

SUPPORTING INFORMATION

Novel Janus nanomachine based on mesoporous silica nanoparticles anisotropically modified with PAMAM dendrimers for enzyme controlled drug delivery

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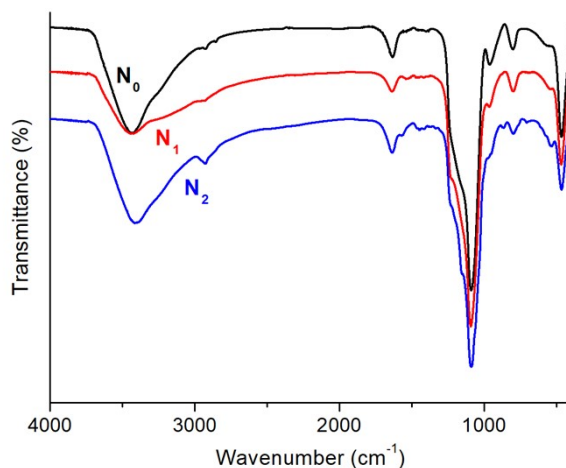


Figure 1S. FT-IR analysis for N₀-N₂.

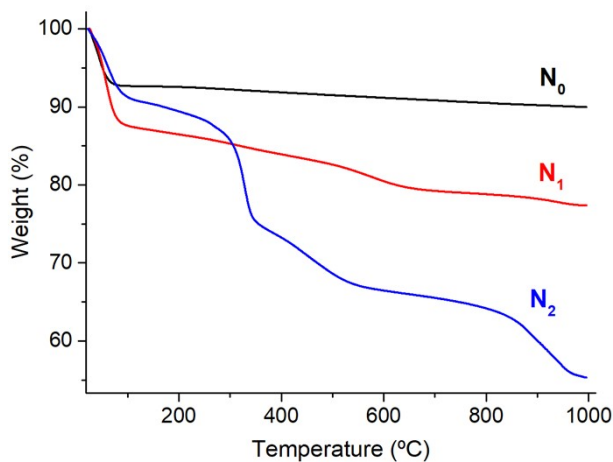


Figure 2S. Thermogravimetric analysis for N₀-N₂.

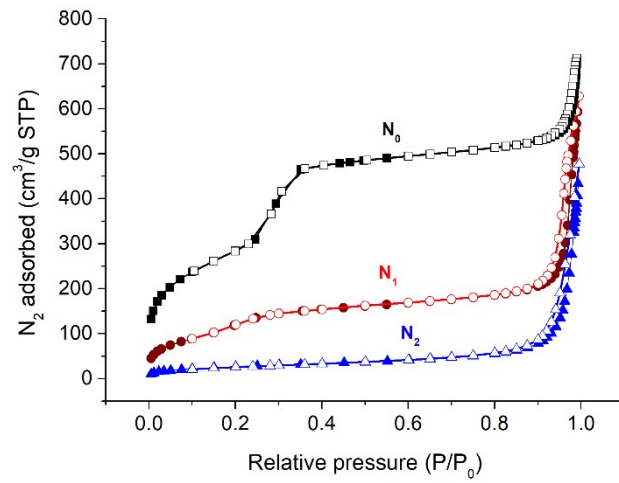


Figure 3S. Nitrogen adsorption (filled)/desorption (open) isotherms for N_0 - N_2 .

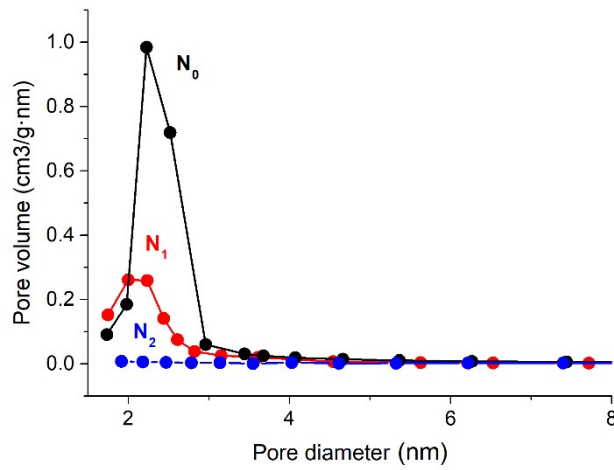


Figure 4S. Pore size distribution for N_0 - N_2 .

