

Peak	T,% (functional group)	
425.27	97.847	(Ce)
460.96	86.456	(Ce)
570.89	72.894	(Ce)
676.00	94.199	
725.18	93.856	
794.62	94.813	
846.69	73.958	
899.73	69.217	
1071.38	13.384	(alcohol O-H)
1318.25	29.987	
1557.41	24.743	(impurity of NO ³⁻)
1652.88	63.899	
3114.82	25.599	
3440.77	81.946	(OH)
3521.78	76.108	(OH)
3594.10	77.472	(OH)
3757.07	91.649	(OH)

Figure S1. FTIR spectrum of CeO₂ NPs synthesized in ethylene glycol medium.

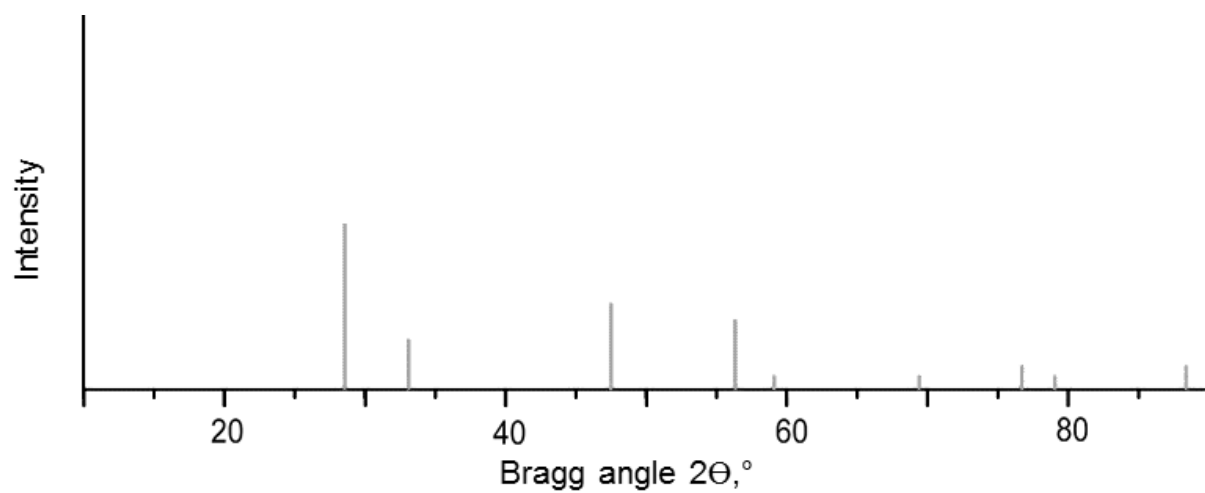
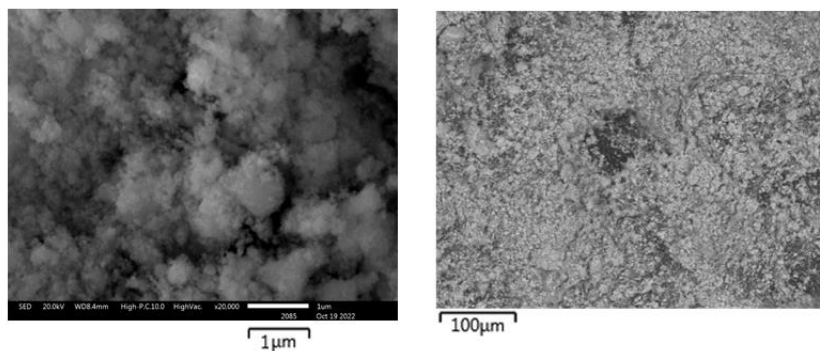
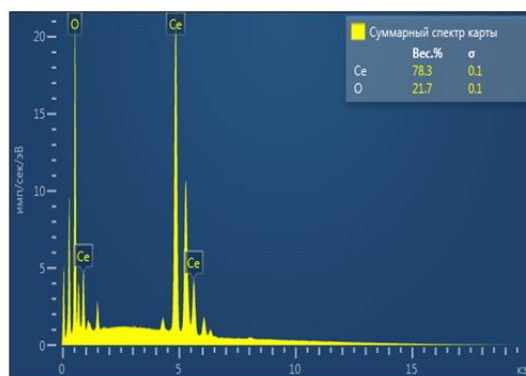


Figure S2. PXRD pattern of CeO₂ NPs, ICDD-JCPDS database (JCPDS No. 34-0394).

