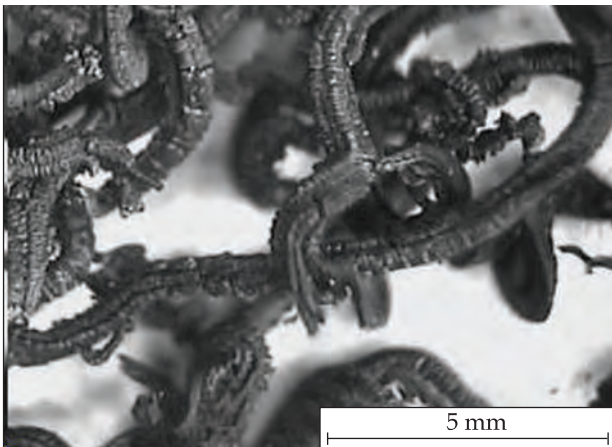


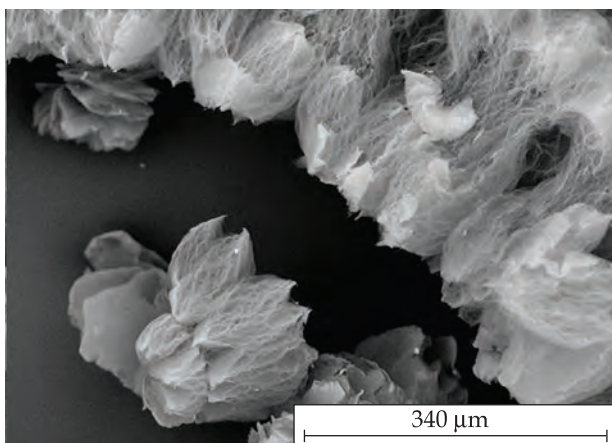
PLANT FOR SYNTHESIS OF THERMALLY EXPANDED GRAPHITE (TEG)



Visualization of the reactor for synthesis of thermally expanded graphite



Macrostructure of thermally expanded graphite



Microstructure of thermally expanded graphite

Areas of Application

The plant is designed for producing TEG that can be used in petrochemical industry as effective sorbent for liquidation of emergency spills of oil and oil products; in metallurgy, construction, and mechanical engineering for the manufacture of heat-resistant, sealing and leak-proofing materials; power engineering for the production of lithium-ion batteries, etc.

Specification

Continuously running reactor.

Natural gas consumption, m ³ /h	2
Operating temperature, °C	1000
Yield capacity, kg/h	35

Advantages

The plant is based on a new technology for obtaining high-quality TEG with a low density (up to 3 g/dm³) and minimum residues of sulfuric acid (water extract acidity of 6.5–7 pH). This technology enables reducing specific energy consumption, plant weight and dimensions

Stage of Development. Suggestions for Commercialization

IRL7, TRL8
Manufacture, delivery, warranty service, and staff training, upon request

IPR Protection

IPR1, IPR3

Contact Information

Yevhen V. Strativnov, Gas Institute of the NAS of Ukraine;
+38 044 456 44 71, +38 095 182 73 43, +38 097 306 18 46, +38 044 456 88 30, e-mail: estrativnov@gmail.com