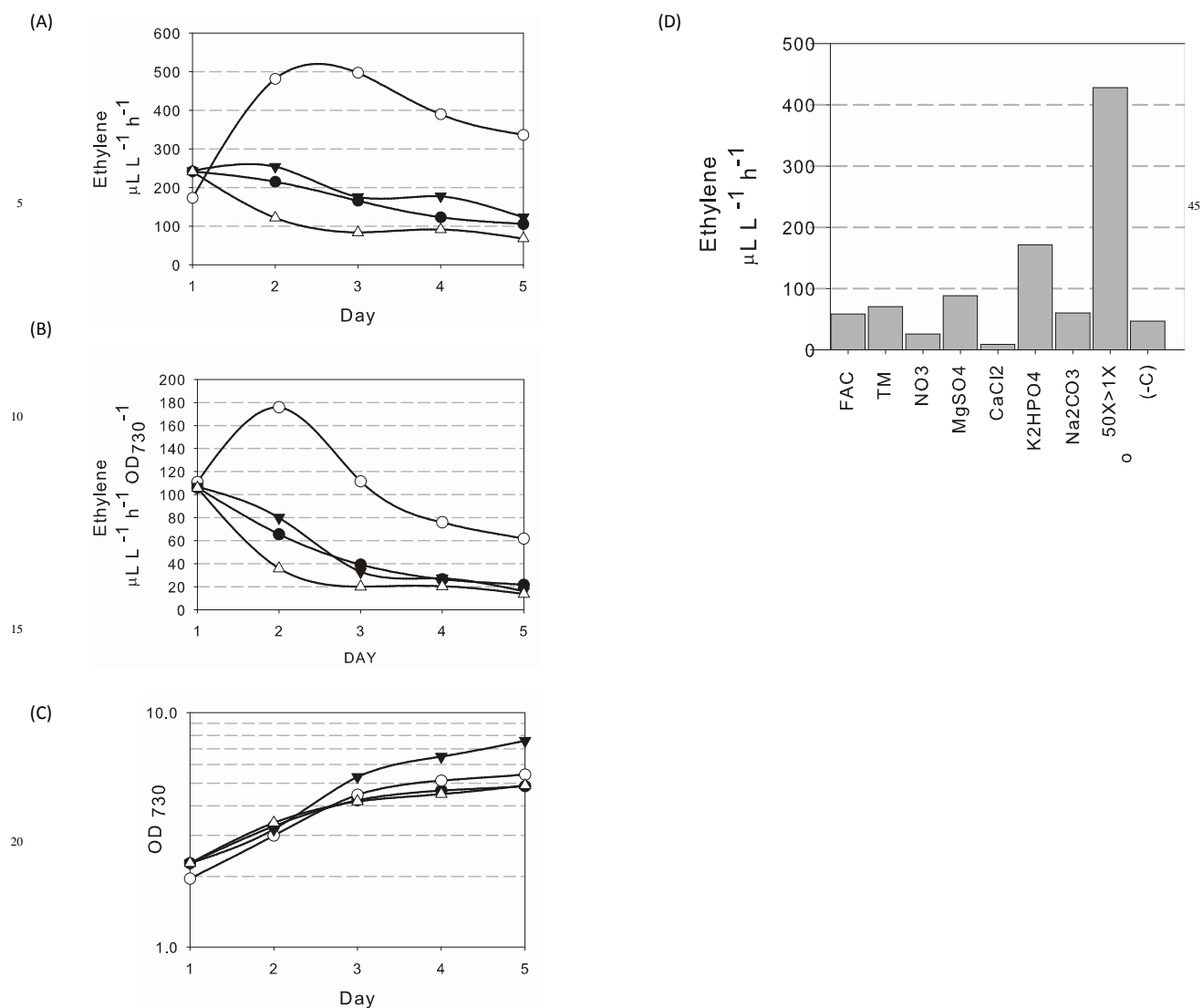


Supplemental Data

DNA sequence of the *P. syringae efe* gene modified for expression in *Synechocystis* 6803 (*Sy-efe*)

ATGACCAATTTGCAAACTTTTGAATTACCCACCGAAGTG
5 ACTGGCTGTGCCGCTGATATTTCCTTAGGTCGCGCCCT
GATTCAAGCCTGGCAGAAAGACGGCATTITTTCAAATTA
AAACCGATAGTGAACAAGACCGTAAAACCTCAAGAAGC
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CCTTTAAATCCAGTTGCGTGAGCGATTAACTTATTCTG
10 GCTACGTGGCCTCCGGTGAAGAAGTTACCGCTGGGAAA
CCCRACTTTCCCGAAATTTTTACCGTGTGTAAGATTT
ATCCGTGGGCGACCAACGGGTTAAAGCTGGATGGCCCT
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GAAAAGTATGAAAACTTTTATGGAAGAATTGGGGTTAG
15 CCGGAGAACGCTTGTTAAAACCTGACCGCTTTGGGGTT
TGAAGTGGCCATTAATACCTTTACTGATTTGACCCGTGA
CGGATGGCATCACATGCGCGTGTACGTTTTCCCCCCC
AAACCTCCACTCTGAGTCGGGGCATTGGTGCCATACC
GATTATGGTCTGTTGGTGATTGCCGCTCAGGATGACGT
20 TGGCGGTCTGTACATTCGTCCCCCGTGGAAGGGGAAA
AACGGAATCGCAACTGGTTGCCCGGCGAAAGCTCTGC
CGGCATGTTTGAACATGACGAACCCTGGACCTTTGTTAC
CCCCACTCCCGGGGTGTGGACCGTTTTTCCCGGAGAT
ATTCTGCAATTTATGACCGGGGACAGTTACTGTCCACT
25 CCCCATAAAGTGAAATTGAATACCCGTGAACGGTTTG
CCTGTGCTTATTTTACGAACCAACTTTGAAGCCTCTG
CTTACCCCTTGTGTTGAACCCTCCGCCAATGAACGGATTC
ATTATGGCGAACACTTTACCAACATGTTTATGCGGTGCT
ACCCCGATCGCATTACCACTCAACGTATTAACAAAGAA
30 AACCGGTTAGCCCATCTGGAAGATTTGAAAAAATACAG
TGACACCCGCGCTACTGGTAGCGATTACAAAGATCAT
GATGGCGATTACAAAGATCACGACATCGATTACAAAGA
TGATGATGATAAATAA



Supplemental Figure 1

Effect of various growth conditions on total (a) and specific (b) ethylene production, and growth (c). Closed circles – untreated control, open circles – resuspension in an equal volume of fresh BG11 medium, closed triangle – high light ($120 \mu\text{mol photons m}^{-2} \text{s}^{-1}$), open triangle – 5mM $\text{NH}_4/10\text{mM TES}$. (d) Effect of resupplying individual media components at the concentrations used in 1X BG11 to a culture that had ceased ethylene production. TM- BG11 trace minerals, FAC – ferric ammonia citrate. 50X>1X indicates that 50X BG11 concentrate was diluted to 1X into the culture. The –C was left untreated. Ethylene production was measured 24 h after the indicated treatment.