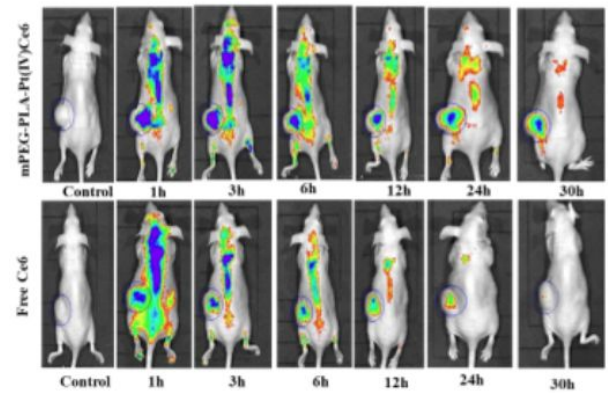


GRANTED**(IN515685)**

Polymeric amphiphilic nano-micelles for aerobic chemo-photodynamic therapy and method of preparing the same



NEED

Solid tumors often go undetected until they are advanced. What if a nano-micelle technology could target these tumors more effectively, combining chemotherapy and photodynamic therapy to improve treatment outcomes?

TECHNOLOGY OVERVIEW

This technology uses polymeric amphiphilic nano-micelles conjugated with Pt(IV)-azido and chlorin e6 (Ce6) for aerobic chemo-photodynamic therapy. It offers a targeted approach for treating solid tumors, with micelles sized 20–250 nm for enhanced drug delivery.

TECHNOLOGY KEY FEATURES

1) Nano-micelles for chemo-photodynamic therapy. 2) Conjugation with Pt(IV)-azido and Ce6 for tumor targeting. 3) Polymer options: mPEG, PLA, PCL, PLGA. 4) Micellar size of 20-250 nm for improved drug uptake. 5) Self-assembling micelles for easy administration.

[Read more here](#)

MARKET ANALYSIS

The global cancer nanomedicine market is expected to grow at a CAGR of 9.1% from 2023 to 2033, driven by advancements in targeted drug delivery systems and increasing cancer incidence. (Source: Market Research Future)

Target Industries

1) Pharmaceutical manufacturers focusing on cancer treatment innovations. 2) Nanotechnology developers creating advanced drug delivery systems. 3) Oncology clinics and hospitals implementing cutting-edge therapies for solid tumor treatment.

AT A GLANCE

- SDG 3 (Good Health and Well-Being), SDG 9 (Industry, Innovation, and Infrastructure)

Technology is available for licensing/ co-development.

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