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Figure 1. Oxygen consumption of Cupriavidus necator ATCC 17699 and Bacillus subtilis BBK006 treated with different sophorolipid biosurfactants. A. Cells of Cupriavidus necator ATCC 17699 (■) and *Bacillus subtilis* BBK006 (●) in absence of treatment. B. Cells of *Cupriavidus necator* ATCC 17699 in presence of sophorolipids S1 () and sophorolipids

S2 ($\mathbf{\nabla}$) and *Bacillus subtilis* BBK006 treated with S1 ($\mathbf{\blacksquare}$) and S2 ($\mathbf{\bullet}$). Treatment concentrations were 5% v/v.



Figure 2. Biofilm formation by *Bacillus subtilis* BBK006 on coverslips. Cells were stained with Syto9® and observed using a fluorescence microscope at 40X. (**A**) *Bacillus subtilis* BBK006 biofilms after 48h as a control. (**B**) After 30min treatment in the presence of Sophorolipids 5 % v/v on 48h preformed biofilms. The scale bar represents 10µm.

B

Control (untreated cells) Cells treated with S1 (5% v/v) A B 100 µm 300 µm С D 50 µm Е F 10 µm

Figure 3. Scanning electron micrographs showing attachment and biofilm formation by Bacillus subtilis BBK006 (A) and and a mixed culture between Bacillus subtilis BBK006 and Staphylococcus aureus ATCC 9144 (C and E) with an expose of the EPS substance

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encapsulating the cells (*arrows*) and cells of *Bacillus subtilis* BBK006 (B) and a mixed culture of *Bacillus subtilis* BBK006 and *Staphylococcus aureus* ATCC 9144 (D and F) treated with S1 5% v/v showing cells disruption with outporing of cytoplasmatic content (*arrows*). The magnification for A = 300 μ m, B = 100 μ m, C and D = 50 μ m and E and F = 10 μ m. Note the extracellular matrix encapsulating cells in images E and F of *Bacillus subtilis* BBK006 and *Staphylococcus aureus* ATCC 9144 (D and F) treated with S1. The magnification for A = 300 μ m, B = 100 μ m, C and D = 50 μ m and E and F = 10 μ m.