BIOCIDES FOR ANTI-FOULING COATING

Description
Biocide for antifouling coating with the matrix containing bitumen, colophony, and paraffin was developed. In order to increase the lifetime of the coating used according to its intended purpose, arsenic trioxide ($\text{As}_2\text{O}_3$) was introduced in addition to arsenic sulphides. It is planned to use arsenic oxide formed during sulphidizing roasting of gold-arsenic concentrates from a number of deposits, and from arsenic-containing wastes of tin and copper production.

Stand sea tests at the test ground demonstrated that an admixture of arsenic oxide is one of the determinant factors affecting the performance lifetime of arsenic-sulphide biocide.

Technical appraisal and economic benefits
- Stable high results within the maximal limits of operational lifetime of this type of antifouling coating;
- Possibility to use massifs of arsenic-containing tailings accumulated by present near metallurgical works, constituting a menace to the environment and ecology of these regions.

Application areas
Protection of hulls of sea ships, hydraulic installations, pipelines and reinforced concrete structures, functioning in bioaggressive environments, from fouling with various inhabitants of marine environments.

Development stage
The experimental sample was manufactured at the Institute of Solid State Chemistry and Mechanochemistry SB RAS.

Patent situation
Patent applied for but not yet granted.

Commercial offers
License agreement.

Estimated cost
Contractual price.

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