nanomaterials

MDPI

Article

Wound Healing Composite Materials of Bacterial Cellulose and Zinc Oxide Nanoparticles with Immobilized Betulin Diphosphate

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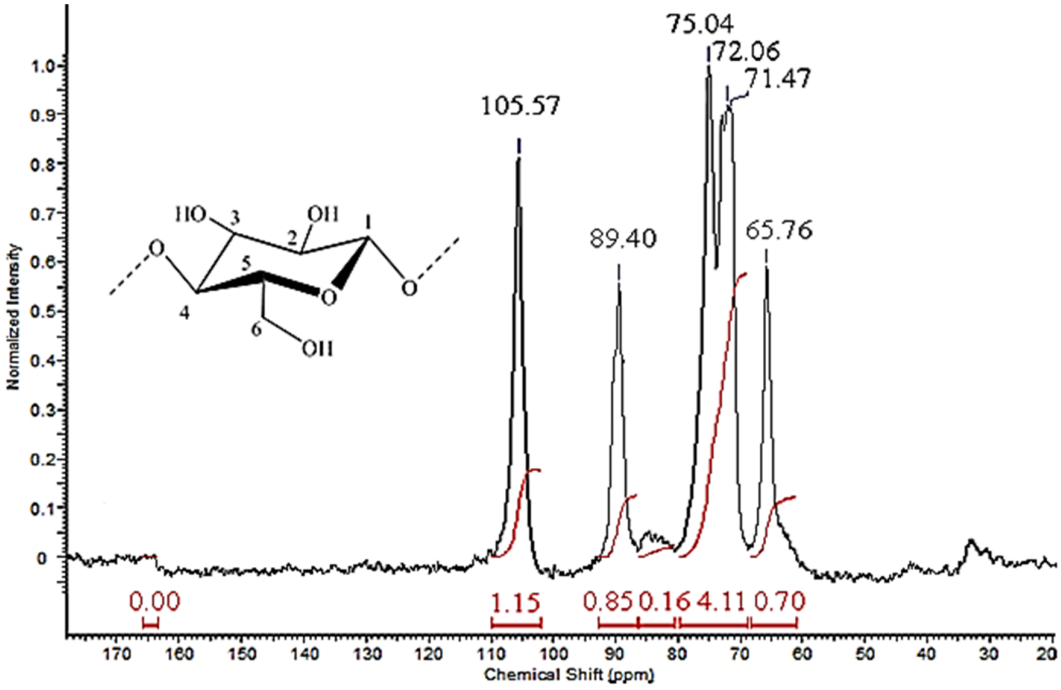
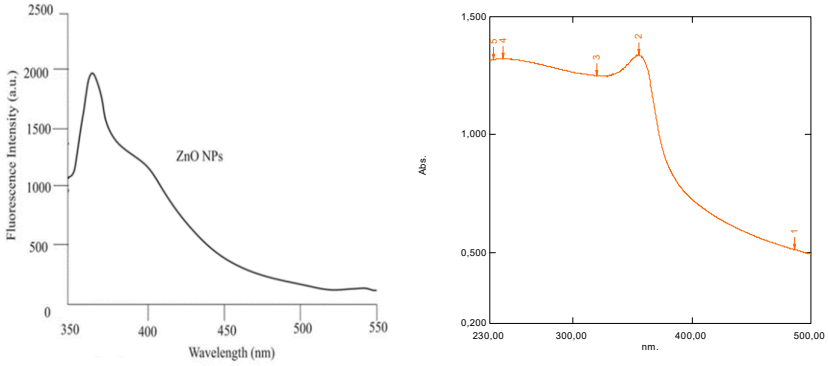


Figure S1. ^{13}C NMR spectrum of solid bacterial cellulose.



(**a**) (**b**)

Figure S2. Fluorescence spectra of 27.2 mg% dispersions of ZnO NPs (**a**); UV spectrum of ZnO NPs in ethanol, 27.2 mg/%, blanc – ethanol (**b**).

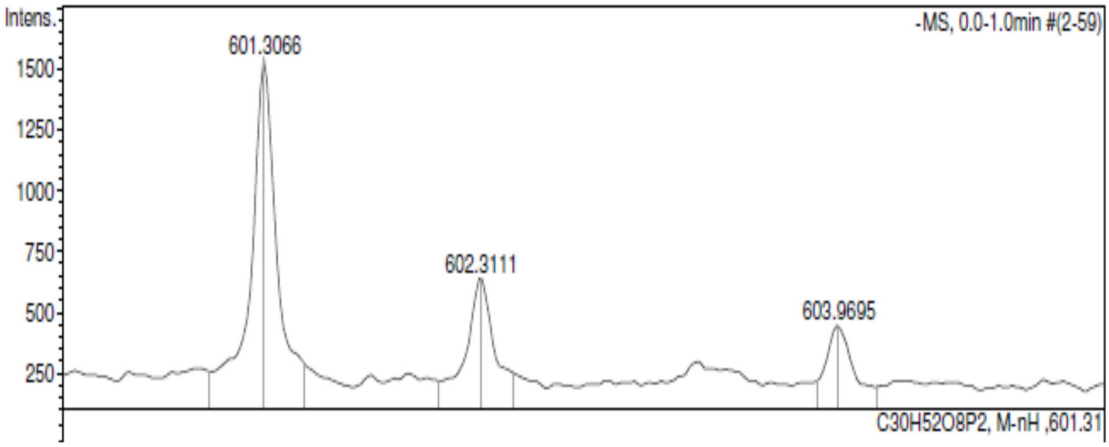


Figure S3. MS spectrum of BDP.

