**Description**
The technology is based on using Sibunit mesoporous carbon material, which has high adsorption capacity, chemical and thermal stability, mechanical strength, and high regenerability (10 to 45 reactivations depending on the nature of effluents). The soft conditions of sorbent reactivation allow (if necessary) recycling of the compounds extracted from sewage and process solutions.

**Technical appraisal and economic benefits**
- High degree of sewage treatment (up to 99% for the extracted material).
- High regenerability of the carbon sorbent (10 to 45 reactivations, depending on sewage composition) without weight loss.
- A factor of 5 reduction in the cost of the treatment process compared to available technologies.

**Application areas**
Treatment of waste and floatation waters from chemical and metallurgical industries containing aromatic organic contaminants (including benzene, phenol, xylene, toluene, nitrobenzene, aniline), soluble oxygenated organic compounds (derivatives of hydroxy-acetic acids, aldehydes, etc.) and nitrates.

**Development stage**
The treatment technology was tested on a laboratory scale on real sewage effluents containing nonferrous and rare metals and aniline.
Pilot production of Sibunit carbon sorbent was launched in Omsk.

**Patent situation**

**Commercial offers**
Customizing the technology to treat particular sewage effluents.
Delivery of the sorbent.

**Estimated cost**
To be negotiated

**Contacts**
Dr.Sc. Valentina I. Simagina, Head of Coordination Laboratory,