Supporting Information

for

Void engineering to promote the self-cleaning properties of bactericidal zinc oxide nanopillar array coatings

Amir Hassanpour[1*], Marie-Christine Groleau[2], Dalya Messaoudi[1], Andrea A. Greschner[1], Katharina Kohlmann[1], Andreas Ruediger[1], Eric Déziel[2], Shuhui Sun[1], and Marc A. Gauthier[1*]

[1] Institut National de la Recherche Scientifique, Centre Énergie Matériaux Télécommunications, Varennes, QC J3X 1P7, Canada

[2] Institut National de la Recherche Scientifique (INRS), Centre Armand-Frappier Santé Biotechnologie, Laval, QC H7V 1B7, Canada

To whom correspondence should be addressed: amir.hassanpour@inrs.ca; marc.andre.gauthier@inrs.ca

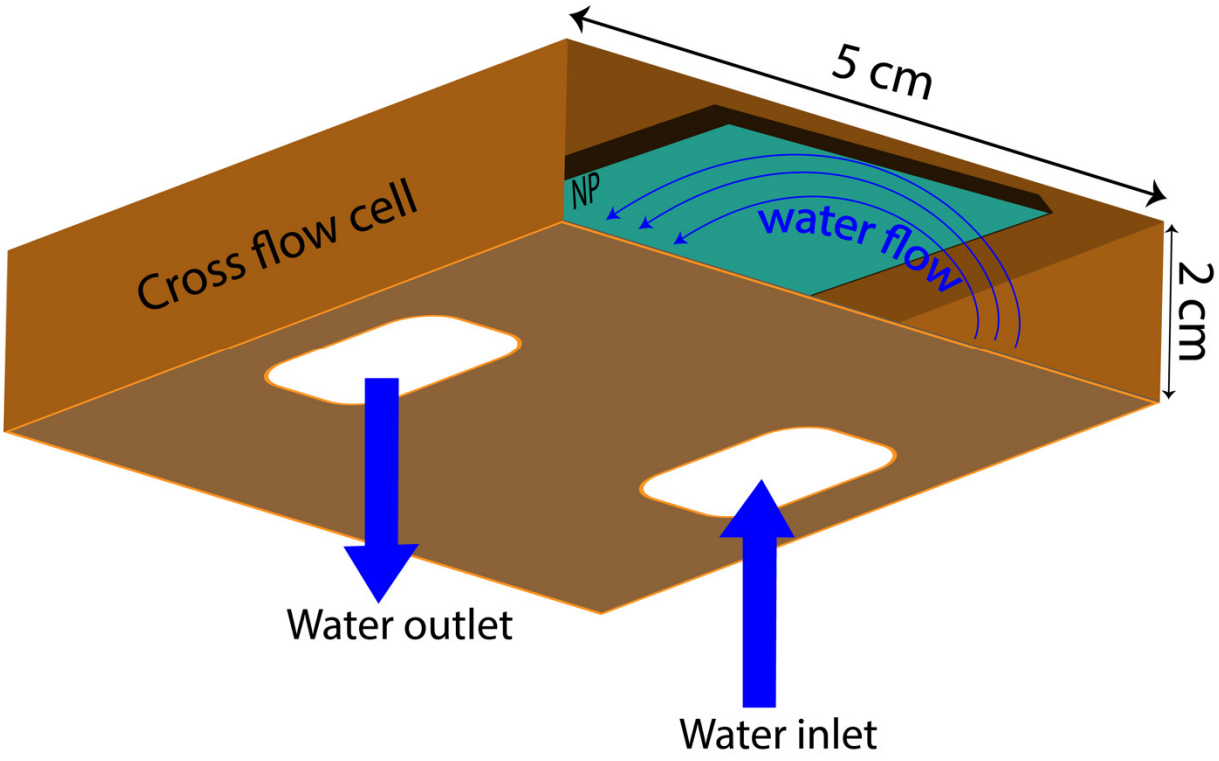

Figure S1. **Illustration of the cross-flow test setup.** The NP coating was exposed to tangential water flow for 6 hours. Tap water (Varennes, QC) with a pH of 7, pressure: 100 kPa, water flow rate 0.8–1 L/min, and temperature of 25 ºC.

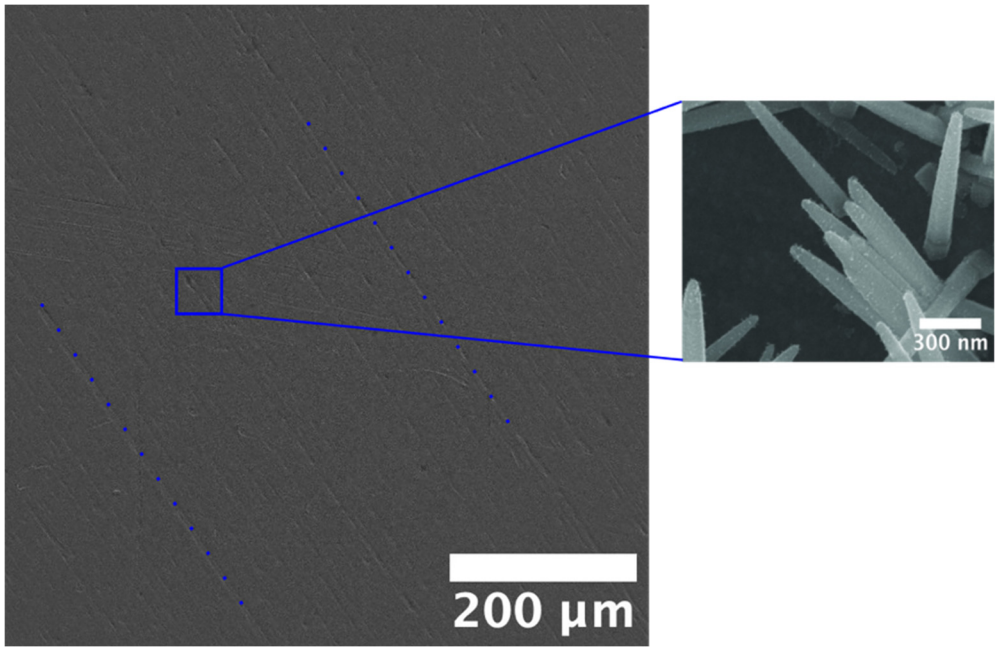

Figure S2. SEM images of NP coating after exposure to 6-h high-pressure tangential water flow. The blue dots show the groove, created by high-pressure tangential water flow. The inset shows the high-resolution image of the small area of NP coating.