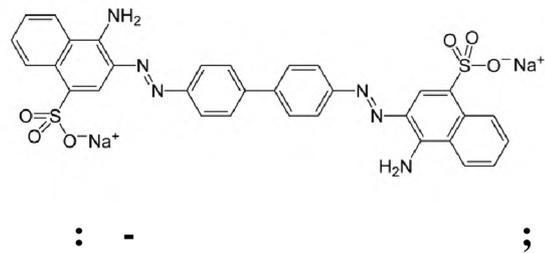
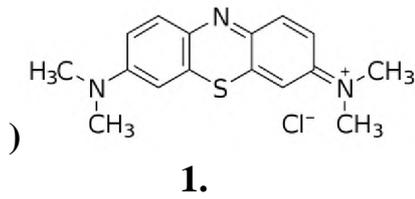


[4, 5].

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4,4'-(1- -4- -2-



(Zn-)

EDAX),
(Quanta 200 3D),
Ultima XRD 320).

(Rigaku

TriStar II 3020.

Zetasizer Nano ZS.

SiO₂ 15,0 .%.

ZnO 60,04 .%,
- 9,73 .%,
- 20,40 .%,
() - 4,91 .%,
10,0 .%.

7

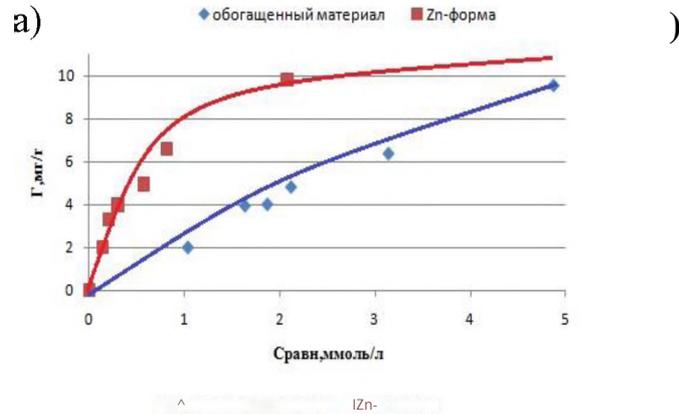
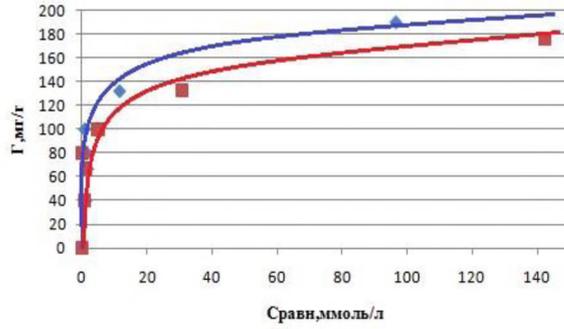
298

Spekord-50

665

499

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	-	-	$S_{2/}$	-	\wedge_{-}
	-	-		3/	,
	,	,			,
	/	/			
	$9,0 \cdot 10^{-3}$	$5,9 \cdot 10^{-2}$	48	0,057	-19,2
	$9,510^{-3}$	$5,510^{-2}$	37	0,057	-12,9

Zn-

[3].

Zn-

Zn-

1.

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. 2015. . 15. . 1. . 127 - 133.

2. Volovicheva N., Vezentsev A., Korolkova S., Sokolovskiy P. Modi-fied layered aluminosilicate nanosorbents for water treating // International Journal of Applied Engineering Research. 2015. Vol. 10. 12. P. 31381 - 31388.3. Manju C.S. Mineralogy, geochemistry and utilization study of the Madayi kaolin deposit, North Kerala, India / C.S. Manju, V. Narayanan Nair, M. Lalithambika // Clays and Clay Minerals. - 2001- Vol. 49. - . 4. - P. 355 - 369.4. Turkoz M., Tosun H. The use of methylene blue test for predicting swell parameters of natural clay soils // Scientific Research and Essays. 2011. Vol. 6(8). P. 1780-1792.

5.

NiO-SiO₂ //

. 54. 1. . 12 - 15.

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