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(54) **Title**: INORGANIC NANOPARTICLES OF HIGH DENSITY TO DESTROY CELLS IN-VIVO

(57) **Abstract**: The present application relates to novel excitable particles which can be used in the health sector. It more particularly relates to particles which can generate electrons and/or high energy photon when excited by ionizing radiations such as X-Rays, γ-Rays, radioactive isotope and/or electron beams, and to the uses thereof in health, in particular in human health. The inventive particles are made of an inorganic material comprising oxygen, in particular an oxide, said material having an adequate density, and can be activated *in vitro*, *ex vivo*, or *in vivo*, by controllable external excitation, in order to disturb, alter or destroy target cells, tissues or organs. The invention also relates to methods for the production of said particles, and to pharmaceutical or medical device compositions containing same.