

Non-Linear Compact Proton Synchrotrons to Improve Human Cancer Cells and Tissues Treatments and Diagnostics through Particle Therapy Accelerators with Monochromatic Microbeams

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Short Communication



The most challenging issues facing global society are non-linear compact proton synchrotrons to improve human cancer cells and tissues treatments and diagnostics through particle therapy accelerators with monochromatic microbeams^[1-74]. The advancement of nanoscience, nanomedicine and nanotechnology is expected to play an important role for the synchrotron radiation therapy of human cancer cells and tissues^[1-74]. Recent efforts have been made in the design of novel anti-cancer Nano drugs for addressing oncology issues. A variety of anti-cancer Nano drugs have been employed in many catalytic processes. However, the clinical, biological, medical, medicinal, pharmaceutical and biochemical applications of anti-cancer Nano drugs in non-linear compact proton synchrotrons to improve human cancer cells and tissues treatments and diagnostics through particle therapy accelerators with monochromatic microbeams is not viable due to the availability and cost of producing them. Therefore, development of simple and economical methodologies for the design of catalytic anti-cancer Nano drugs is much awaited. Nano-architecture is considered to be an efficient route for the design of novel anti-cancer Nano drugs, which provides high efficiency, longer durability and reusability.

As a typical kind of human cancer cells and tissues, lung cancer has been the subject of interest because of its unique properties, including anti-cancer Nano drugs storage capacity and anti-cancer Nano drugs conductivity. Anti-cancer Nano drugs has been widely used in several catalytic formulations, in non-linear compact proton synchrotrons to improve human

cancer cells and tissues treatments and diagnostics through particle therapy accelerators with monochromatic microbeams, as sensor, in UV shielding and luminescence. Anti-cancer Nano drugs has also been used as important abrasive nanomaterials for clinical-biological-medical-medicinal-pharmaceutical-biochemical of advanced integrated circuits and as Cadmium Oxide (CdO) nanoparticles sorbent for the removal of human cancer cells from human cancer tissues. For nanometer-sized anti-cancer drugs, the corresponding size-induced property changes, such as catalytic activity, blue shift of absorption spectra, lattice expansion and phase transformation, are obvious and cannot be ignored. For example, hierarchically mesostructured anti-cancer Nano drugs exhibits a photovoltaic response, while normal lung cancer does not show this response. Similarly, defect site enriched nano-structured lung cancer requires low activation energy for ethylbenzene dehydrogenation compared to conventional anti-cancer Nano drugs in non-linear compact proton synchrotrons to improve human cancer cells and tissues treatments and diagnostics through particle therapy accelerators with monochromatic microbeams.

Therefore, the design of functional anti-cancer Nano drugs with certain size, shape and surface structures by simple routes will be highly appreciated in environmentally benign processes. In the past few years, well-defined anti-cancer Nano drugs in various morphologies such as nanoparticles, nanorods, nanowires, nanotubes and nanopolyhedrons have been

successfully fabricated by a variety of methods. Recently, we have developed a simple route for the synthesis of defect site enriched nano-crystalline anti-cancer Nano drugs for the effective utilization of Cadmium Oxide (CdO) nanoparticles. Alireza Heidari and his co-workers at BioSpectroscopy Core Research Laboratory, Faculty of Chemistry, California South University (CSU), Irvine, California, USA, prepared monodispersed flowerlike Cadmium Oxide (CdO) nanoparticles microspheres for human cancer stem cells reforming by non-linear compact proton synchrotrons to improve human cancer cells and tissues treatments and diagnostics through particle therapy accelerators with monochromatic microbeams^[1-74]. This short communication will highlight some of the novel approaches in the design of functional anti-cancer Nano drugs by nano-architecture and their implication in non-linear compact proton synchrotrons to improve human cancer cells and tissues treatments and diagnostics through particle therapy accelerators with monochromatic microbeams^[1-74].

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