

A DR/NIR Hybrid Polymeric Tool for Functional Bio-Coatings: Theoretical Study, Cytotoxicity, and Antimicrobial Activity

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SUPPLEMENTARY MATERIAL

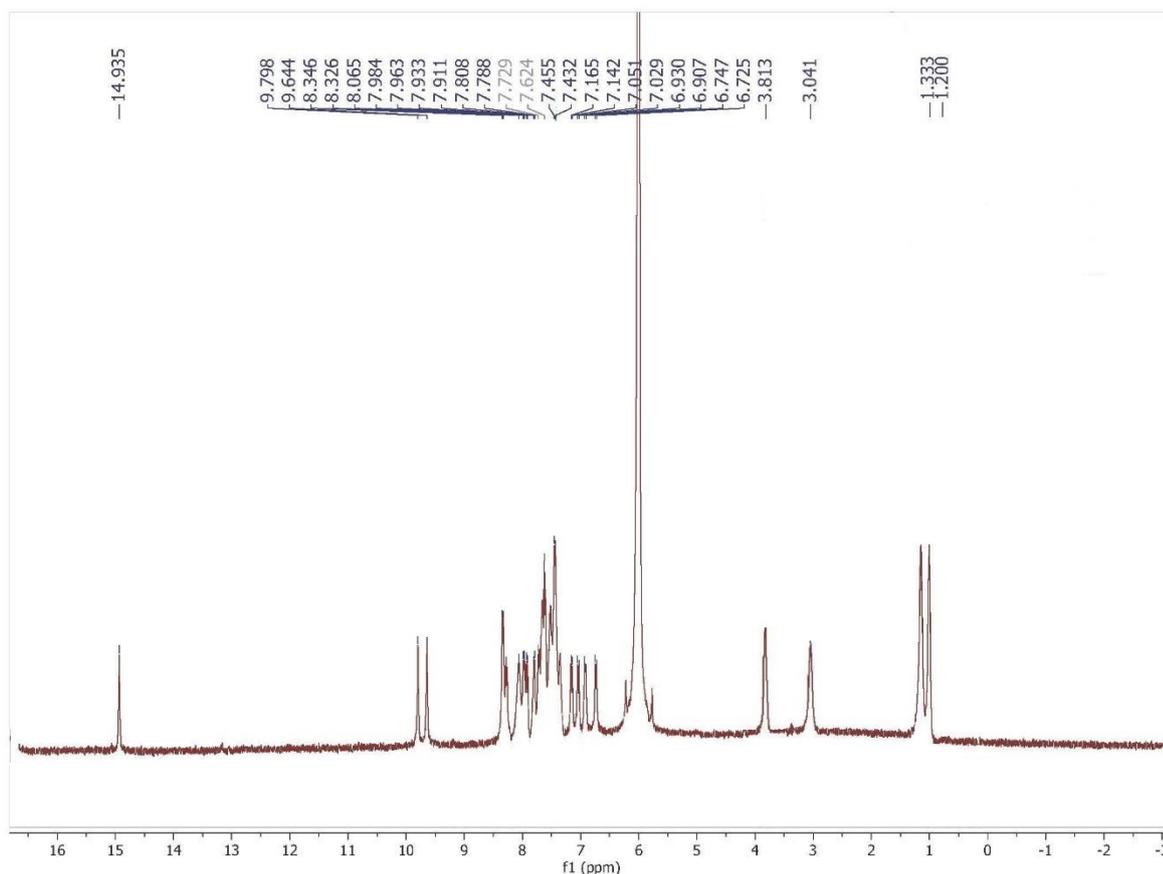


Figure S1. Hard copy ¹H NMR (500 MHz, TCE-d₂, 25 °C, ppm) of ZnNB.

