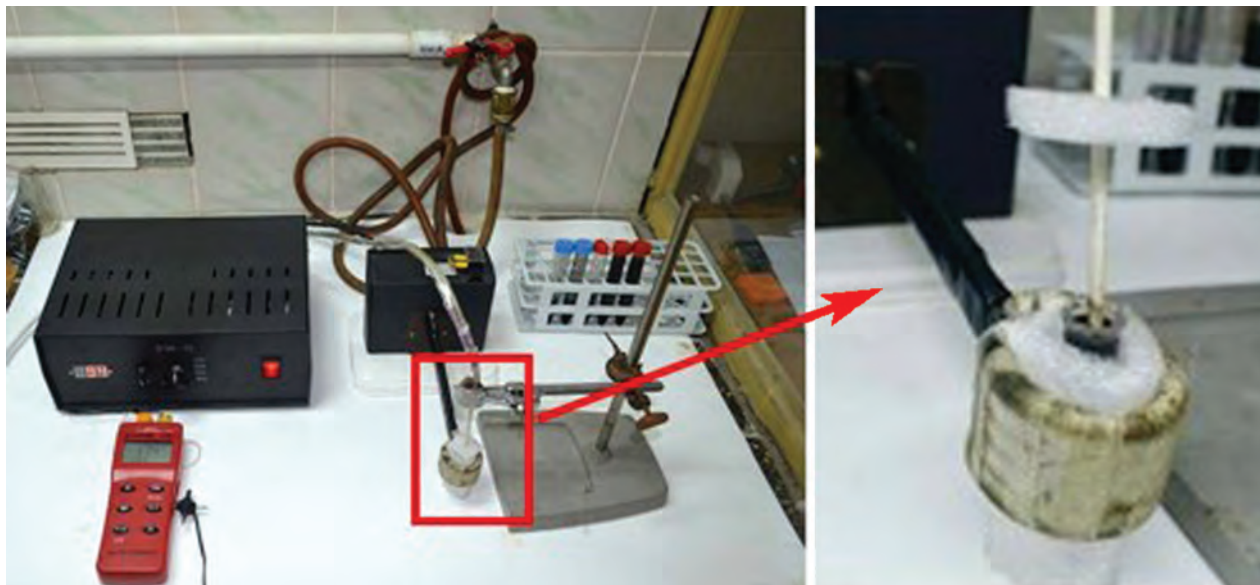


FERROMAGNETIC NANOPARTICLES FOR HYPERTHERMIA TREATMENT



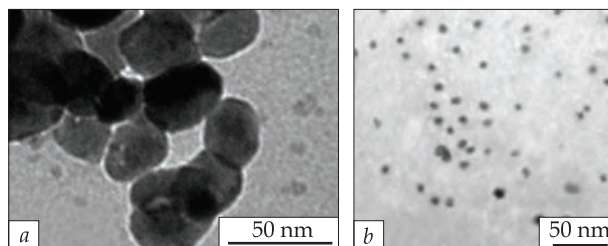
Stand for in vivo magnetic nano-hyperthermia

Areas of Application

The ferromagnetic nanoparticles can be used as magnetic inductors of nano-hyperthermia for controlled local heating of tumors

Specification

The ferromagnetic nanoparticles and magnetic fluids based on them show a high specific power loss (40 W/h) under the action of external AC magnetic fields in the frequency range of 100÷400 kHz



Manganite (a) and magnetite (b) nanoparticles

Stage of Development. Suggestions for Commercialization

IRL5, TRL5

The offering needs financial support for preclinical tests and further manufacture

IPR Protection

IPR1, IPR3

Advantages

The introduction of magnetic liquid (dispersion of ferromagnetic nanoparticles) into tumor and the further action of external alternating magnetic field on it leads to local heating up to a temperature of 42–45 °C that stops the growth of deep-seated tumors. The advantage of this offering is the particle composition and size, which provide the removal of waste products from the body in the natural way. Detailed information on analogs manufactured by pharmaceutical companies is not disclosed

Contact Information

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