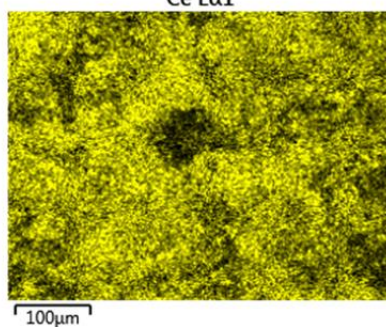
SEM



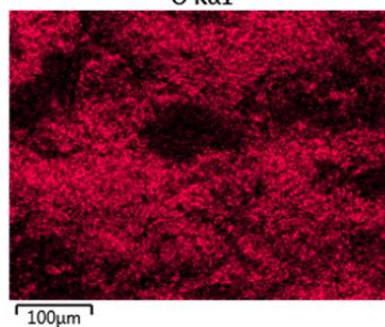
EDX



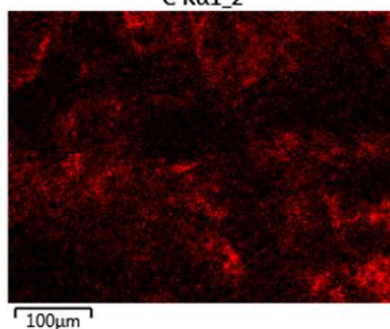
Ce La1



O Kα1



C Kα1_2



Al Kα1

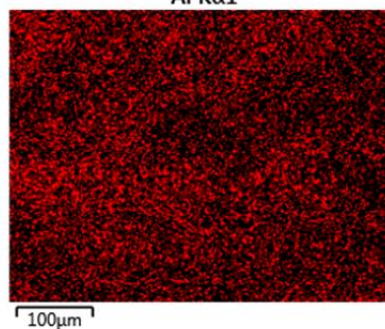
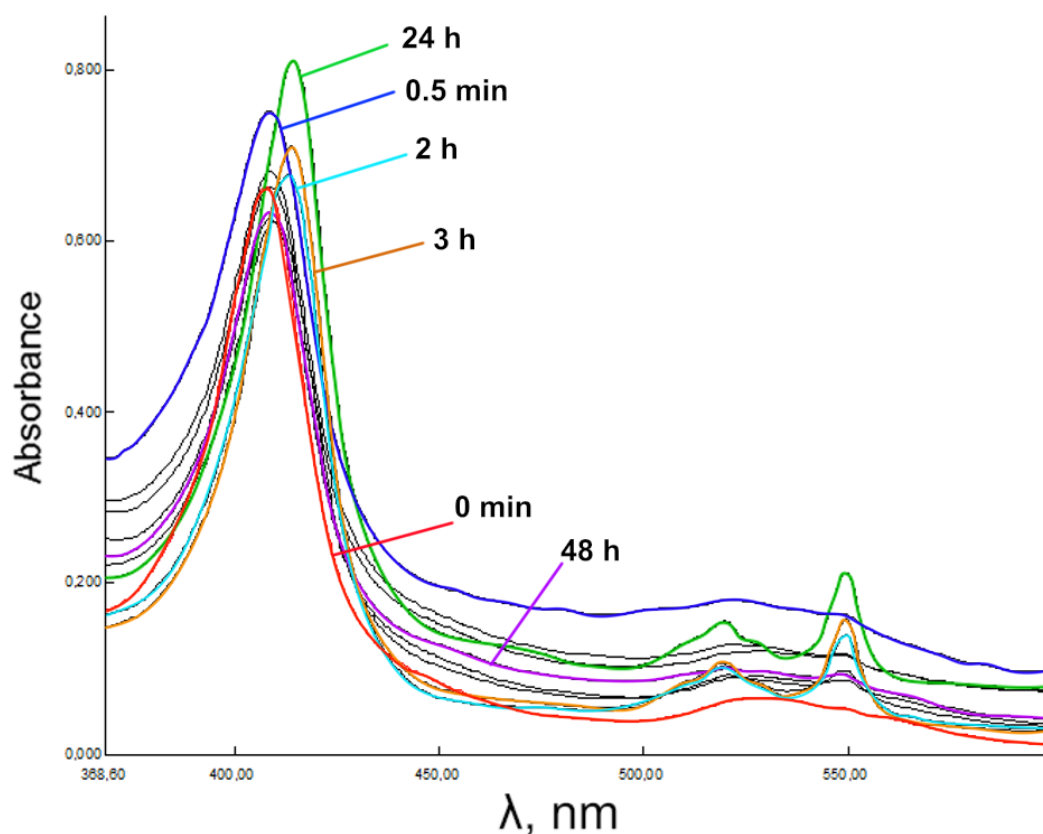


Figure S3. SEM and EDX data of CeO₂ NPs.



No		τ , min	Band	
			γ	
			A	λ , nm
1		0	0.663	408.0
2		0.5	0.752	408.5
3		5.0	0.680	409.0
4		10.0	0.663	409.0
5		30.0	0.634	409.0
6		60.0	0.625	409.0
7		120.0	0.683	413.5
8		180.0	0.710	414.0
9		1440.0	0.810	414.5
10		2880.0	0.626	408.0

Figure S4. UV spectra of 0.0666 mM solution of $\text{cyt } c^{3+}$ with BC-CeO₂ NPs (7 mg in 5 ml of phosphate buffer solution). Spectra were obtained after centrifugation of mixtures. Data of the UV spectrum of Blank $\text{cyt } c^{2+}$ solution – λ , nm/A = 414.0 nm/0.708; 520.0 nm/0.082; 549.5 nm/0.113.

