Antimicrobial PDMS surfaces prepared through fast and oxygen-tolerant SI-SARA-ATRP, using Na_2SO_3 as a reducing agent

*Christian Andersen[1], Libor Zverina[1], Koosha Ehtiati[2], Esben Thormann[2], Hanne Mordhorst[3], Sünje J. Pamp[3], Niels J. Madsen[4], and Anders E. Daugaard[1]**

[1] Danish Polymer Centre, Department of Chemical and Biochemical Engineering, Technical University of Denmark, Søltofts Plads Building 229, 2800 Kgs. Lyngby, Denmark

[2] Department of Chemistry, Technical University of Denmark, Kemitorvet Building 207, 2800 Kgs. Lyngby, Denmark

[3] National Food Institute, Technical University of Denmark, Kemitorvet, Building 202, 2800 Kgs. Lyngby, Denmark

[4] Coloplast A/S, Holtedam 1-3, 3050 Humlebæk, Denmark

* Corresponding Author: A.E. Daugaard, adt@kt.dtu.dk

SUPPORTING INFORMATION

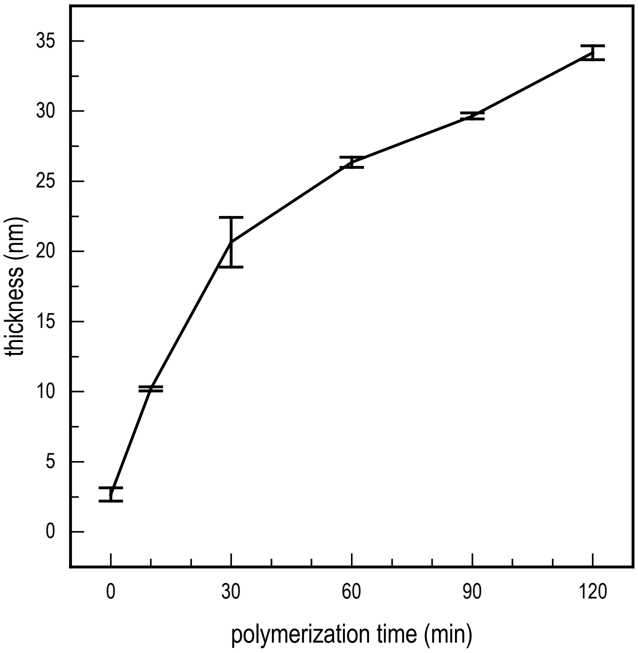

Figure S1 Grafted PDMAEMA layer thickness over polymerization time. SI-ARGET-ATRP on silicon wafer using sodium ascorbate as reducing agent.

