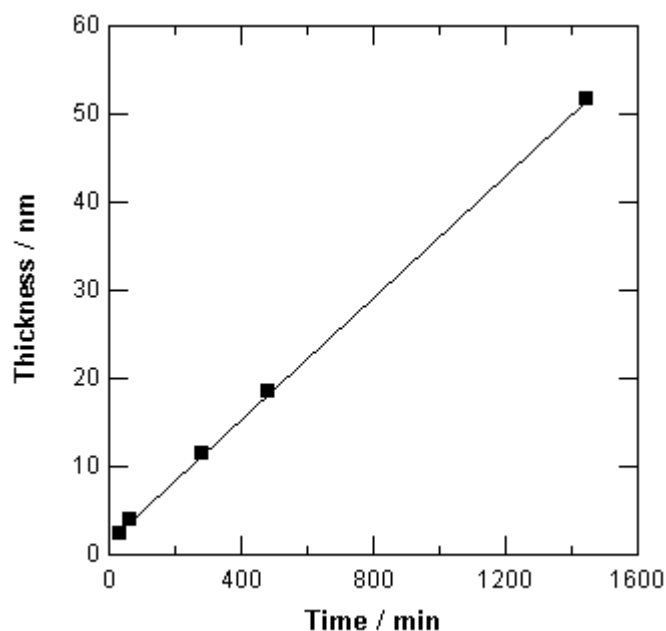


## Supporting Information

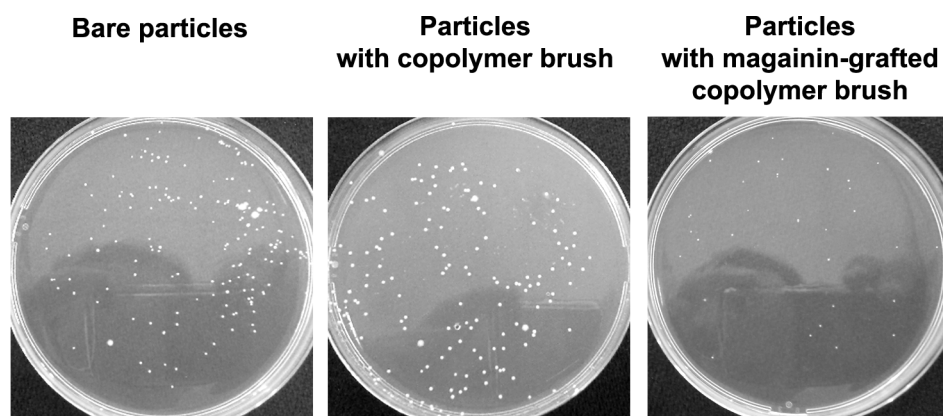
### Killing Microparticles Decorated by an Antimicrobial Peptide for the Easy Disinfection of Sensitive Aqueous Solutions

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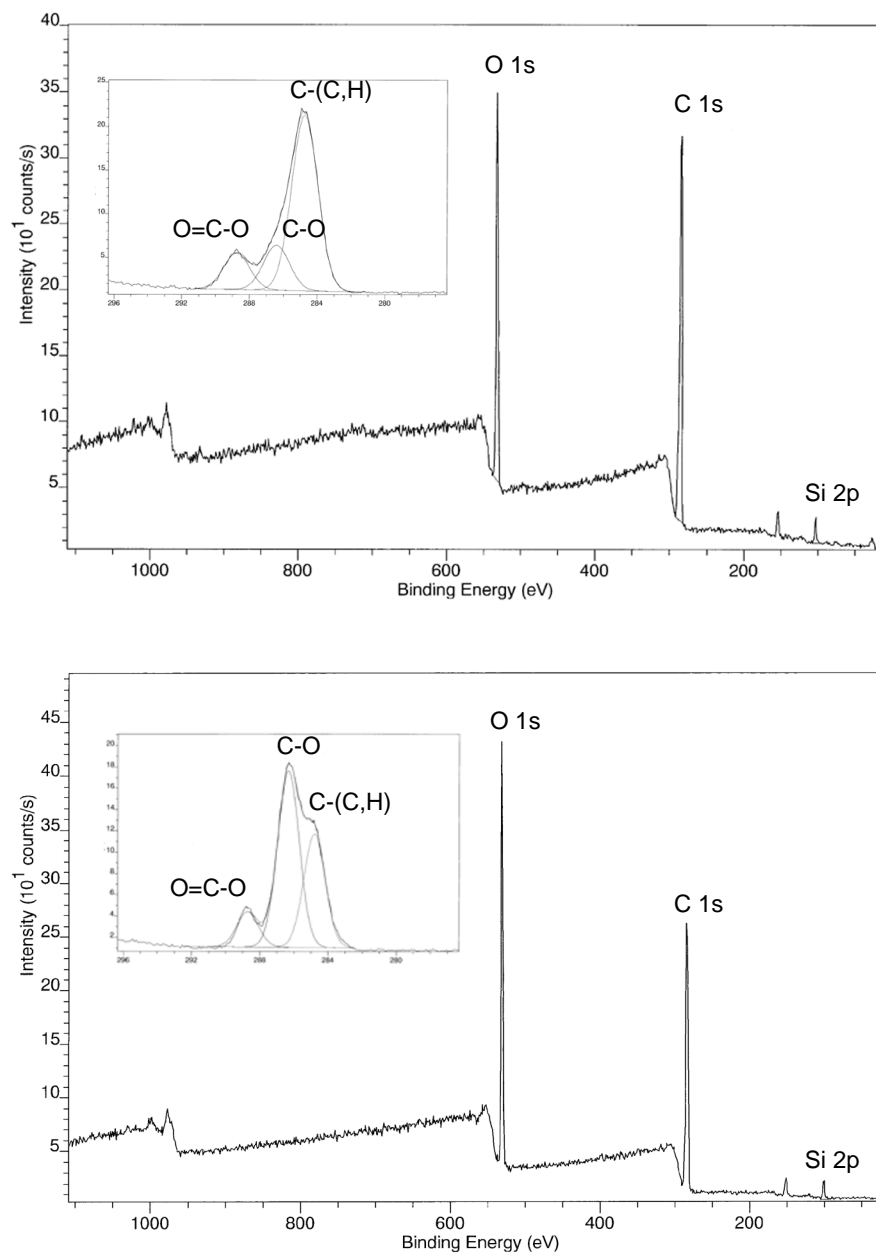
Laboratoire Polymères, Biopolymères, Surfaces (CNRS UMR 6270 & FR 3038) and Laboratoire de Différenciation et Communication Neuronale et Neuroendocrine (INSERM U982), PRIMACEN, IFRMP23, Université de Rouen, 76821 Mont Saint Aignan, France ; Institute of Condensed Matter and Nanosciences (Bio & Soft Matter), Université catholique de Louvain, Croix du Sud 1/4, 1348 Louvain-la-Neuve, Belgium.



**Figure S1.** Thickness of the poly(MEO<sub>2</sub>MA-*co*-HOEGMA) brush grown on silicon substrate as a function of the polymerization time. The thickness measurements were performed by ellipsometry.



**Figure S2.** Tests of bacterial culturability performed on *L. ivanovii* incubated in presence of modified and unmodified silica particles. The bacterial suspensions incubated with the particles were diluted 100 times before spreading onto Plate Count Agar for the tests.



**Figure S3.** XPS spectra (survey scans) measured for bare silica magnetic particles (top) and silica magnetic particles grafted by poly(MEO<sub>2</sub>MA-co-HOEGMA) brush (bottom). Insets: High resolution C 1s spectra.