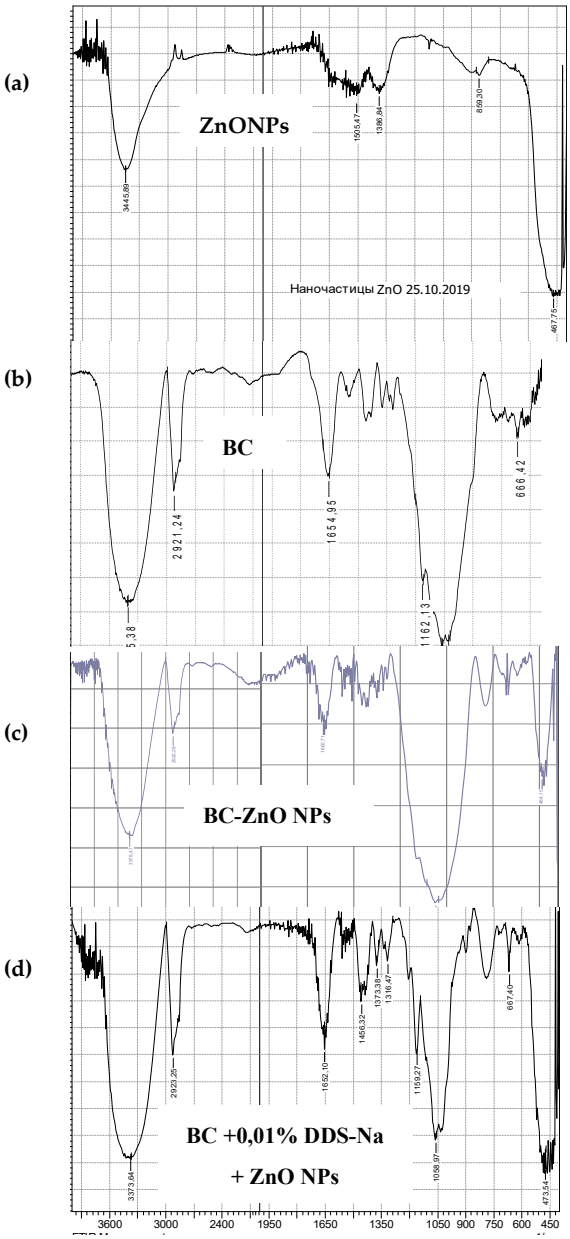


Figure S4. FTIR spectra characteristics of ZnO NPs (a), bacterial cellulose (b) samples and aerosol bacterial cellulose with immobilized ZnO NPs (c), BC + 0,01% DDS-Na + ZnO NPs (d).

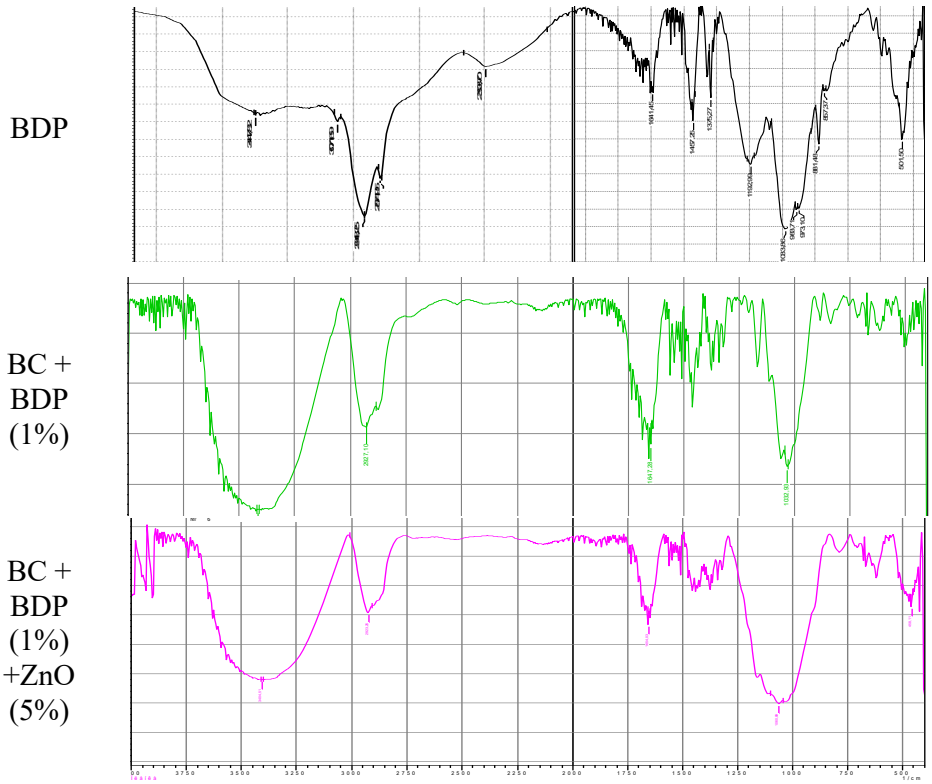


Figure S5. FTIR spectra characteristics of BDP, BC + BDP (1%) and BC + BDP (1%) +ZnO (5%).