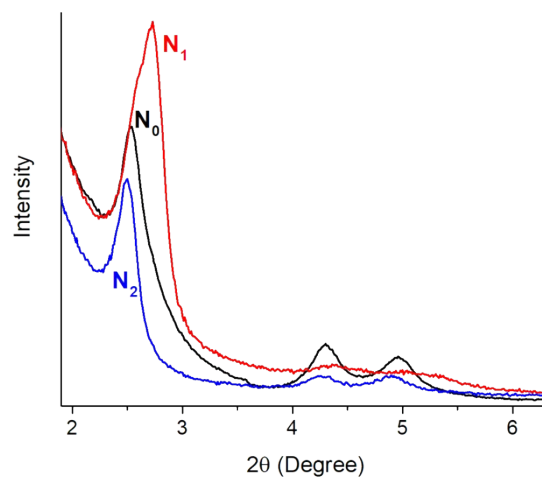


Figure 5S. X-ray diffraction analysis for N_0 - N_2 .

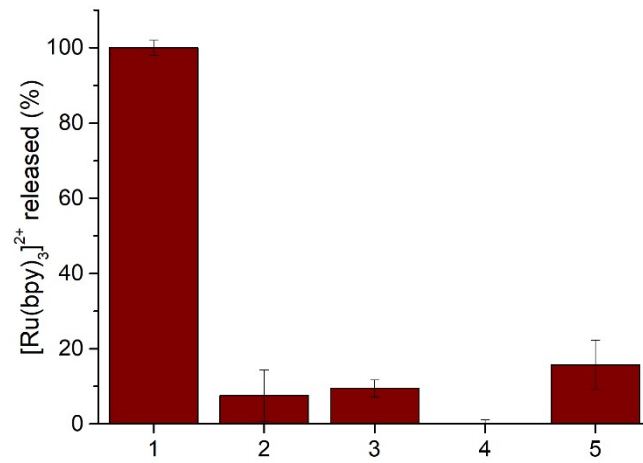


Figure 6S. Relative dye release from N₃ dispersion after 2 h incubation in 100 mmol/L sodium phosphate buffer, pH 7.5, containing 100 mmol/L of glucose (1), lactose (2), sucrose (3), galactose (4) or fructose (5).

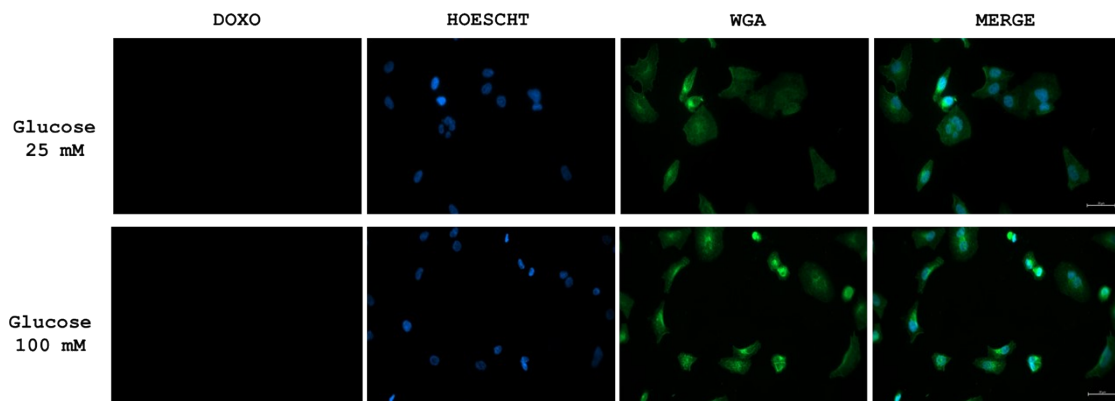


Figure 7S. Fluorescence microscopy images of HeLa cell without treatment with N_4 (control) in the presence of 25 mM and 100 mM glucose. Images were acquired after 4 h incubation for Alexa Flour-488 conjugated wheat germ agglutinin (WGA), Doxorubicin (DOXO), Hoechst and combined (Merge). Scale bar: 20 μ m.

