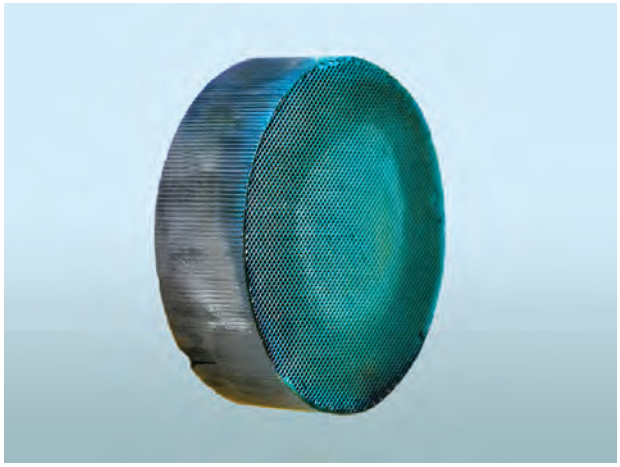
CATALYSTS FOR DEEP OXIDATION OF HYDROCARBONS



Catalyst appearance

Catalytic heat generators (CHG), combustion chamber of gas turbine

Areas of Application

This catalyst is to be used in chemical, petrochemical, and metallurgical industries in systems for catalytic purification of exhaust gases from hydrocarbon impurities and for combustion of gaseous hydrocarbon fuels in industrial and household catalytic heat generators

Specification

Fireproof ceramic honeycomb-structured blocks (cordierite, kaolin-aerosil) coated with catalyst; the content of active ingredient (manganese or cobalt oxides) is 3—7 wt.%; stable activity (100% CH_4 conversion is achieved at a temperatures of 650—750 °C) in deep oxidation reaction of methane during repeated cycles of in laboratory conditions; thermal stability of up to 900 °C

Advantages

In comparison with known counterparts this catalyst has a better adhesion of second carrier (Al_2O_3, ZrO_2) to the block material, a cheaper cost due to the absence of precious metals, a lower consumption of active ingredient due to its even distribution on the surface of secondary carrier, and a higher mechanical strength (up to 50 MPa) and fire resistance

Stage of Development. Suggestions for Commercialization

IRL3, TRL4
The product and recommendations on its use are provided upon request

IPR Protection

IPR1, IPR3

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