Supporting Information

for

Viability and proliferation of endothelial cells upon exposure to GaN nanoparticles

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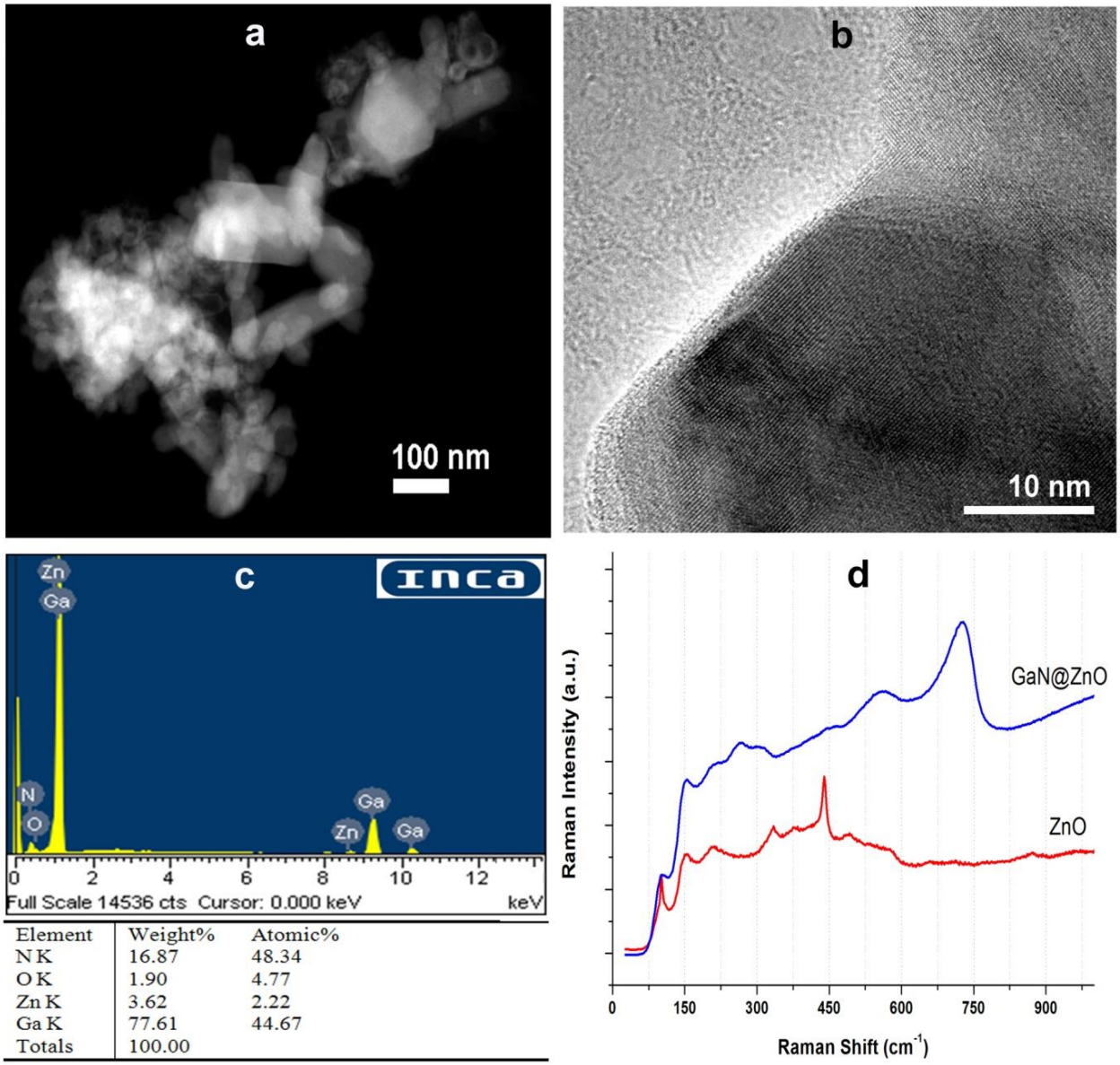
Details regarding nanoparticle characterization, chemical analysis measurements and schematics of the surface functionalization process with nanoparticles



Element	Weight%	Atomic%
N K	16.87	48.34
O K	1.90	4.77
Zn K	3.62	2.22
Ga K	77.61	44.67
Totals	100.00	

Figure S1: TEM images of GaN nanoparticles grown on a sacrificial layer of ZnO nanoparticles (a) and HRTEM of a single nanoparticle (b); EDX analysis is presented in (c) and comparative Raman measurements in (d).