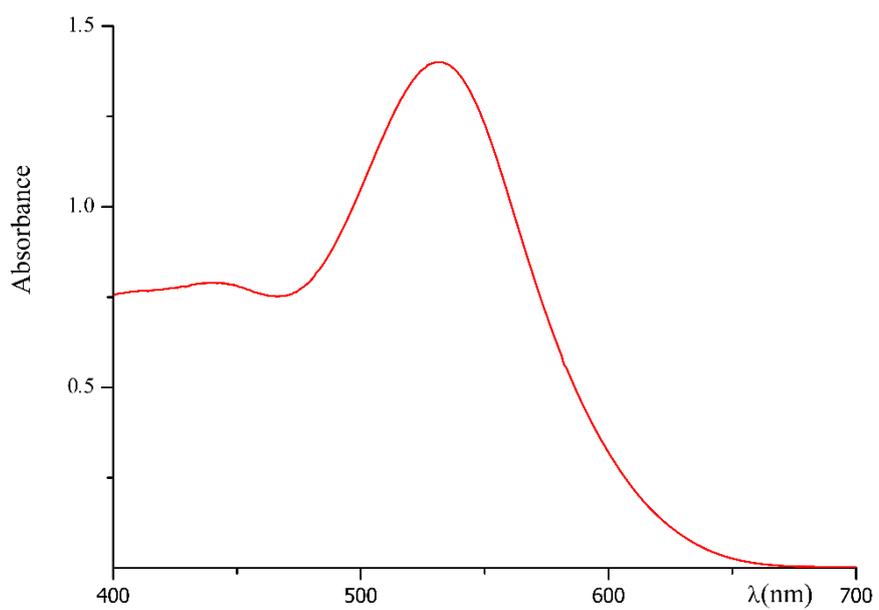


Figure S2. Absorbance spectrum of ZnNB deposited as powder crystals onto a quartz slide.

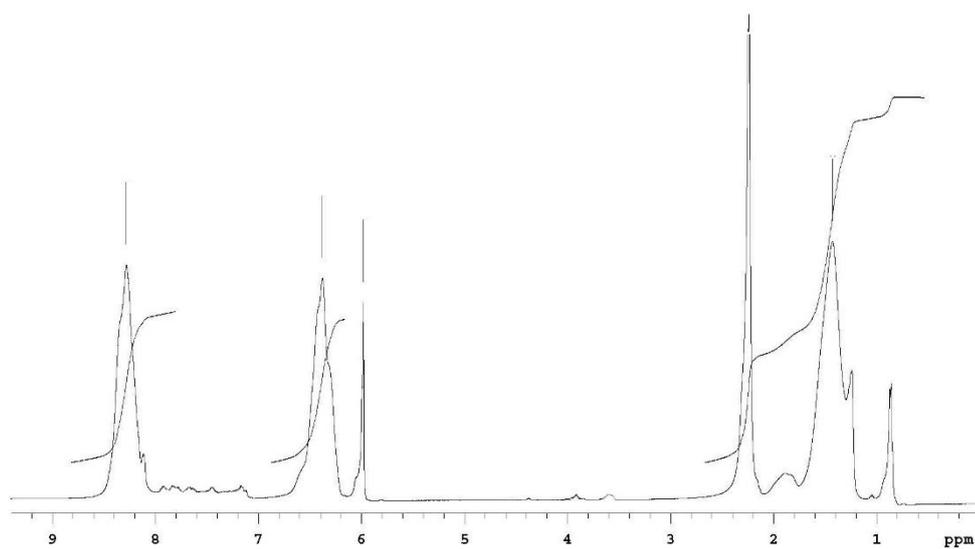


Figure S3. Hard copy ^1H NMR (500 MHz, TCE- d_2 , 25 $^\circ\text{C}$, ppm) of P4VP-ZnNB 20%.

