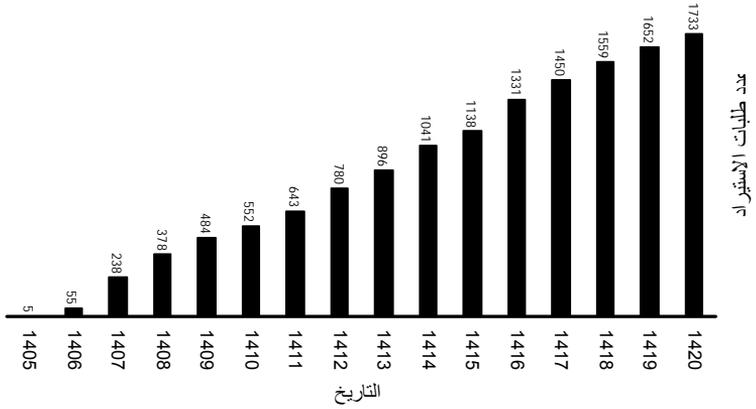
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$^{57}\text{Co}, ^{252}\text{Cf}, ^{109}\text{Cd}, ^{243}\text{Am}, ^{241}\text{Am}, ^{60}\text{Co}, ^{137}\text{Cs}, ^{55}\text{Fe}, ^3\text{H}, ^{125}\text{I}, ^{192}\text{Ir}, ^{85}\text{Kr}, ^{147}\text{Pm}, ^{238}\text{Pu}, ^{226}\text{Ra}, ^{228}\text{Th}, ^{238}\text{U}, ^{232}\text{Th}, ^{63}\text{Ni}, ^{210}\text{Po}$	
$^{241}\text{Am}, ^{198}\text{Au}, ^{133}\text{Ba}, ^{14}\text{C}, ^{45}\text{Ca}, ^{109}\text{Cd}, ^{192}\text{Ir}, ^{57}\text{Co}, ^{58}\text{Co}, ^{51}\text{Cr}, ^{137}\text{Cs}, ^{55}\text{Fe}, ^{59}\text{Fe}, ^{67}\text{Ga}, ^{148}\text{Gd}, ^{153}\text{Gd}, ^3\text{H}, ^{203}\text{Hg}, ^{123}\text{I}, ^{125}\text{I}, ^{131}\text{I}, ^{111}\text{In}, ^{85}\text{Kr}, ^{22}\text{Na}, ^{32}\text{P}, ^{33}\text{P}, ^{226}\text{Ra}, ^{35}\text{S}, ^{75}\text{Se}, ^{79}\text{Se}, ^{89}\text{Sr}, ^{90}\text{Sr}, ^{99m}\text{Tc}, ^{201}\text{Ti}, ^{204}\text{Ti}, ^{133m}\text{Xe}, ^{88}\text{Y}$	
$^{241}\text{Am}, ^{243}\text{Am}, ^{133}\text{Ba}, ^{207}\text{Bi}, ^{14}\text{C}, ^{45}\text{Ca}, ^{109}\text{Cd}, ^{252}\text{Cf}, ^{192}\text{Ir}, ^{36}\text{Cl}, ^{57}\text{Co}, ^{58}\text{Co}, ^{60}\text{Co}, ^{51}\text{Cr}, ^{137}\text{Cs}, ^{152}\text{Eu}, ^{154}\text{Eu}, ^{155}\text{Eu}, ^{55}\text{Fe}, ^{67}\text{Ga}, ^{148}\text{Gd}, ^3\text{H}, ^{203}\text{Hg}, ^{166}\text{Ho}, ^{125}\text{I}, ^{131}\text{I}, ^{192}\text{Ir}, ^{28}\text{Mg}, ^{54}\text{Mn}, ^{22}\text{Na}, ^{63}\text{Ni}, ^{32}\text{P}, ^{33}\text{P}, ^{210}\text{Pb}, ^{147}\text{Pm}, ^{236}\text{Pu}, ^{238}\text{Pu}, ^{239}\text{Pu}, ^{241}\text{Pu}, ^{242}\text{Pu}, ^{226}\text{Ra}, ^{35}\text{S}, ^{75}\text{Se}, ^{113}\text{Sn}, ^{90}\text{Sr}, ^{182}\text{Ta}, ^{99m}\text{Tc}, ^{228}\text{Th}, ^{229}\text{Th}, ^{230}\text{Th}, ^{201}\text{Ti}, ^{204}\text{Ti}, ^{234}\text{U}, ^{238}\text{U}, ^{240}\text{U}, ^{185}\text{W}, ^{133m}\text{Xe}, ^{88}\text{Y}, ^{65}\text{Zn}$	

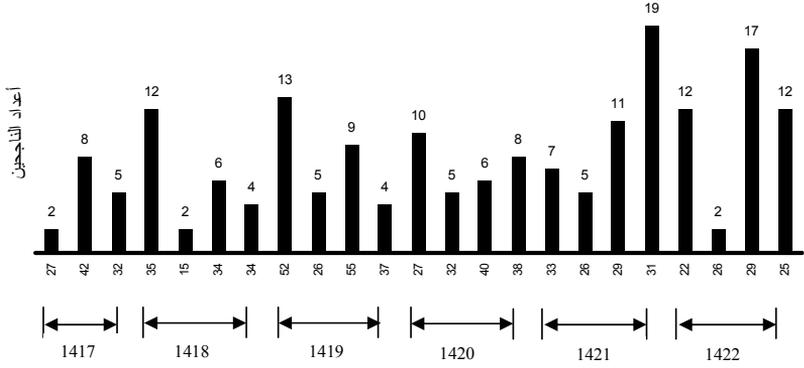
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Radiation Safety Officers



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(1) Basis Safety Series 115-1, 1994, "International basic safety standards for protection against ionizing radiation and for the safety of radiation sources", IAEA, Vienna.

(2) Basis Safety Series 115, 1996, "International basic safety standards for protection against ionizing radiation and for the safety of radiation sources", IAEA, Vienna.

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