Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B

SUPPORTING INFORMATION

MgF_2 nanoparticles coated teeth inhibit *Streptococcus mutans* biofilm formation on teeth model

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Leaching was measured after coating teeth with MgF_2 NPs in two cases: after brushing the teeth and after incubation the teeth with *S. mutans* for 24 hours (after fixations and washing process for HRSEM preparations). For both cases the coated NPs show stability and no changes in the surface coating after the exposure to the medium or the brushing.

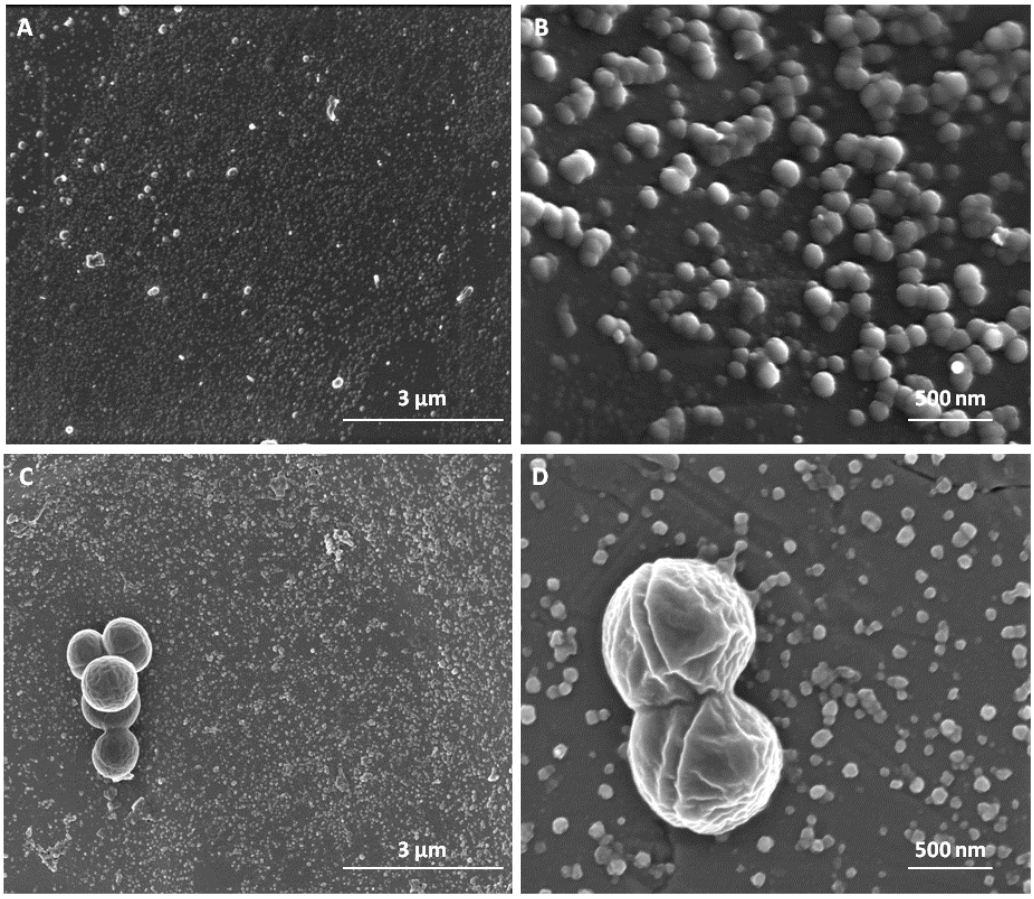

Figure. S1. HR-SEM images in two different magnification of NPs coating on teeth after treatments (A, B) of brushing the tooth surface with toothbrush (B , C) and after incubation with *S. mutans* for 24 hours followed by fixations and a washing process for HRSEM preparations.

Control with non-coated teeth which were not exposed to the medium or saliva, but just to the crystal violet (incubation with 1% CV for 15 min) was done to probe if the crystal violet would somehow react with the tooth (**Figure S2**). The measurement of the absorbance at OD_{595} of this control was found to be 0.0533 ±0.0057.

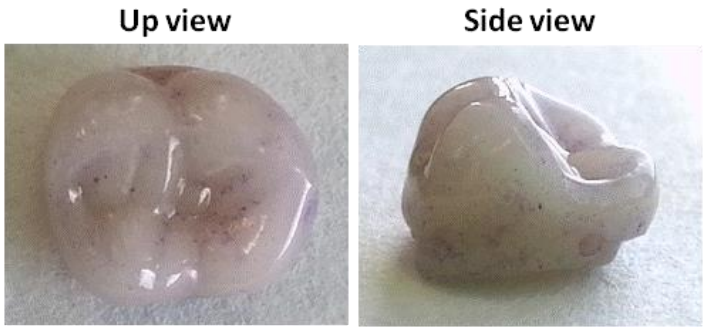

Figure. S2. Control with non-coated teeth which was exposed just to the crystal violet