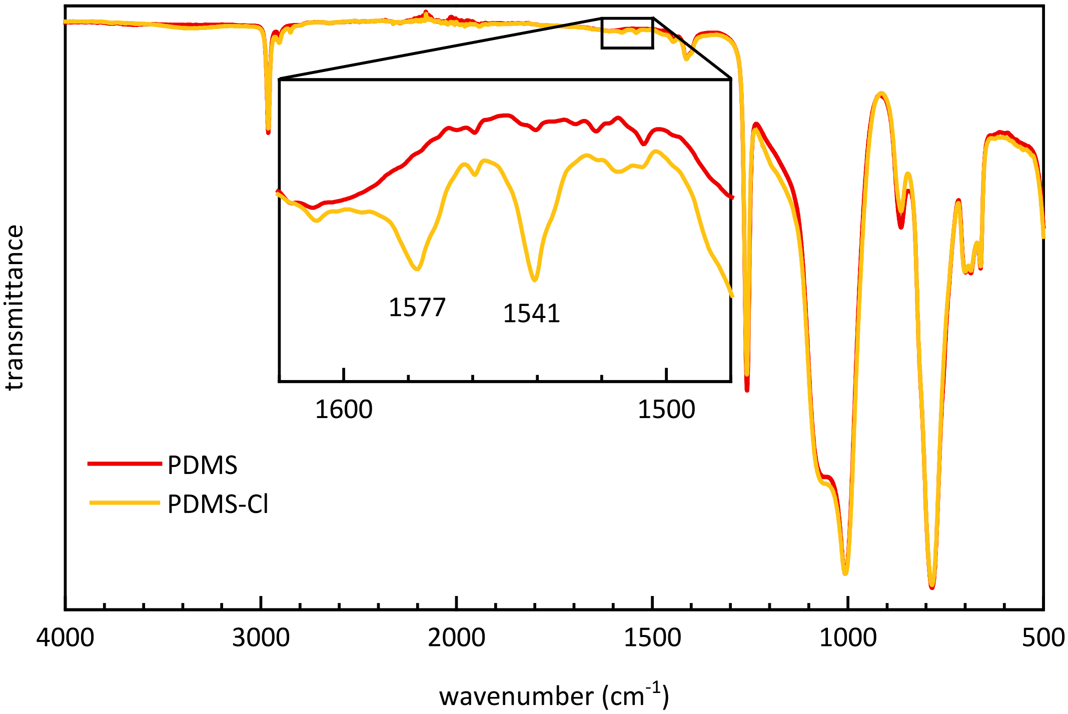

Figure S2 FT-IR of pristine PDMS and PDMS-Cl with the ATRP initiator attached. The zoom in shows two conjugated carbon double bond stretches in PDMS-Cl originating from a benzene ring, confirming the presence of the ATRP initiator on the surface.

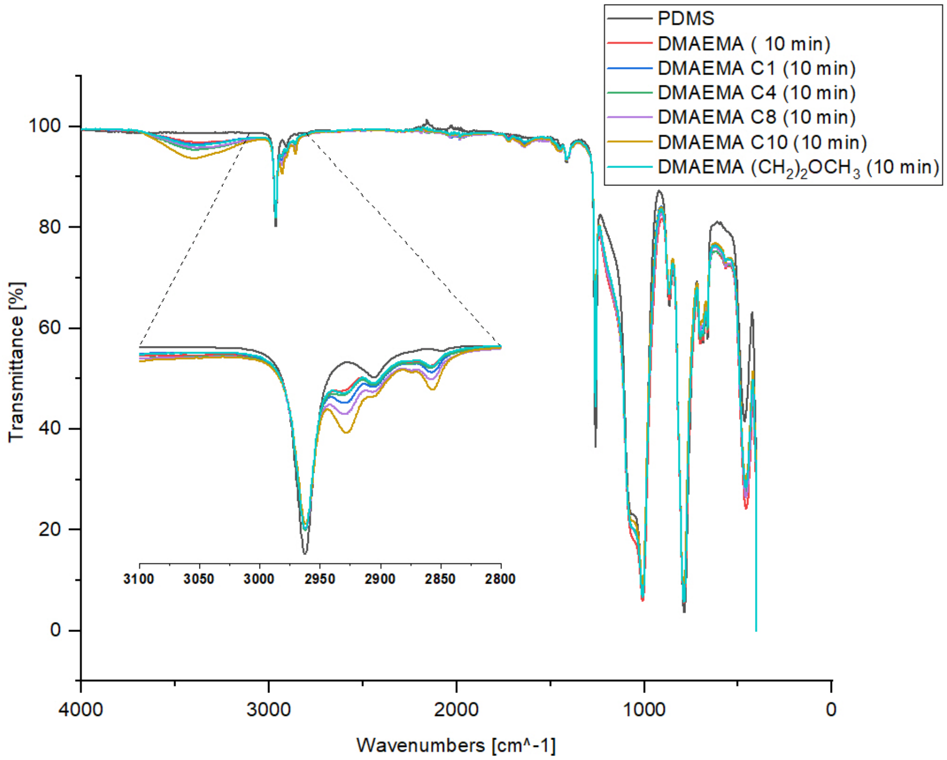

Figure S3 FT-IR of surface functionalized PDMS after 10 min polymerization time of DMAEMA. The zoom in shows C-H stretches originating from the various alkyl halides.

