



Gamma Radiation: Gamma radiation is a high-energy electromagnetic radiation that can penetrate deep into the environment. It is produced by the decay of radioactive isotopes and can cause ionization of atoms and molecules, leading to the formation of free radicals and other reactive species. Gamma radiation is a major component of natural background radiation and is also used in medical and industrial applications.

Beta Radiation: Beta radiation consists of high-speed electrons or positrons emitted from the nucleus of a radioactive atom. It has a lower penetration power than gamma radiation and is stopped by a few millimeters of plastic or aluminum. Beta radiation is commonly used in medical treatments and as a power source in space exploration.

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X-Ray Radiation: X-ray radiation is a form of electromagnetic radiation with a wavelength shorter than that of visible light. It is produced by the acceleration of charged particles, such as electrons, and is used in medical imaging and industrial radiography. X-ray radiation can cause ionization and damage to biological tissues.

Nuclear Radiation: Nuclear radiation refers to the ionizing radiation emitted from the nucleus of a radioactive atom. It includes alpha particles, beta particles, and gamma rays. Nuclear radiation is a major concern in the context of nuclear power and nuclear weapons.

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