



Figure S1: pH monitored at the beginning and the end of the AHL-degradation tests. H₂O: a negative control in which the cell suspension was replaced with water. DC: A dead-cell control, in which A12 killed by microwaving served as another negative control.

Table S1: Concentration of cell suspensions of A9, A12, B11, and D3 in the AHL-degradation tests. Values shown are OD₆₀₀.

QQ bacteria	C6	C8	C10	C12	3-oxo-C6	3-oxo-C8	3-oxo-C10	3-oxo-C12
A9	0.73	0.92	0.73	0.80	1.01	0.81	0.73	0.80
A12	0.71	0.88	0.72	0.80	1.10	0.81	0.76	0.83
B11	0.68	0.91	0.67	0.81	1.03	0.80	0.75	0.81
D3	0.71	0.89	0.72	0.81	1.03	0.79	0.75	0.80

Table S2. Acyl homoserine lactones used in this study

abbreviation in this study	chemical name	formula	chemical abstracts service (CAS) number
C4-HSL	N-butyryl-L-homoserine lactone	C ₈ H ₁₃ NO ₃	67605-85-0
C6-HSL	N-hexanoyl-L-homoserine lactone	C ₁₀ H ₁₇ NO ₃	147852-83-3
C8-HSL	N-octanoyl-L-homoserine lactone	C ₁₂ H ₂₁ NO ₃	147852-84-4
C10-HSL	N-decanoyl-L-homoserine lactone	C ₁₄ H ₂₅ NO ₃	177315-87-6
C12-HSL	N-dodecanoyl-L-homoserine lactone	C ₁₆ H ₂₉ NO ₃	137173-46-7
3-oxo-C6-HSL	N-(3-Oxohexanoyl)-L-homoserine lactone	C ₁₀ H ₁₅ NO ₄	143537-62-6
3-oxo-C8-HSL	N-(3-Oxooctanoyl)-L-homoserine lactone	C ₁₂ H ₁₉ NO ₄	147795-39-9
3-oxo-C10-HSL	N-(3-Oxodecanoyl)-L-homoserine lactone	C ₁₄ H ₂₃ NO ₄	147795-40-2
3-oxo-C12-HSL	N-(3-oxododecanoyl)-L-homoserine lactone	C ₁₆ H ₂₇ NO ₄	168982-69-2

Table S3: Nucleotide sequences of the 16S rRNA genes of bacterial isolates A9, A12, and B11.