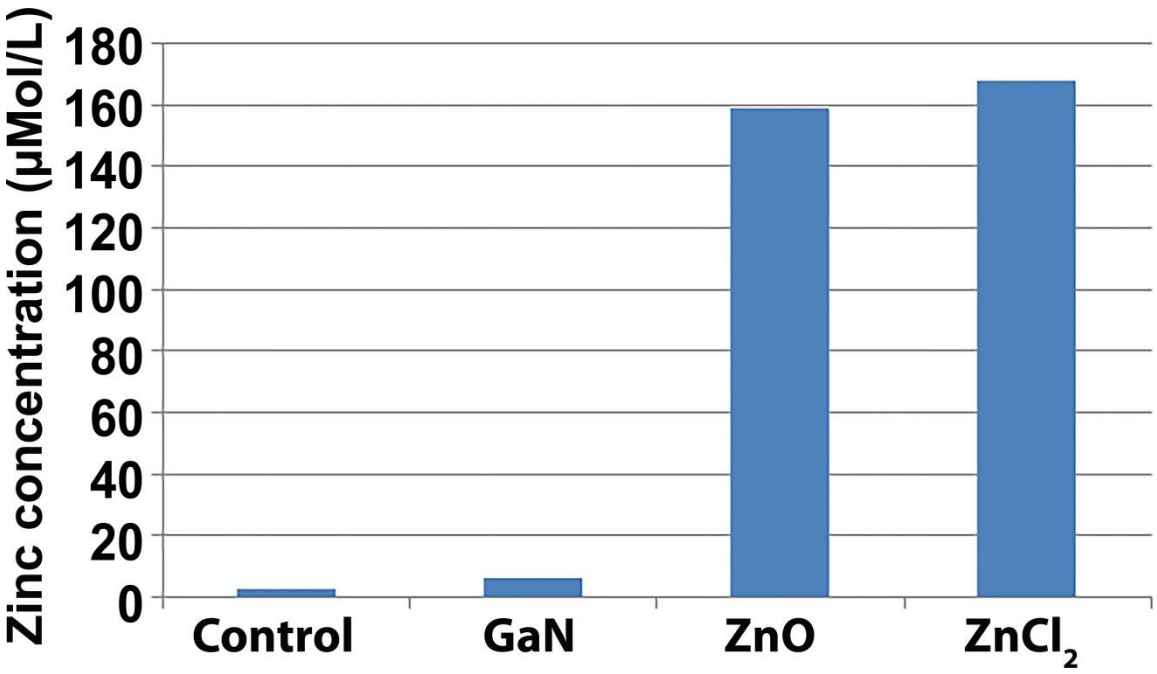


Figure S2: Zinc concentration released in the medium after incubation of EC with different types of nanoparticles at the concentration of 100 µg/mL, positive control is medium without any nanoparticles and negative control are samples with $ZnCl_2$ in the same concentration as ZnO and GaN.