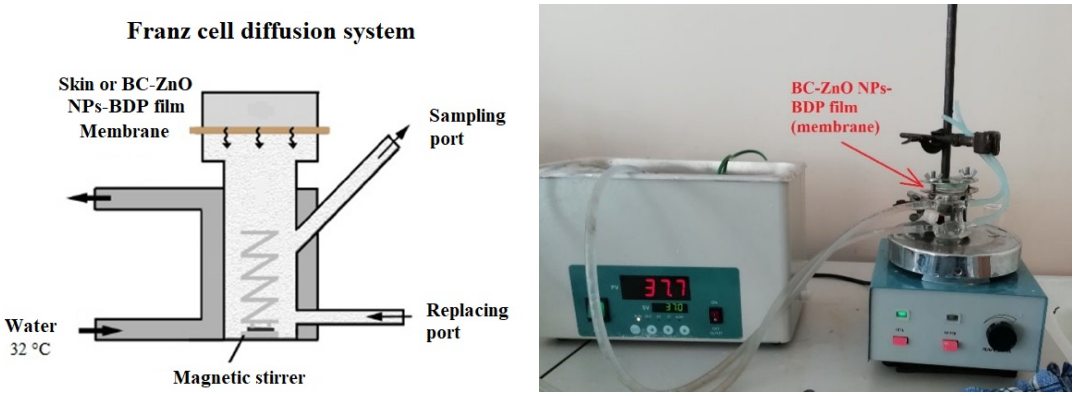


Figure S6. Scheme of the Franz vertical diffusion cell.

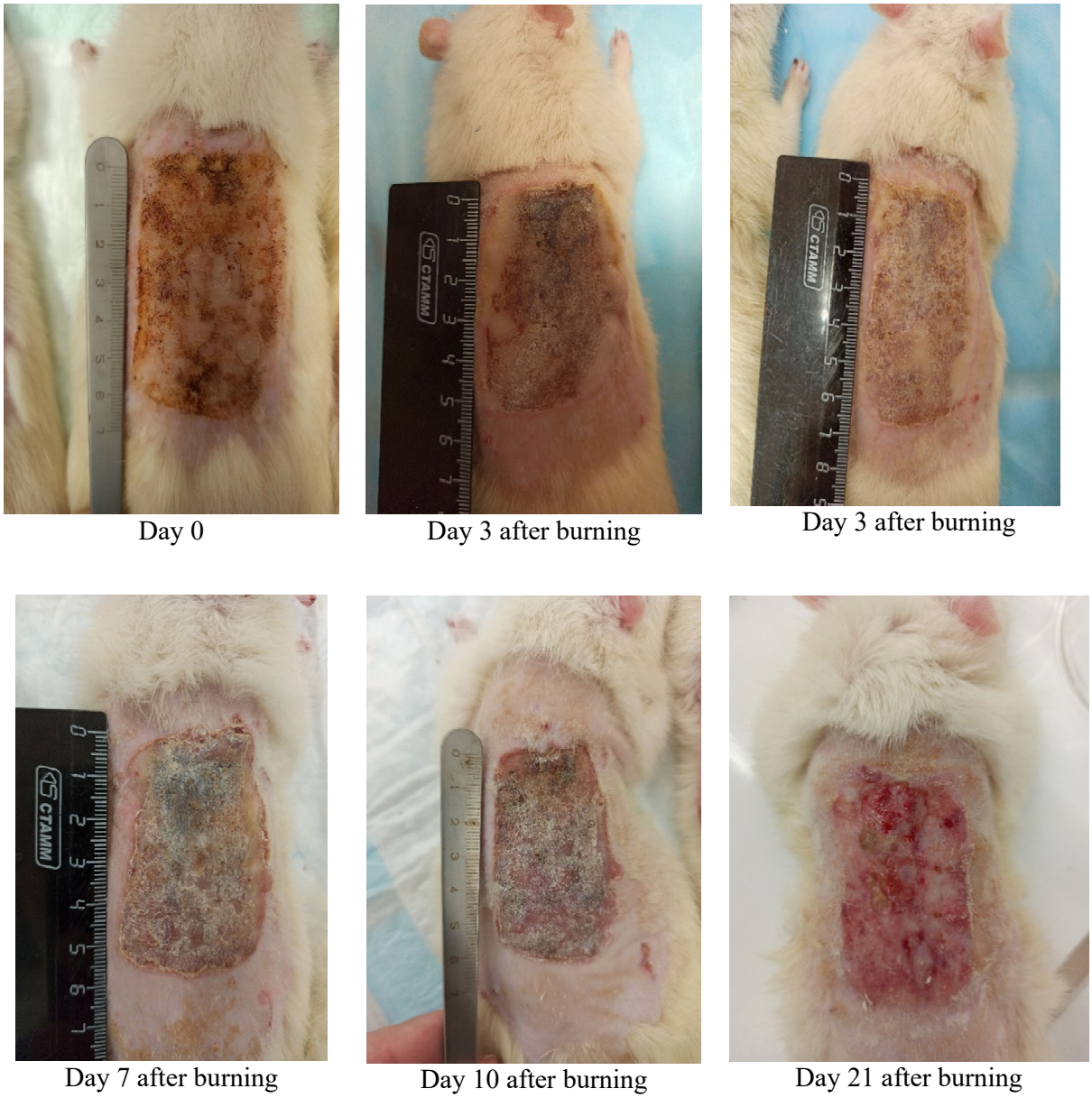


Figure S7. Treatment by BC-ZnO NPs composite.