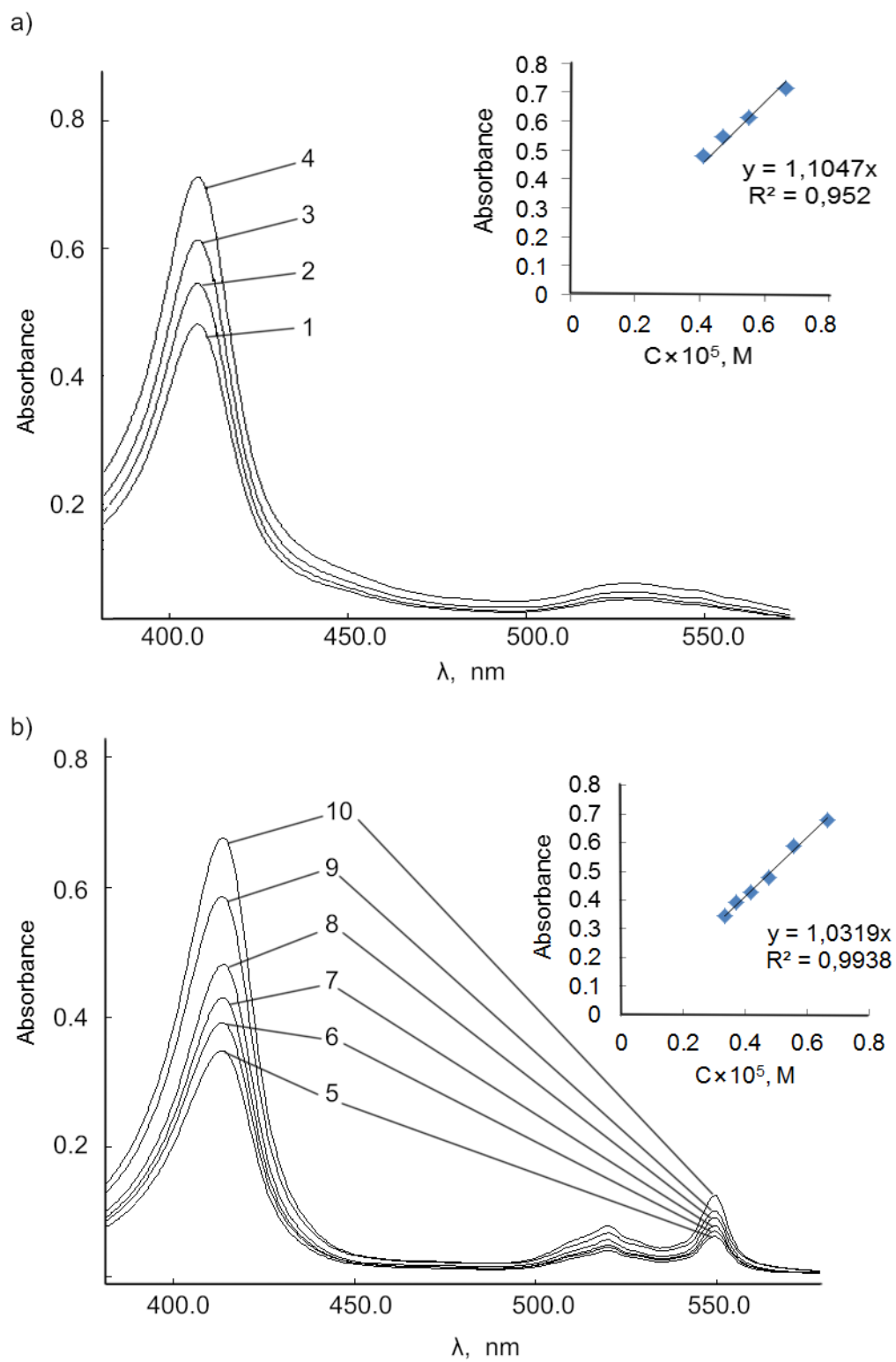


Figure S5. UV spectra of cyt c^{3+} (a) and cyt c^{2+} (b) in phosphate buffer solution, pH 7.4.

Table S1. Data of UV-vis spectra of cyt c^{3+} and cyt c^{2+} in phosphate buffer solution, pH 7.4.

Sample	Curve	$C \times 10^5, M$	λ, nm	$A (\gamma)$	ϵ $L \cdot mol^{-1} \cdot cm^{-1}$
Cyt c^{3+} (Fig. S4a)	1	0.416	408.0	0.480	115384.6
	2	0.475	408.0	0.544	114526.3
	3	0.555	408.0	0.611	110090.1
	4	0.666	408.0	0.711	106756.8
Cyt c^{2+} (Fig. S4b)	5	0.333	413.5	0.347	104204.2
	6	0.370	413.5	0.391	105675.7
	7	0.416	414.0	0.429	103125.0
	8	0.475	414.0	0.481	101263.2
	9	0.555	413.5	0.586	105585.6
	10	0.666	414.0	0.676	101501.5