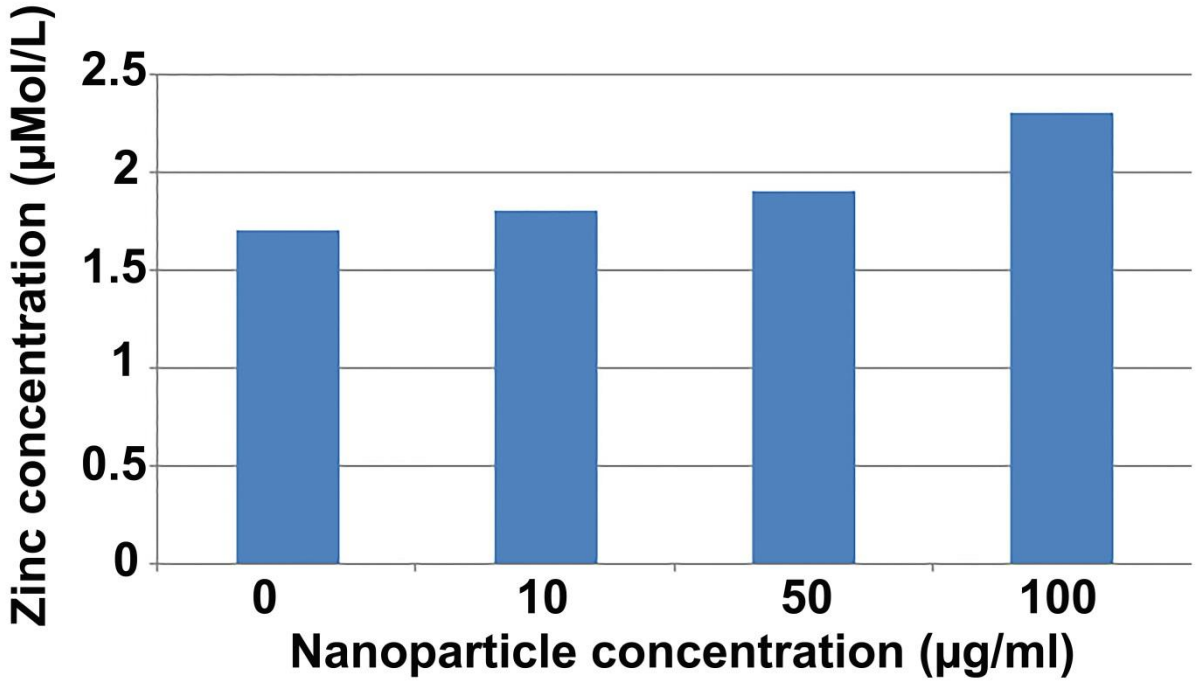


Figure S3: The concentration of zinc released in the culture medium after the incubation of EC with different concentrations of GaN nanoparticles.

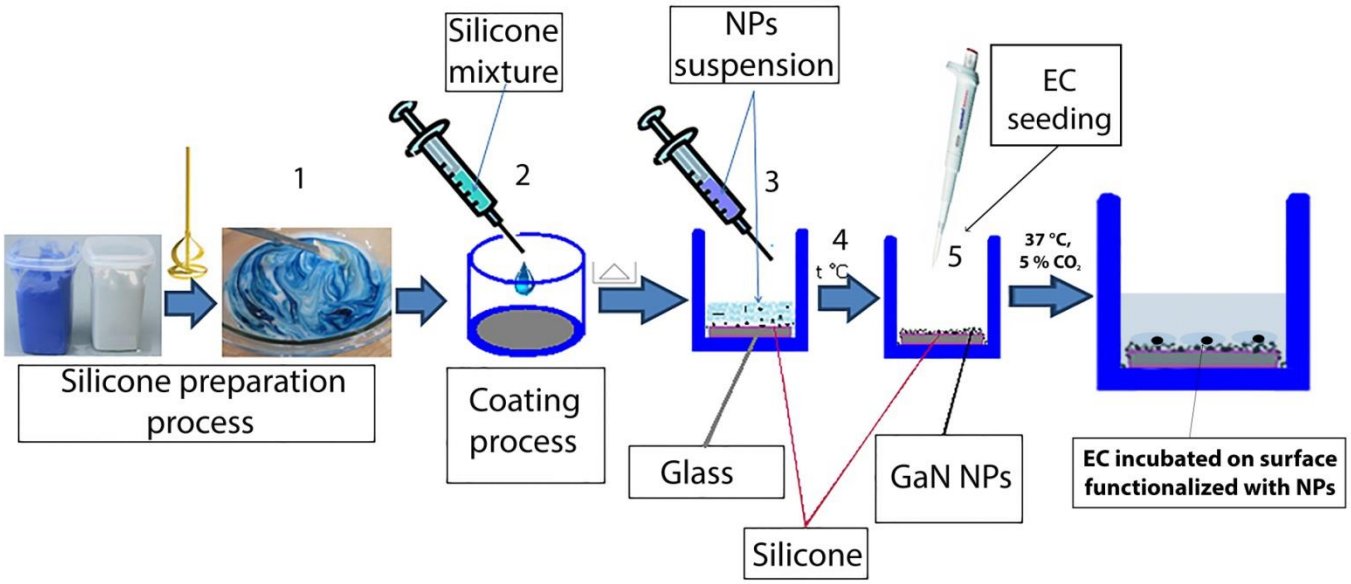


Figure S4: Schematic of the process of surface functionalization with GaN nanoparticles: 1. Mixing the two components of silicone; 2. Silicone spreading on the glass surface by spin coating; 3. Immediately after coating process was done the suspension of nanoparticles in deionized water was added; 4. During 12 h at 60 °C all the water evaporated, after that samples were sterilized at 180°C for 4 h; 5. Mounting coated glasses in culture plates and incubating endothelial cells on them.