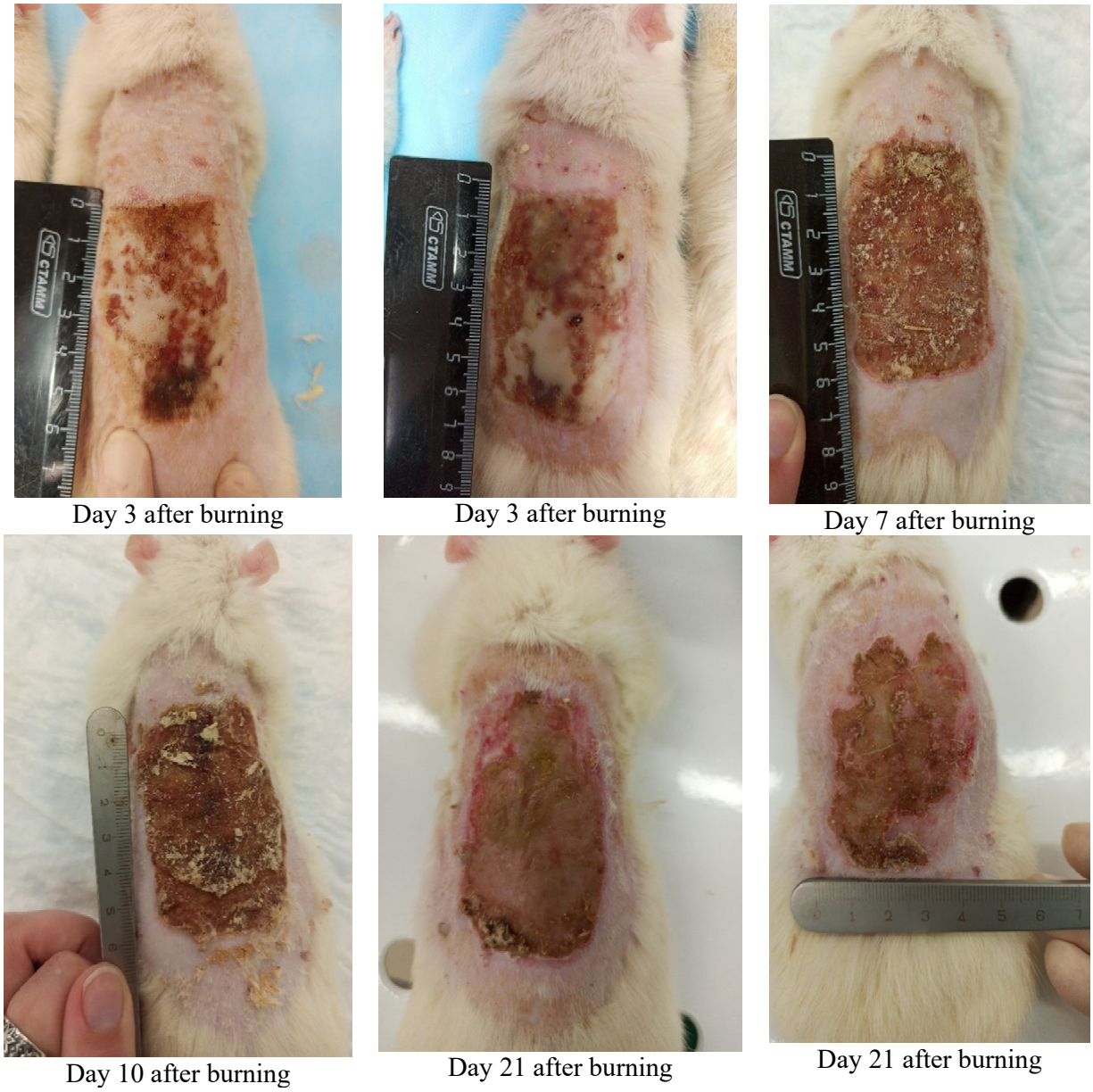


Figure S8. Treatment by BC-BDP composite.

