

CATALYSTS (GAS EMISSION PURIFICATION CATALYSTS)

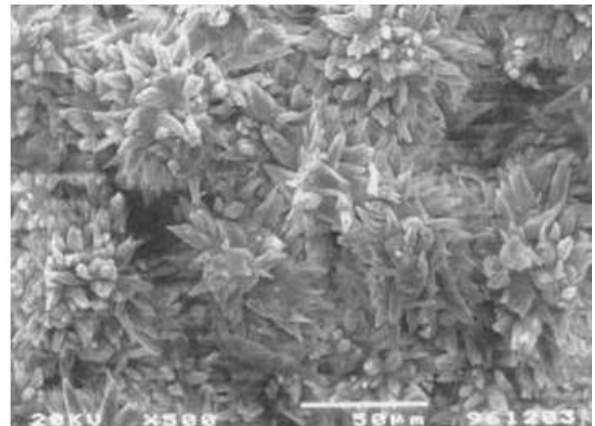
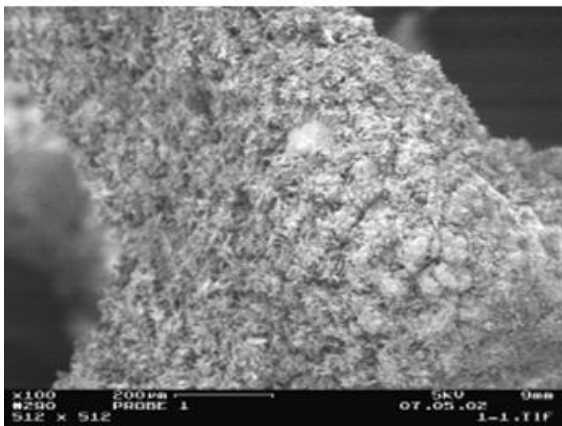
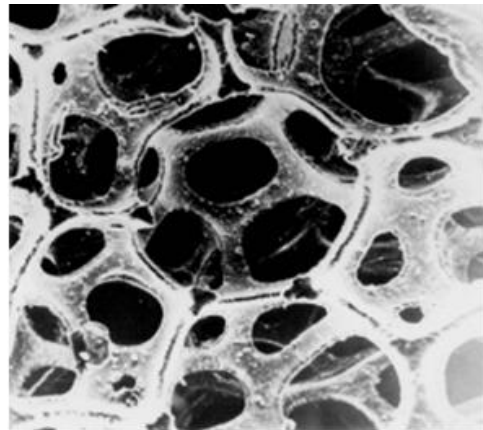
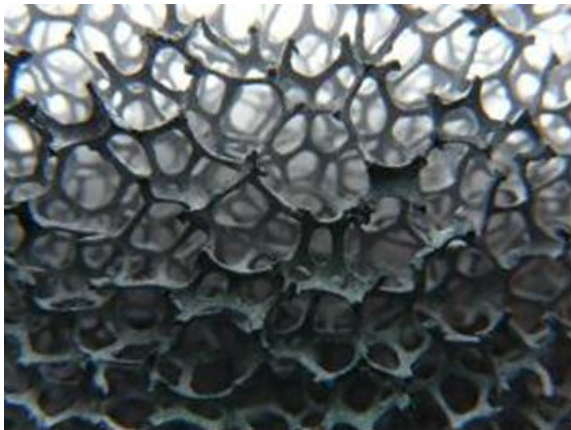
PURPOSE

Catalysts (catalytic blocks based on foam materials): intended for converting organic substances, carbon monoxide, ammonia, ozone, nitric oxides reduction. Cleaning efficiency: up to 99,9 %.

DESCRIPTION

Foam materials (metal foam) are a new class of materials of cellular structure having extremely low density in combination with high strength-to-weight ratio, surface, noise absorption, low hydraulic resistance. Foam materials can be produced from quite different basic materials: nickel, copper, iron, nichrome, aluminium, fechral, chromal, stainless steels and alloys, bronze, monel, cobalt, rhodium, platinum, gold, silver, carbon, porcelain, ceramic compounds (oxides, carbides, nitrides, borides, silicides).

Foam materials block and catalytic coating structure



MAIN CHARACTERISTICS

Operating temperature	20 – 600 °C*
Specific load	to 80000 hour ⁻¹
Permeability according to GOST 25283-82 (Ru)	10 ⁻⁸ -10 ⁻⁹ m ⁻²
Porosity	85-98%
Compression strength	20-100 MPa
Foam density	0,2-0,8 g/cm ³
Specific surface	1-50 m ² /g
The average cell size	0,5-4 mm
The degree of CO, C _x H _y O _z , NH ₃ , O ₃ ** neutralization	to 99,9%
Operating life	to 12000 hours
Block size	to 800x400x20 mm
Catalyst coat composition	Oxides, precious metals (Pt, Pd)

* - possible modification of up to 1100 ° C;

** - gases aren't contained chlorine, sulfur, phosphorus, fluorine, arsenic

THE ACHIEVED EFFICIENCY OF THE CATALYST DEACTIVATION *

Name of organic compound	Efficiency,%	Name of organic compound	Efficiency,%
Methanol	95 - 99	Phenol	99 - 99,9
Methylal	94 - 99	Xylol	99 - 99,9
Methyl formate	94 - 99	Acetophenone	99 - 99,9
Formaldehyde	94 - 98	Trikrezol	99 - 99,9
Formic acid	95 - 99	Benzpyrene	98,8
Acetaldehyde	95 - 99	Ammonia	99,2
Butyl acrylate	96 - 99,9	Toluol	99,8
Acrylonitrile	95 - 99,9	Aliphatic hydrocarbons (hexane)	99,5
Butanol	97 - 99,9	Ozone **	90-99

* - decomposition temperature is 310 - 490 °C

** - decomposition temperature is 20-50 °C

DESIGN AND DELIVERY ARE POSSIBLE ON REQUEST

1. Catalytic blocks for processing of wide spread light hydrocarbons of oil gas into motor fuel.
2. High-permeability catalysts of synthesis-gas production.
3. Photo- and plasma- catalytic blocks of cleaning and sterilization of air indoors.
4. Catalytic blocks of high-temperature catalytic neutralization of industrial gas emission, including gases containing dioxine and benzpyrene.