

Engineering Institute of Membrane Technologies

Scientific Report

2017

**I. 1. Scientific-Research Works Planned and Implemented in 2016 Funded by the State Budget of Georgia
(concerns independent scientific-research institutes of universities and LEPL Scientific-research institutes)**

№	Implemented work with the indication of scientific field and direction	Work Supervisor	Work Performers
1	2	3	4
1.	Structural and topographical research of polymer materials for the purpose of creating industrial composite membranes.	G. Bibileishvili M. Kezherashvili Z. Javashvili	Department of membrane process research and elaboration of nanotechnologies. Laboratory of physical and chemical analysis.
2.	Research of combined methods of ultra and nanofiltrative processes for partial demineralization of fresh water.	G. Bibileishvili	Department of membrane process research and elaboration of nanotechnologies.
3.	Research and exploitation of the membrane division process of partially and fully demineralized water (distilled) from drinking water. Engineering Sciences - Nano	G. Bibileishvili	– ” –

	and Membrane Technologies.		
4.	Research of the influence of inorganic salts on polymer membrane pore formation mechanism.	G. Bibileishvili N. Gogesashvili	Department of processing nanocomposite material – ” –
5.	The effect of molecular mass and concentration of organic pore formers on polymer membrane characteristics. Chemistry and materials science - processing of nanocomposite materials	G. Bibileishvili N. Gogesashvili	
6.	Sediments formed on the surface of membrane during laminar and hybrid (laminar-turbulent) movements in the pressure cell.	G. Bibileishvili L. Kuparadze	Department of membrane process research and elaboration of nanotechnologies.
7.	Some issues of cleansing the membrane sedimental surface. Mathematical sciences - geometry, theoretical problems of mechanics	G. Bibileishvili L. Kuparadze	Department of membrane process research and elaboration of nanotechnologies.
8.	Regulation of the weighted particles and chemical components in Tbilisi sea water by using the baromembranous processes. Chemistry and materials science - processing chemical protection problems of human and biosphere	M. Mamulashvili	Laboratory of physical and chemical analysis.

9	<p>Characterization and influence of polymer structural elements on certain properties of membrane.</p> <p>Determination of the sizes and comparative productivity of the membrane pores</p>	<p>G. Bibileishvili</p> <p>M. Kezherashvili</p>	<p>Department of membrane process research and elaboration of nanotechnologies.</p>
10	<p>Chemistry and materials science - processing of nanocomposite materials</p>	<p>G. Bibileishvili</p> <p>M. Kezherashvili</p>	<p>Laboratory of physical and chemical analysis.</p>