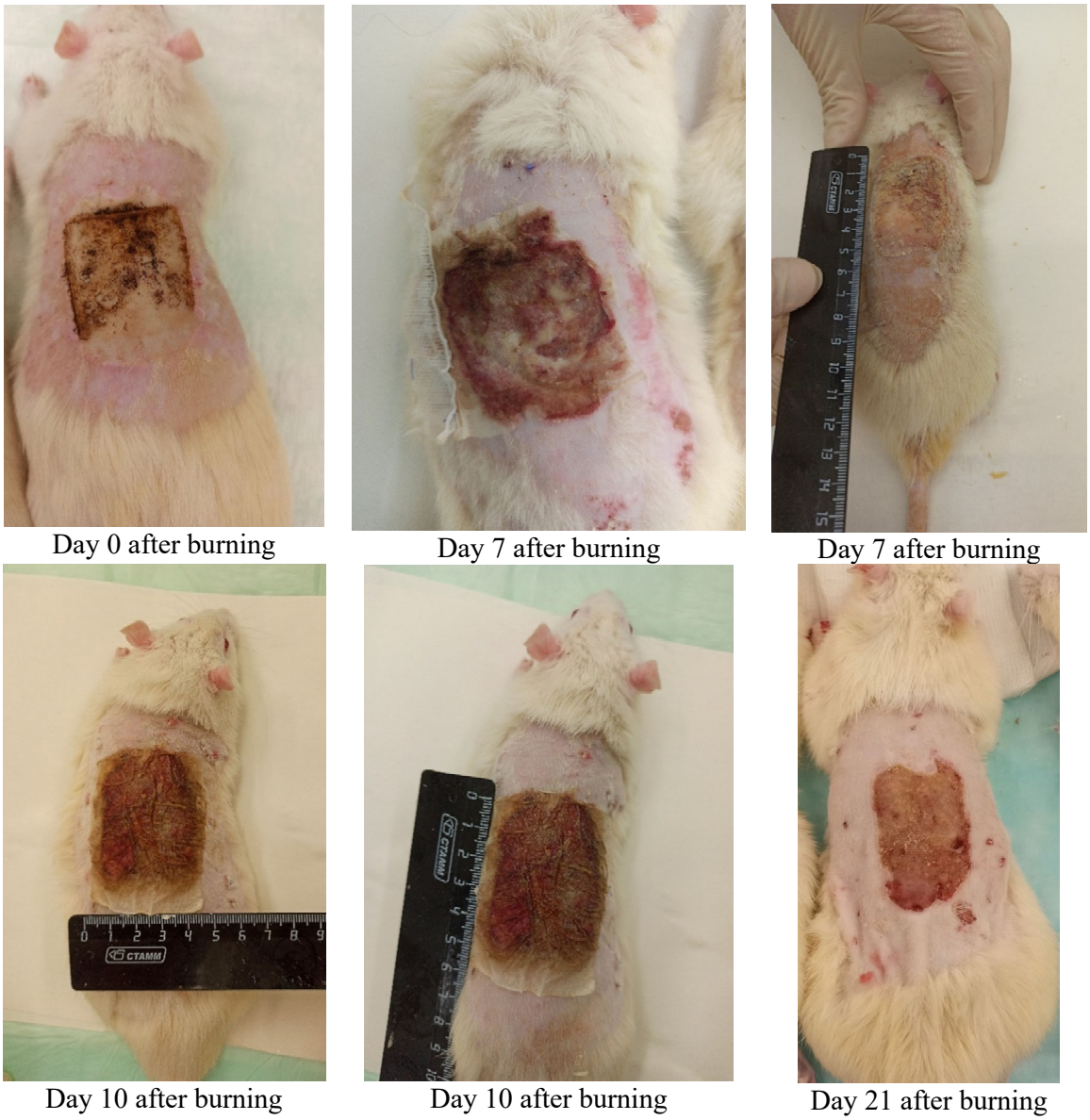


Figure S9. Treatment by BC-ZnO NPs-DBP composite.

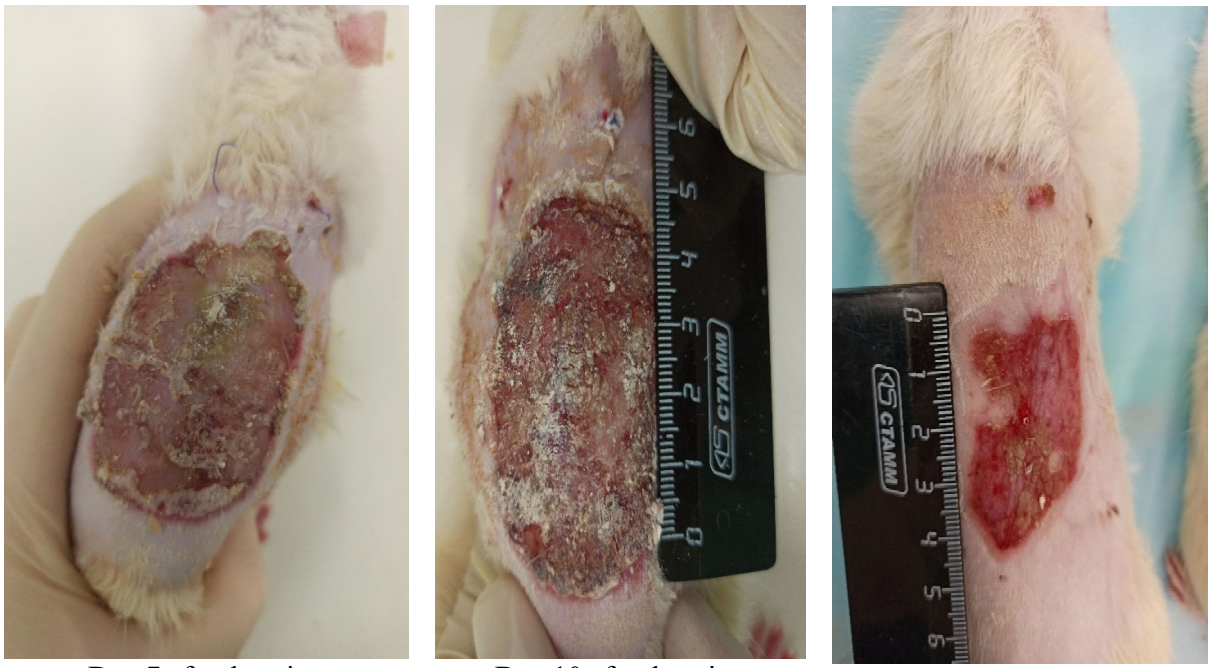


Figure S10. Treatment by ZnO NPs-BDP-B oleogel.