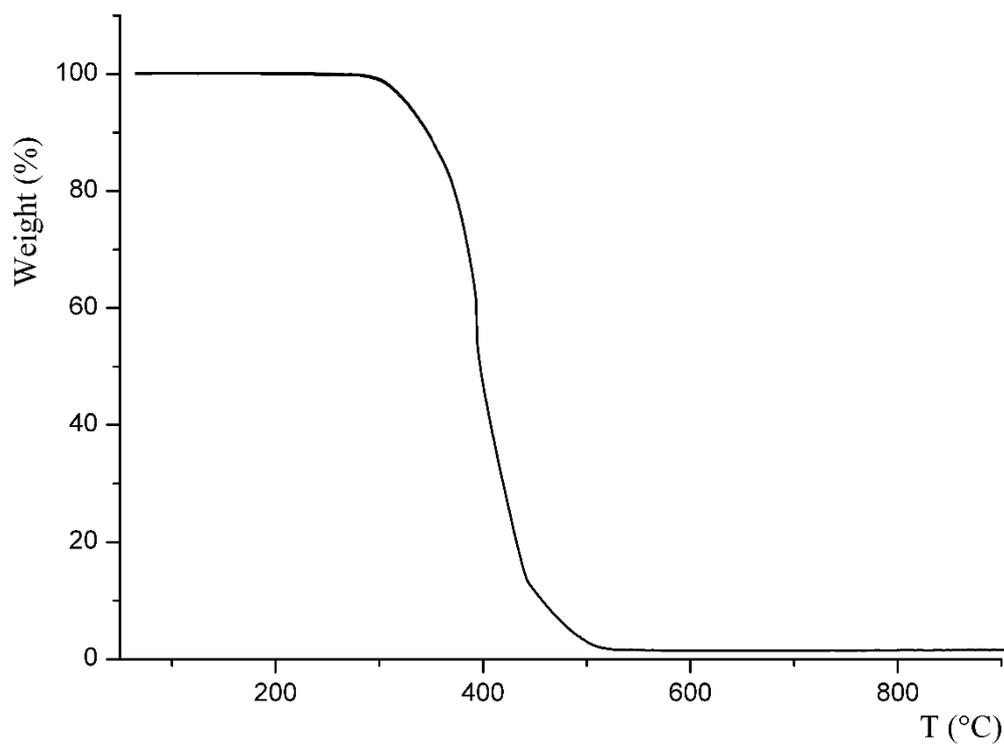


Figure S4. TGA curve of P4VP-ZnNB 20%.

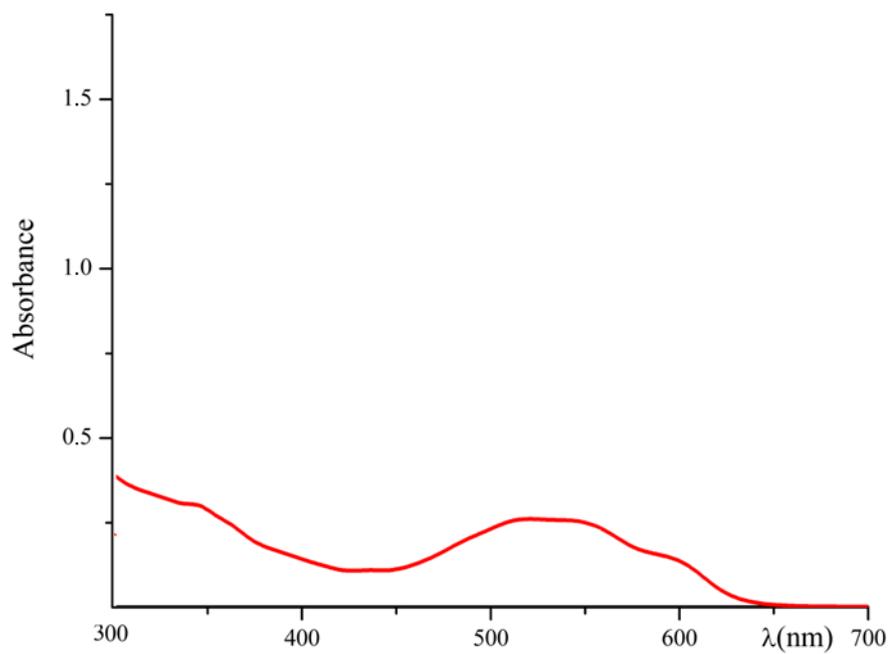


Figure S5. Absorbance spectrum of a thin transparent film P4VP-ZnNB 20% spin-coated onto a quartz slide.