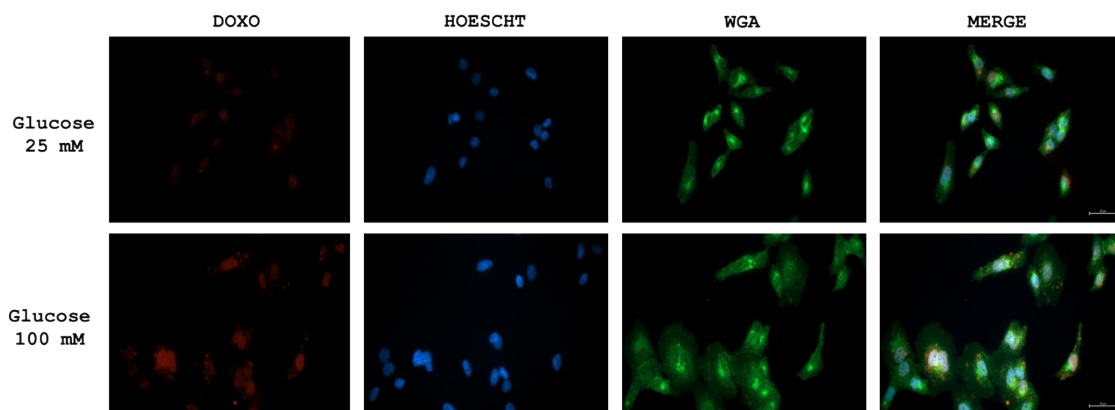


Figure 8S. Fluorescence microscopy images of HeLa cell and incubated with 100 μ g/ml N_4 in the presence of 25 mM and 100 mM glucose. Images were acquired after 4 h incubation for Alexa Flour-488 conjugated wheat germ agglutinin (WGA), Doxorubicin (DOXO), Hoechst and combined (Merge). Scale bar: 20 μ m.

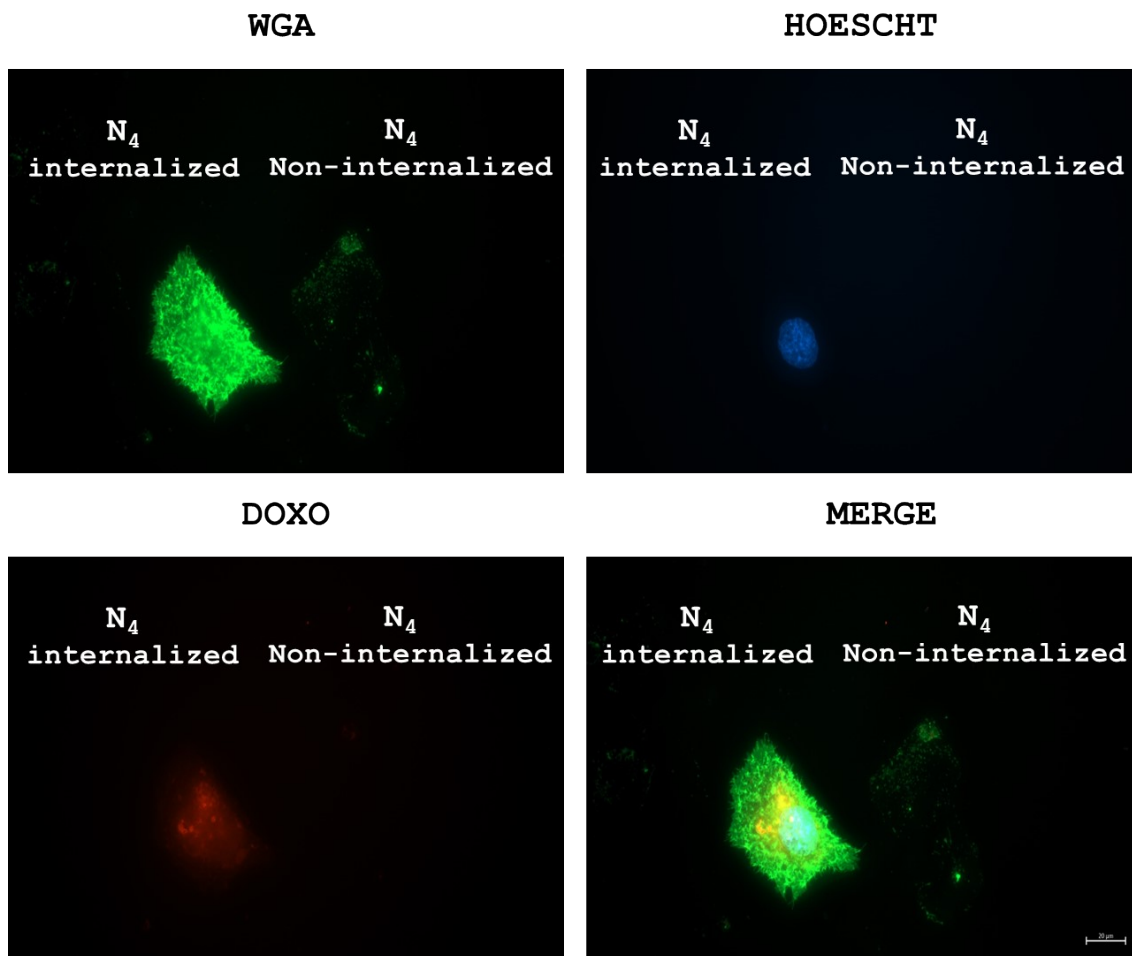


Figure 9S. Fluorescence microscopy images of HeLa cell and incubated with 100 $\mu\text{g}/\text{ml}$ N_4 in the presence of 100 mM glucose. Images were acquired after 4 h incubation for Alexa Flour-488 conjugated wheat germ agglutinin (WGA), Doxorubicin (DOXO), Hoechst and combined (Merge). Scale bar: 20 μm .