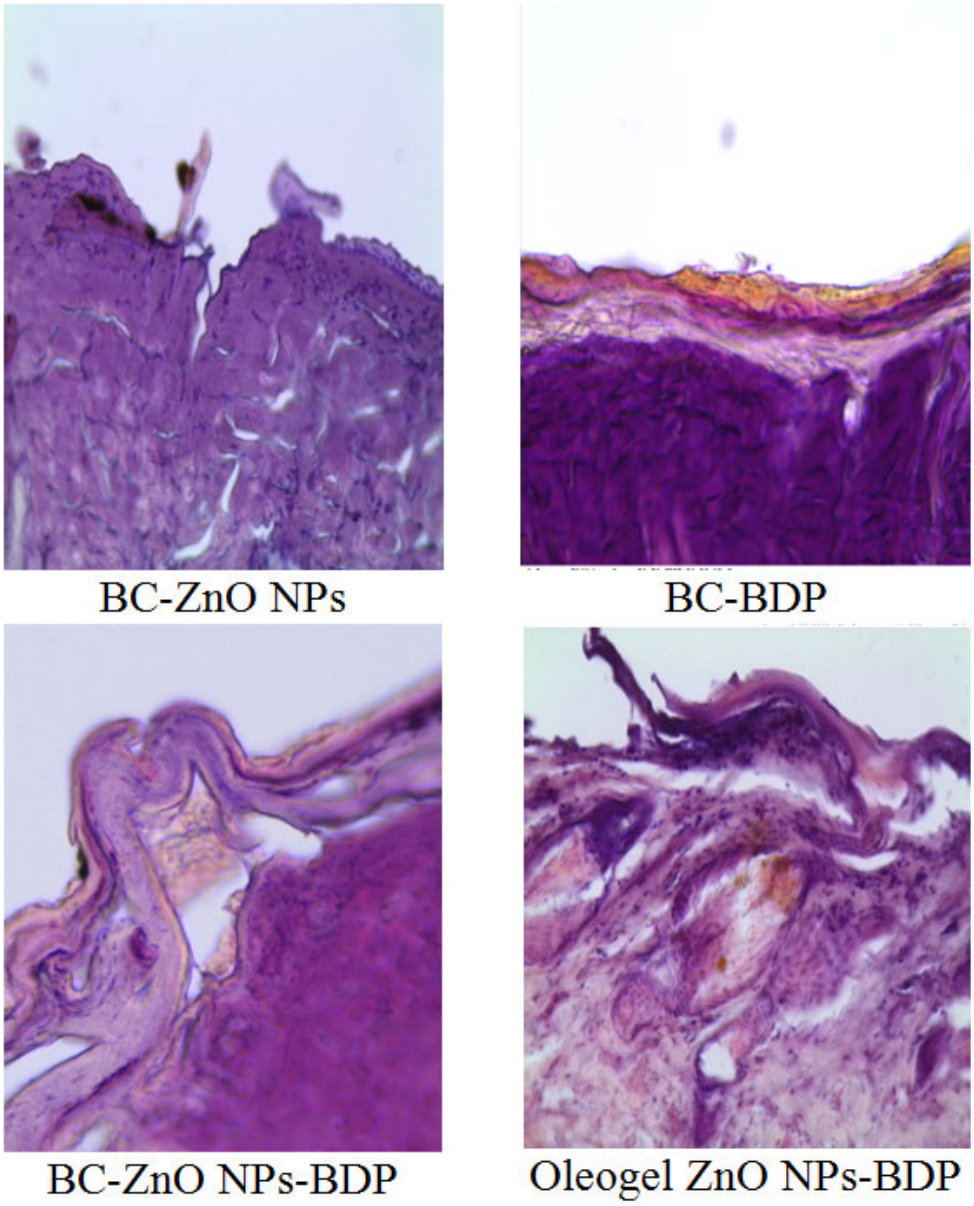


Figure S11. Tissue state by morphological and histological examination (3 Day, hematoxylin-eosin, ×600).