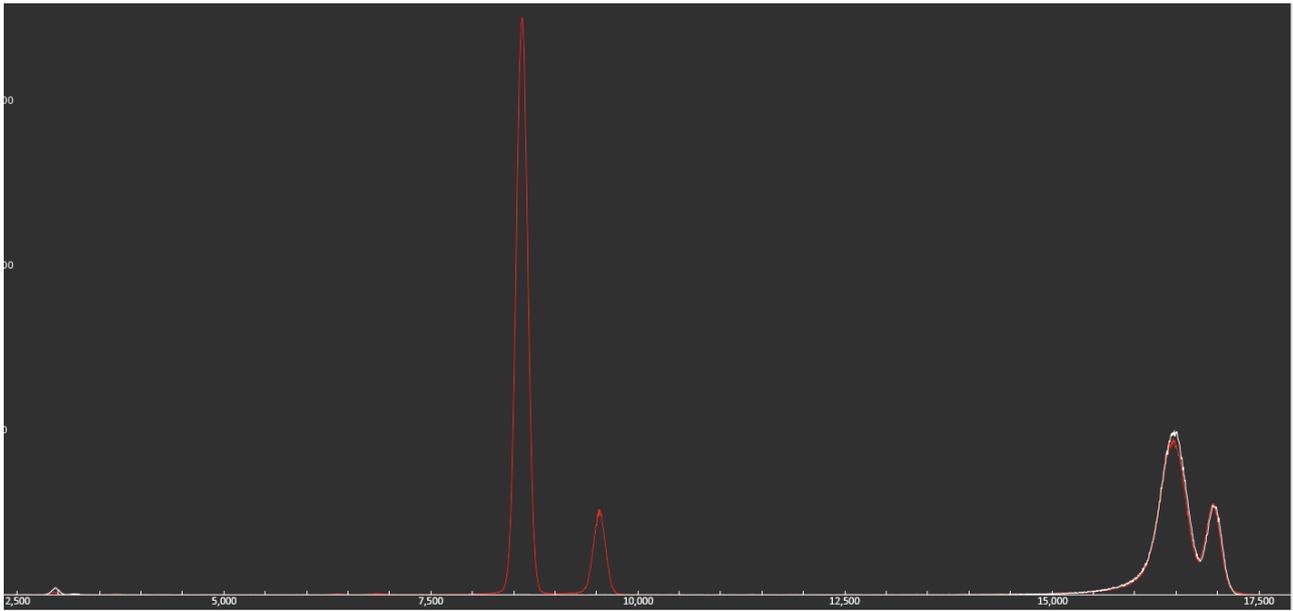


Figure S6. Energy spectrum obtained from X-ray fluorescence measurement of washed single crystal of ZnNB shows characteristic K edge (8.6 keV) and K peaks of zinc (red color). For comparison, the spectrum obtained for Kapton (shown in white color) is included. The material was used as support and a reference material.

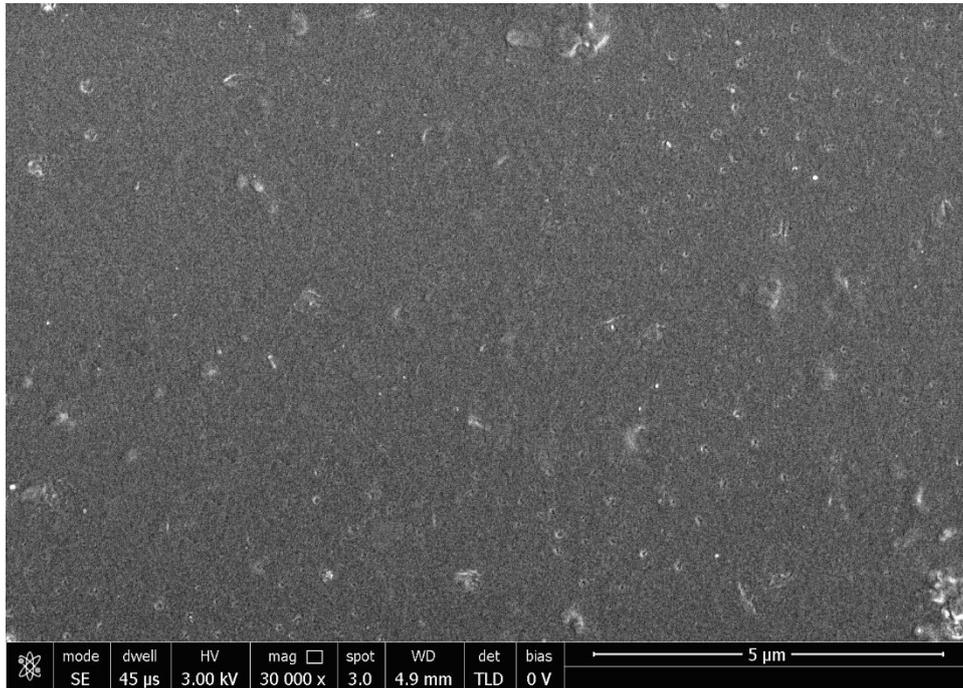


Figure S7. SEM micrographs of P4VP-ZnNB 20% film deposited onto quartz slide and metalized by gold sputtering (about 5 nm)

Table S1. Data collection statistics for crystals of ZnNB

Color	Red
Temperature (K)	100
Wavelength (Å)	0.619
Crystal system	Monoclinic
Space group	<i>P</i> 2 ₁ /n
<i>a</i> (Å)	16.442 (7)
<i>b</i> (Å)	4.790 (2)
<i>c</i> (Å)	25.880 (9)
α (°)	90.00 (3)
β (°)	91.24 (11)
γ (°)	92.49 (3)
Resolution (Å)	2.32–0.78
R-merge	0.053
I/s(I) (highest shell)	14.14 (2.07)
Completeness (%)	99.4
Multiplicity	6.5 (5.5)
Mosaicity (°)	0.281
Volume	5628 Å ³
Z	1