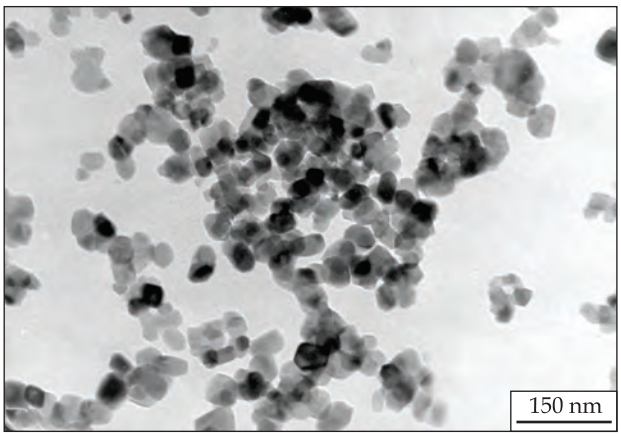
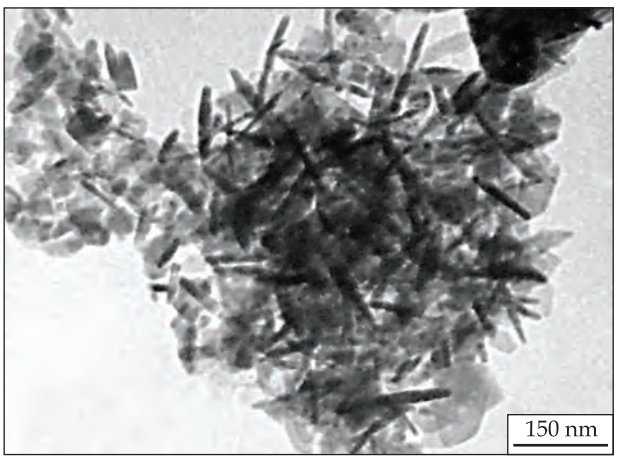
TECHNOLOGY FOR OBTAINING CERAMIC AND COMPOSITE NANOMATERIALS

Pilot line for nanopowder production



Nanopowder ZrO_2-3 mol % Y_2O_3



Nanopowder ZrO_2-3 mol % Y_2O_3 modified by F ions

Areas of Application

The technology is used to create ceramic and composite nanomaterials for biomedical implants, corrosion-resistant ceramics for mechanical engineering, chemical and food industries; as well as to manufacture medical markers and catalysts, polymer nanocomposites, fluorescent and X-ray contrast materials

Specification

Pre-determined chemical and phase composition.

Particle size, nm	$d = 10-30$
Specific surface area, m^2/g	120–20

Advantages

The technology is simple in terms of hardware solutions unlike the widespread analogs. The proposed technology enables to widen the range of powder chemical compositions without significant modifications of production

Stage of Development. Suggestions for Commercialization

IRL6, TRL7
Vending of license for the technology

IPR Protection

IPR1, IPR3

Contact Information

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