

Supplementary materials for

**Boron derivatives accelerate biofilm formation of recombinant *Escherichia coli* via
increasing quorum sensing system autoinducer-2 activity**

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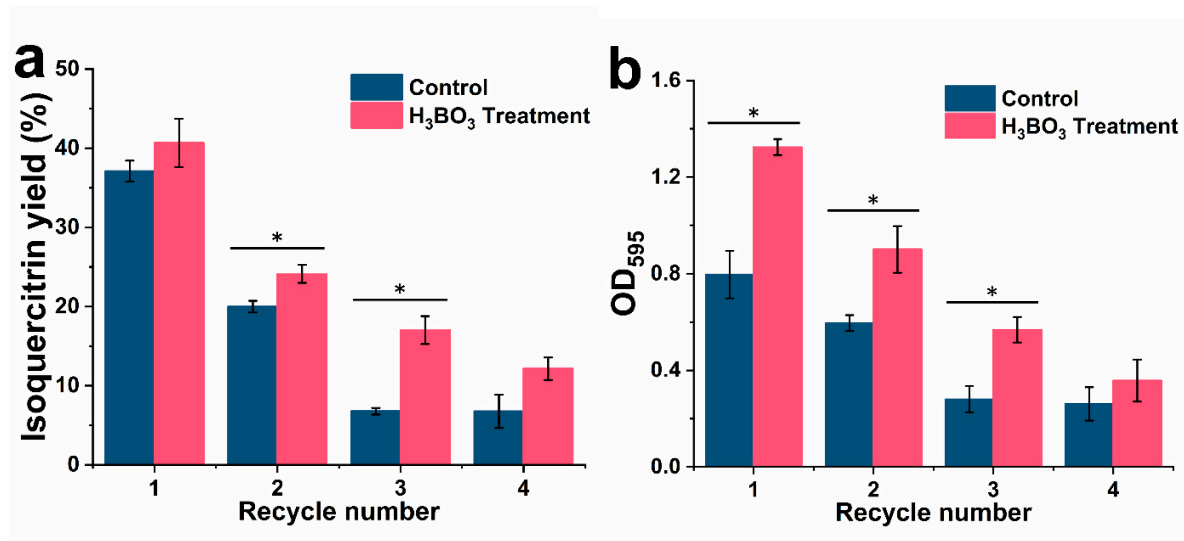


Figure S1 Reusability of boron treated biofilm catalyst on the yield of isoquercitrin (a) and biofilm biomass (b). Reaction conditions: substrate concentration 0.05 g/L; temperature 40°C, each reaction cycle 2.5 h. * $p < 0.05$: significant compared with the control.

Table S1. Primers used for qRT-PCR.

| Primers | Sequence (5' to 3') | bp | GenBank ccession No. |
|----------------|-------------------------|-----|----------------------|
| <i>rfaP</i> -F | GCGGCACGACCCTGAAAGAGAT | 171 | NP_312532.2 |
| <i>rfaP</i> -R | ACGAGGTTCTGGTCAGCGGATT | | |
| <i>wza</i> -F | TGACGGATACAGCCAGCGACAT | 148 | NP_310894.1 |
| <i>wza</i> -R | TCCAGCGGACTCCACTTTCAGT | | |
| <i>pgaA</i> -F | ACGCACCAGGAAATCAGGGACT | 178 | NP_415543.1 |
| <i>pgaA</i> -R | GCTGCCTGCTGCCATTCTTGT | | |
| <i>bcsA</i> -F | ACGCCGCACCACTTCTTCTCA | 157 | NP_417990.4 |
| <i>bcsA</i> -R | GACGAATCACCGCACAGGAACC | | |
| <i>luxS</i> -F | GCTGCTCATCTGGCGTACCAAT | 175 | NP_417172.1 |
| <i>luxS</i> -R | TGCGTGCCGAACAAAGAAGTGA | | |
| <i>lsrB</i> -F | GTGAGAGTGCTGACCTGGGACT | 108 | NP_310150.1 |
| <i>lsrB</i> -R | CGCCGCCATATCCACCAACAT | | |
| <i>aphA</i> -F | CGCTCGTGGTATCCGCATTCTG | 118 | NP_418479.1 |
| <i>aphA</i> -R | CGCTCTCCCGCTCTGTCAAGTAT | | |
| <i>motB</i> -F | TCCACTGGCGACTGCGGTTA | 125 | NP_416403.1 |
| <i>motB</i> -R | GCTCTTCGATGTTTCGGCTGCTT | | |
| <i>csgD</i> -F | ACAGCACGGAATCAGTCCTCCT | 186 | NP_415558.1 |
| <i>csgD</i> -R | TTGCCCAGGAAACCGCTTGTG | | |
| <i>fimC</i> -F | ACGCTGATTAACCCGACACCCT | 106 | NP_418736.3 |
| <i>fimC</i> -R | TAACCGTGCTTTCGCCCATTGG | | |
| <i>dnaE</i> -F | GCGTTATGTCGGAGGCGTAAGG | 144 | WP_012815364.1 |
| <i>dnaE</i> -R | CGGTCATCCAGCGTGCAGATAC | | |