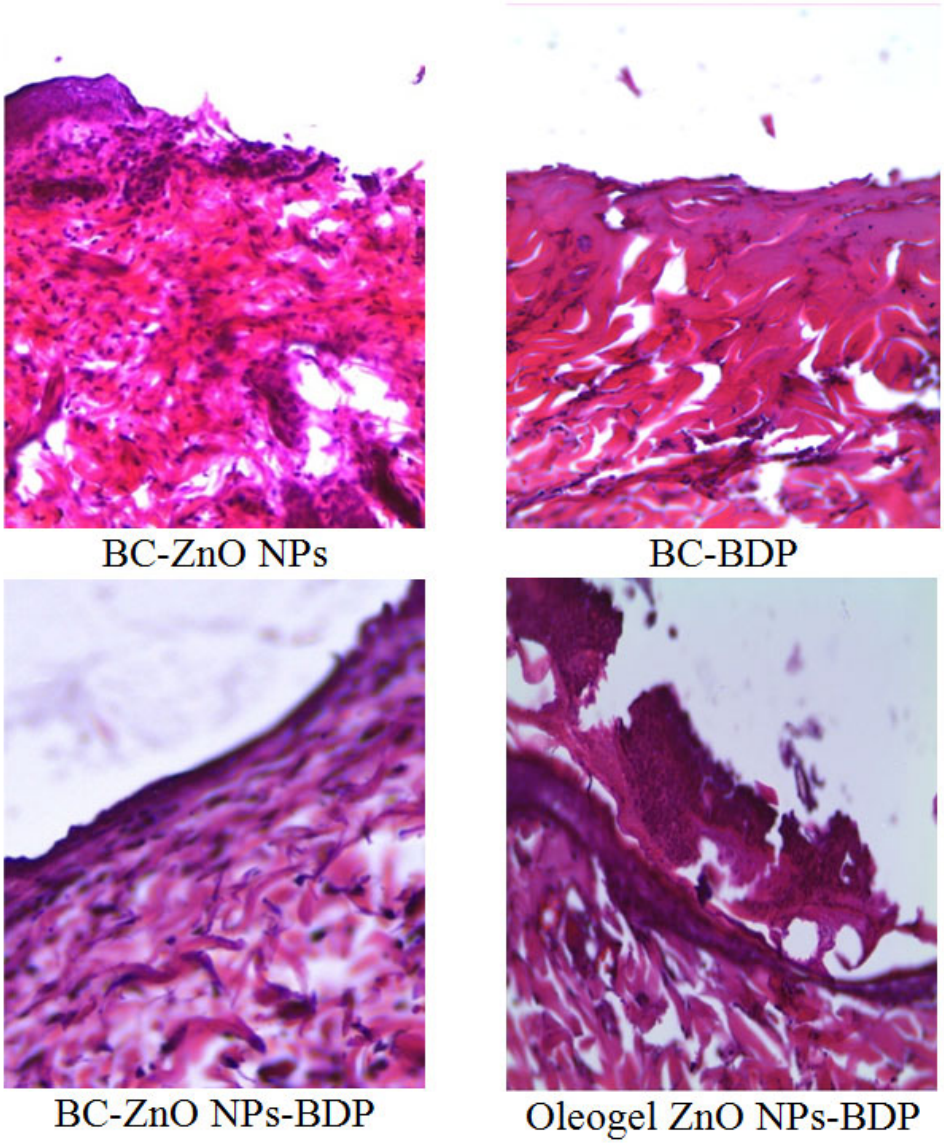


Figure S12. Tissue state by morphological and histological examination (7 Day, hematoxylin-eosin, ×600).

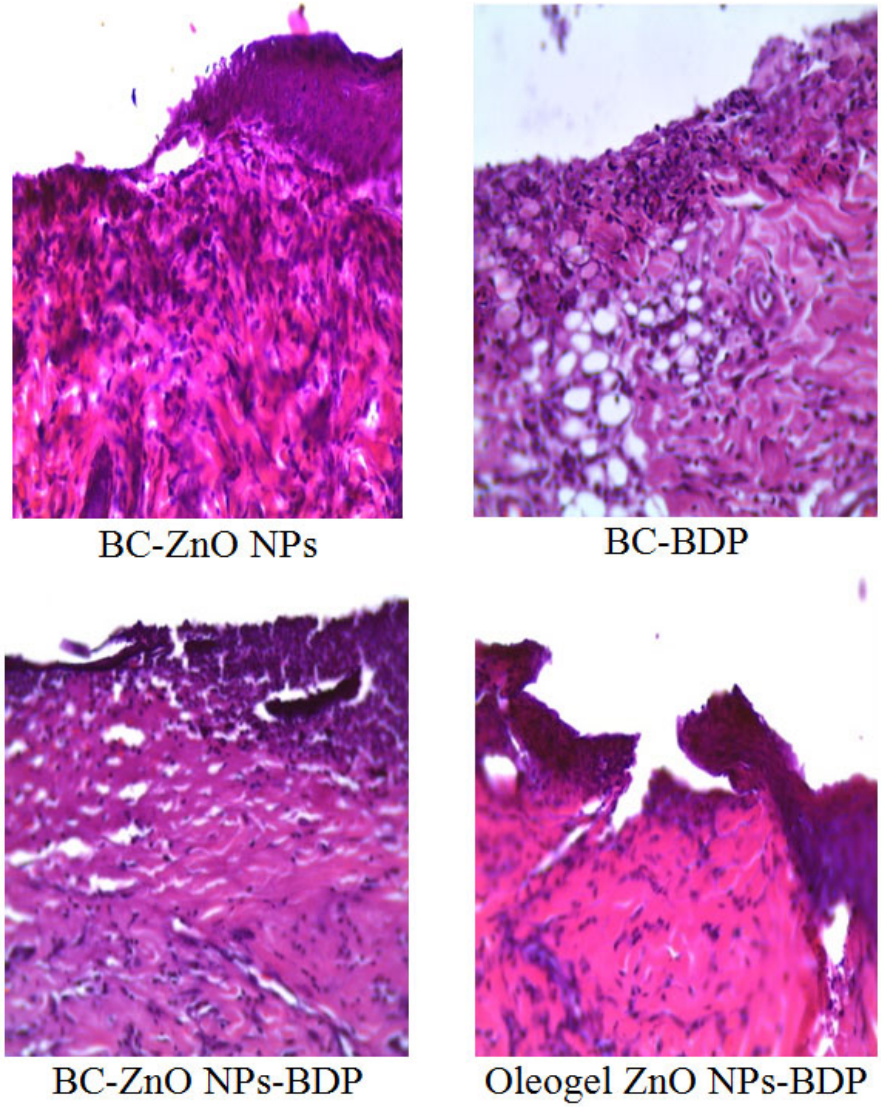


Figure S13. Tissue state by morphological and histological examination (10 Day, hematoxylin-eosin, ×600).

