URANIUM-238

238U

Although only about 1% of uranium in the world is uranium-238, it is used as the main fuel source for nuclear power stations. It needs to be handled with extreme caution due to its high-level radioactivity. Even small amounts of uranium-238 can cause severe health problems if inhaled or ingested.

EMISSION TYPE: ALPHA, GAMMA

OCURRENCE: NATURAL

USES: NUCLEAR POWER

ENVIRONMENTAL IMPACT:

PROTONS: 92

NEUTRONS: 146

HALF LIFE: 4.5 BILLION YEARS

PRICE: $1,293,000

DANGER RATING: 

XENON-133

133Xe

Xenon-133 is a gas that can be used in medical applications to treat medical conditions such as tumors and certain blood disorders.

EMISSION TYPE: BETA, GAMMA

OCURRENCE: MAN-MADE, GAS

USES: MEDICINE

ENVIRONMENTAL IMPACT: 

PROTONS: 54

NEUTRONS: 79

HALF LIFE: 5 DAYS

PRICE: $1,293,000

DANGER RATING: 

YTTRIUM-90

90Y

Widely used in cancer treatment, particularly leukemias or lymphomas.

EMISSION TYPE: BETA

OCURRENCE: MAN-MADE, SOLID

USES: MEDICINE

ENVIRONMENTAL IMPACT: 

PROTONS: 39

NEUTRONS: 51

HALF LIFE: 64 HOURS

PRICE: $1,293,000

DANGER RATING: 