Bacteria	Nucleotide sequence of 16S rRNA
A9 (1365 bp)	CGAGCGCCCCGCAAGGGGAGCGGCAGACGGGTGAGTAACGCGTGGGAACGTACCTTTTGTACGGAATAACTCAGGGA AACTTGTGCTAATACCGTATGTGCCCTTCGGGGGAAAGATTTATCGGCAAAGGATCGGCCCCGCTTGGATTAGCTAGTT GGTGAGGTAAAGGCTCACCAAGGCGACGATCCATAGCTGGTCTGAGAGGATGATCAGCCACACTGGGACTGAGACACG GCCCAGACTCCTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGGCGCAAGCCTGATCCAGCCATGCCGCGTGAGT GATGAAGGCCCTAGGGTTGTAAAGCTCTTTCACCGGTGAAGATAATGACGGTAACCGGAGAAGAAGCCCCGGCTAACT TCGTGCCAGCAGCCGCGGTAATACGAAGGGGGCTAGCGTTGTTTCGGATTACTGGGCGTAAAGCGCACGTAGGCGGAC TTTTAAGTCAGGGGTGAAATCCCGGGGCTCAACCCCGAACTGCCTTTGATACTGGAAGTCTTGAGTATGGTAGAGGTG AGTGGAATTCCGAGTGTAGAGGTGAAATTCGTAGATATTCGGAGGAACACCAAGTGGCGAAGGCGGCTCACTGGACCAT TACTGACGCTGAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGAATG TTAGCCGTTGGGGAGTTTACTCTTCGGTGGCGCAGCTAACGCATTAAACATTCCGCCTGGGGAGTACGGTCGCAAGATT AAAACCTCAAAGGAATTGACGGGGGGCCCGCACAAAGCGGTGGAGCATGTGGTTTAATTGCAAGCAACGCGCAGAACCTTA CCAGCCCTTGACATACCGGTGCGGACACAGAGATGTGTCTTCAGTTCGGCTGGACCGGATACAGGTGCTGCATGGCT GTCGTACAGCTCGTGTGCTGAGATGTTGGGTAAAGTCCCGCAACGAGCGCAACCCTCGCCCTTAGTTGCCAGCATTTAGTT GGGCACTCTAAGGGGACTGCCGGTGATAAGCCGAGAGGAAGGTGGGGATGACGTCAAGTCTCATGGCCCTTACGGGC TGGGCTACACACGTGCTACAATGGTGGTGACAGTGGGCAGCGAGCACGCGAGTGTGAGCTAATCTCCAAAAGCCATCT CAGTTCGGATTGCACTCTGCAACTCGAGTGCATGAAGTTGGAATCGCTAGTAATCGCGGATCAGCATGCCGCGGTGAAT ACGTTCCCGGGCCTTGACACACCKMCCGTCACACCATGGGAGTTGGTTTACCCGAAGGCGCTGTGCTAACCGCAAGG AGGCAGGCGACCACGGTAGGGTCAGCGACTG
A12 (1398 bp)	AGCTTGCTCTTATGAAGTAGCGGCGGACGGGTGAGTAACACGTGGGTAACCTGCCATAAGACTGGGATAACTCCGGG AAACCGGGGCTAATACCGGATAACATTTTGAACCGCATGGTTTCGAAATTGAAAGGCGGCTTCGGCTGTCACTTATGGAT GGACCCGCGTCGCATTAGCTAGTTGGTGAGGTAACGGCTCACCAAGGCAACGATGCGTAGCCGACCTGAGAGGGTGAT CGGCCACACTGGGACTGAGACACGGCCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCCGCAATGGACGAAAG TCTGACGGAGCAACGCCGCGTGAGTGATGAAGGCTTTCGGGTCTGTAACCTCTGTTGTTAGGGAAGAACAAAGTGCTAGT TGAATAAGCTGGCACCTTGACGGTACCTAACCAGAAAAGCCACGGTAACTACGTGCCAGCAGCCGCGGTAATACGTAG GTGGCAAGCGTTATCCGGAATTATTGGGCGTAAAGCGCGCGCAGGTGGTTTCTTAAGTCTGATGTGAAAGCCACGGCT CAACCGTGAGGGTCATTGGAAGTGGGAGACTTGAGTGCAGAAGAGGAAAGTGAATTCCATGTGTAGCGGTGAAAT GCGTAGAGATATGGAGGAACACCAGTGGCGAAGGCGACTTCTGGTCTGTAAGTACACTGAGGCGCGAAAGCGTGGG GAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGAGTGCTAAGTGTAGAGGGTTTCCGCCCTTTAG TGCTGAAGTTAACGCATTAAGCACTCCGCCTGGGGAGTACGGCCGCAAGGCTGAAACTCAAAGGAATTGACGGGGGCC CGCACAAAGCGGTGGAGCATGTGGTTTAATTGCAAGCAACGCGAAGAACCTTACCAGGTCTTGACATCTCTGAAAACCC TAGAGATAGGGCTTCTCCTTCGGGAGCAGAGTGACAGGTGGTGATGGTTGTCGTACGCTCGTGTGCTGAGATGTTGGGT TAAGTCCCAGCAACGAGCGCAACCCCTTGATCTTAGTTGCCATCATTAAAGTTGGGCACTCTAAGGTGACTGCCGGTGACAA ACCGGAGGAAGGTGGGGATGACGTCAAAATCATCATGCCCCCTATGACCTGGGCTACACACGTGCTACAATGGACGGTA CAAAGAGCTGCAAGACCGCGAGGTGGAGCTAATCTCATAAAACCGTTCTCAGTTCCGATTGTAGGCTGCAACTCGCCTA CATGAAGCTGGAATCGCTAGTAATCGCGGATCAGCATGCCGCGGTGAATACGTTCCCGGGCCTTGTAACACACCGCCCT CACACCACGAGAGTTTGTAACACCCGAAGTCGGTGGGGTAACCTTTTTGGAGCCASCCGCCT
B11 (1330 bp)	AGAAGTTAGCGGCGGACGGGTGARTAACACGTGGGTAACCTGCCATAAGACTGGGATAACTCCGGGAAACCGGGGCT AATACCGGATAAYATTTTGAAGTGCATGGTTCGAAATTGAAAGGCGGCTTCGGCTGTCACTTATGGATGGACCCGCGTC GCATTAGCTAGTTGGTGAGGTAACGGCTCACCAAGGCAACGATGCGTAGCCGACCTGAGAGGGTGATCGGCCACACTG GACTGAGACACGGCCAGACTCCTACGGGAGGCAGCAGTAGGGAATCTTCCGCAATGGACGAAAGTCTGACGGAGC AACGCCGCGTGAGTGATGAAGGCTTTCGGGTCTGTAACCTCTGTTGTTAGGGAAGAACAAAGTGCTAGTTGAATAAGCTG GCACCTTGACGGTACCTAACCAGAAAGCCACGGCTAACTACGTGCCAGCAGCCGCGGTAATACGTAGGTGGCAAGCGT TATCCGGAATTATTGGGCGTAAAGCGCGCGCAGGTGGTTTCTTAAGTCTGATGTGAAAGCCCACGGCTCAACCGTGAG GGTCATTGGAAACTGGGAGACTTGAGTGCAGAAGAGGAAAGTGAATTCCATGTGTAGCGGTGAAATGCGTAGAGATA TGGAGGAACACCAGTGGCGAAGGCGACTTCTGGTCTGTAAGTACACTGAGGCGCGAAAGCGTGGGGAGCAAAACAG GATTAGATACCCTGGTAGTCCACGCCGTAAACGATGAGTGCTAAGTGTAGAGGGTTTCCGCCCTTTAGTGCTGAAGTTA ACGCATTAAGCACTCCGCCTGGGGAGTACGGCCGCAAGGCTGAAACTCAAAGGAATTGACGGGGGGCCCGCACAAAGCG GTGGAGCATGTGGTTTAATTGCAAGCAACGCGAAGAACCTTACCAGGTCTTGACATCTCTGAAAACCTTAGAGATAGG GCTTCTCCTTCGGGAGCAGAGTGACAGGTGGTGATGGTTGTCGTACGCTCGTGTGCTGAGATGTTGGGTAAAGTCCCGC AACGAGCGCAACCCCTTGATCTTAGTTGCCATCATTAAAGTTGGGCACTCTAAGGTGACTGCCGGTGACAAACCGGAGGAA GGTGGGGATGACGTCAAAATCATCATGCCCCCTATGACCTGGGCTACACACGTGCTACAATGGACGGTACAAAGAGCTGC AAGACCGCGAGGTGGAGCTAATCTCATAAAACCGTTCTCAGTTCGGATTGTAGGCTGCAACTCGCCTACATGAAGCTGG AATCGCTAGTAATCGCGGATCAGCATGCCGCGGTGAATACGTTCCCGGGCCTTGTAACACWCCGCCCCGTACACC