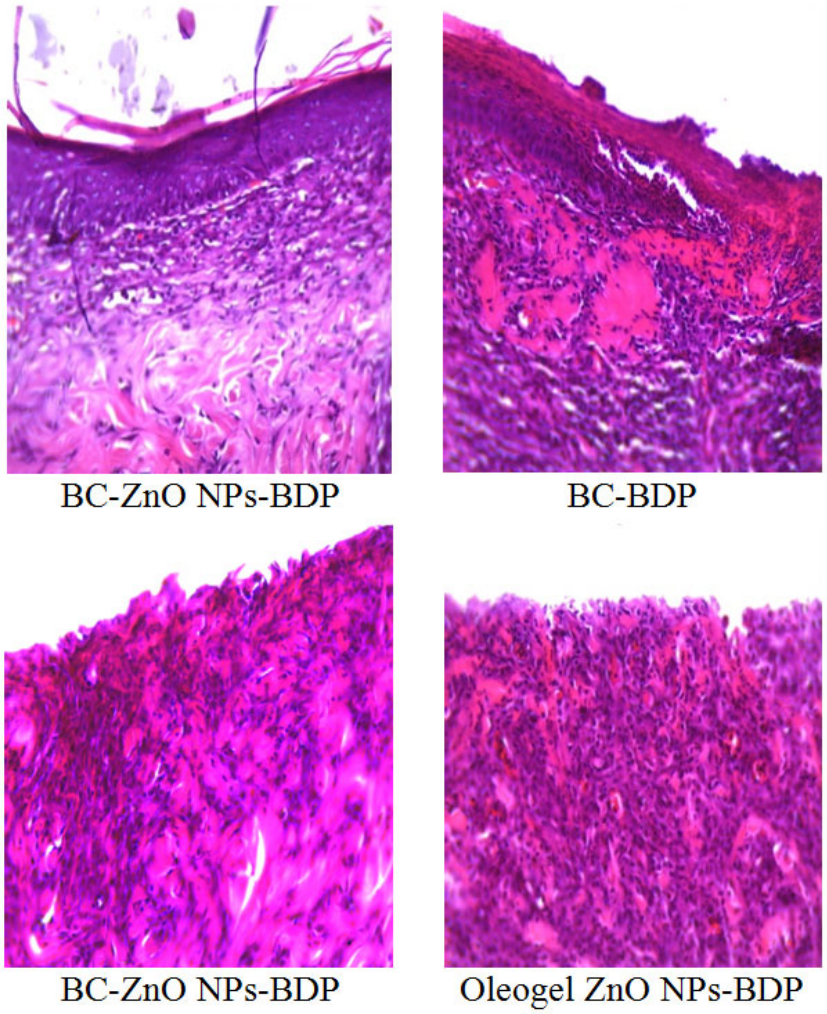


Figure S14. Tissue state by morphological and histological examination (21 Day, hematoxylin-eosin, ×600).

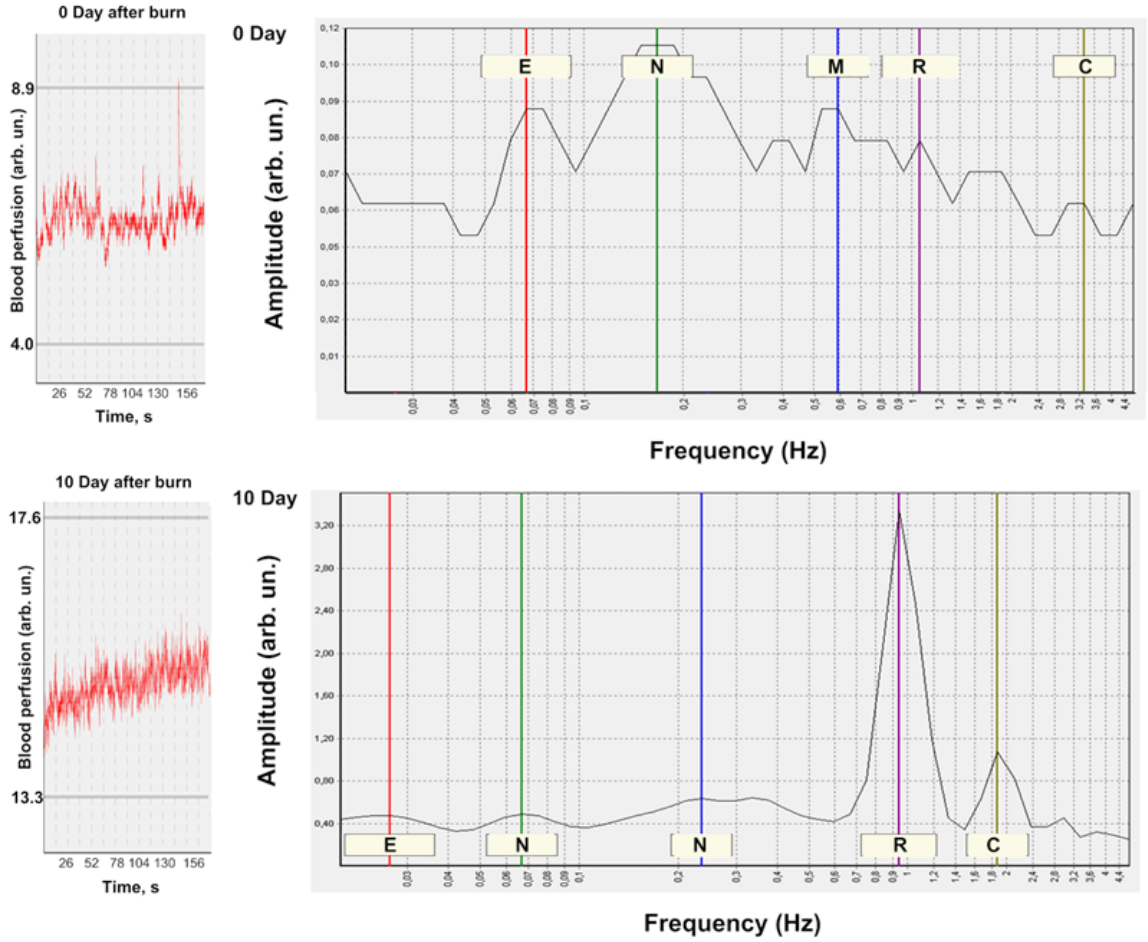


Figure S15. Typical LDF grams and the corresponding wavelet spectra obtained immediately after the burning (0 day) and on day 10 after burning on the wound of rats. E – endothelial, N – neurogenic, M – myogenic, R – respiratoty and C – cardiac oscillations.