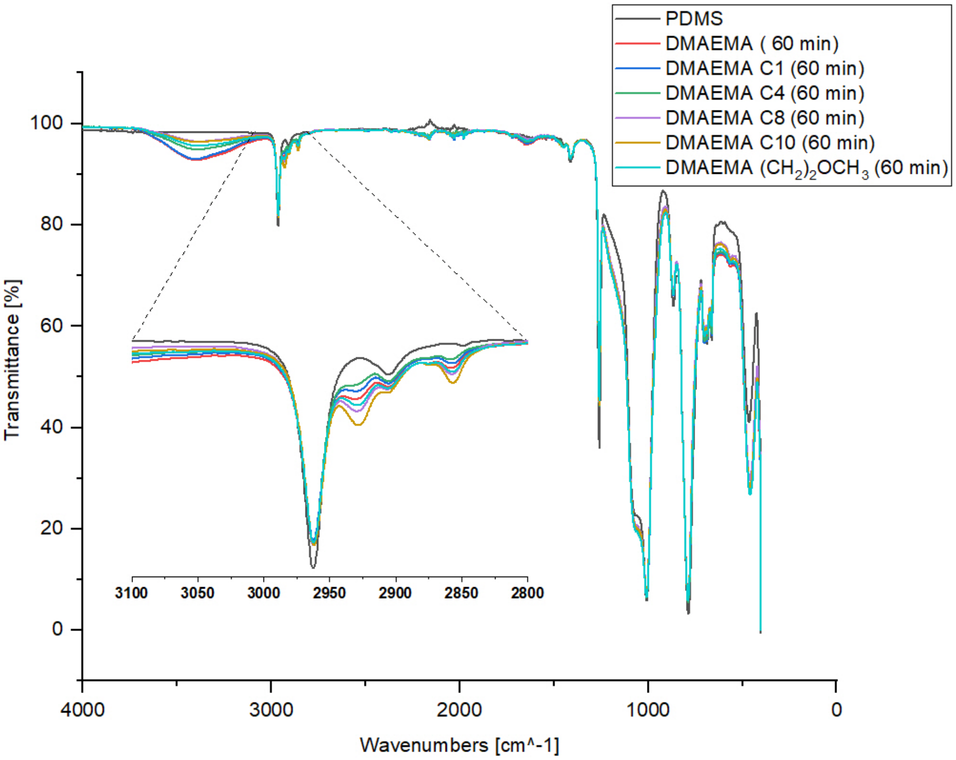

Figure S4 FT-IR of surface functionalized PDMS after 60 min polymerization time of DMAEMA. The zoom in shows C-H stretches originating from the various alkyl halides.

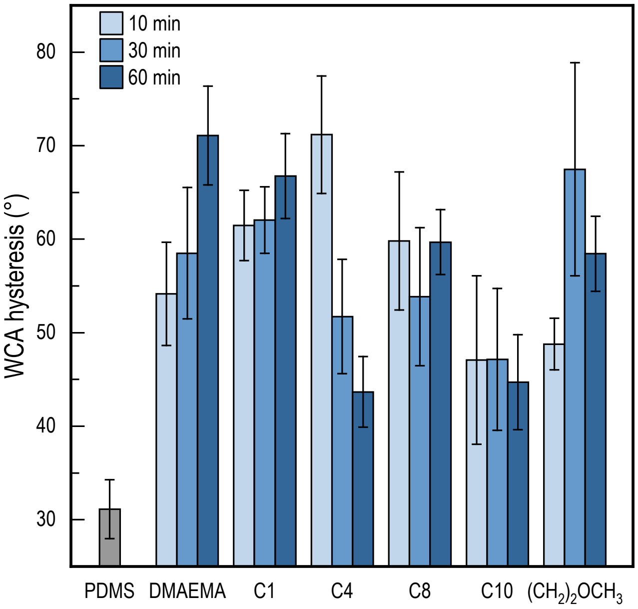

Figure S5 WCA hysteresis of surface functionalized PDMS.