Supplementary Figure Legends (Gulvik & Buchan)

Fig. S1. Linear regression of temporally paired POB and benzoate concentrations derived from Figure 2 of *S. stellata* E-37 during simultaneous catabolism. Error bars represent the standard deviation of triplicate technical replicates.

Fig. S2. Gene neighborhoods of *pob* and *pca* operons from representative taxa. All neighborhoods are centered around *pcaHG* and drawn to scale. Each color represents a unique COG number (with the exception of PcaG and PcaH): PobA (COG0654), PcaH (COG3485), PcaG (COG3485), PcaB (COG0015), PcaC (COG0599), PcaD (COG0596), PcaK (COG2271), AraC-type PobR (COG2207), IclR-type PobR (COG1414), LysR-type PcaQ (COG0583) and conserved hypothetical protein [CHP] in *Roseobacter* (COG3246).

Fig. S3. Simultaneous catabolism of benzoate and POB by (A) *R. pomeroyi* DSS-3 and preferential POB consumption by (B) *V. paradoxus* EPS. Error bars for O.D. and substrate concentrations represent the standard deviation of biological replicates (n = 3) for each. O.D., Optical Density.

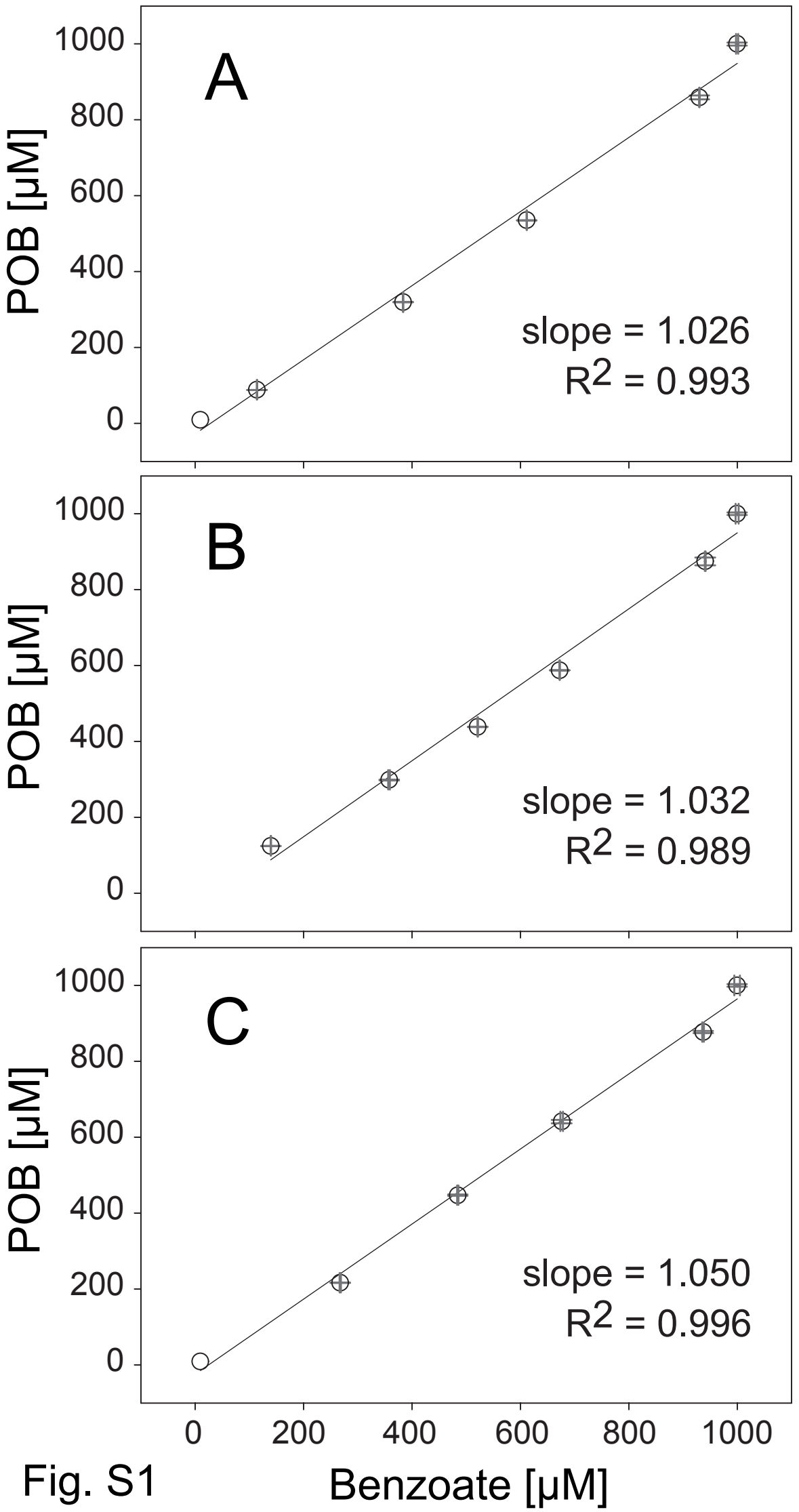
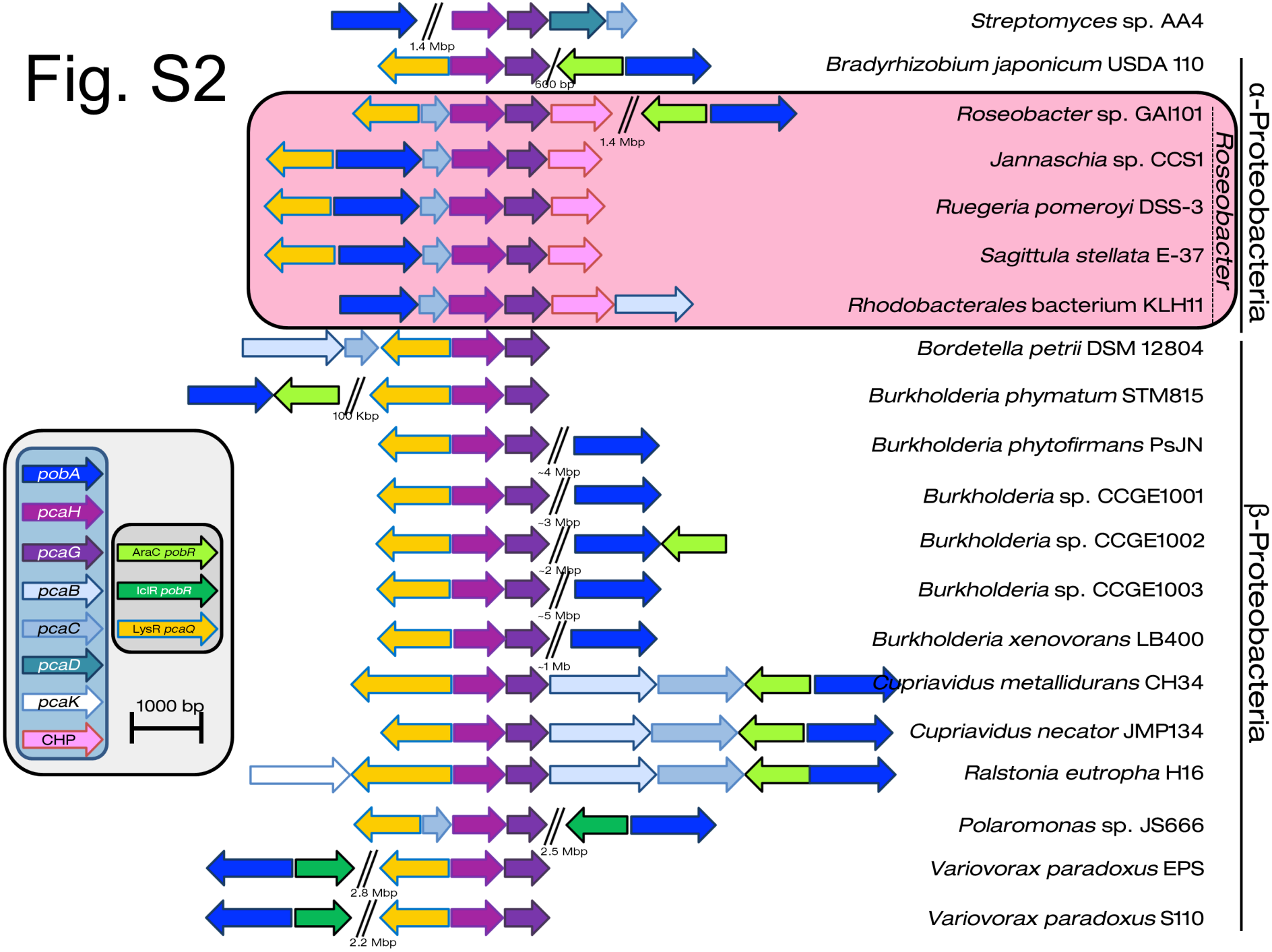

A
B
C
POB [µM]
POB [µM]
POB [µM]
1000
800
600
400
200
0
slope = 1.026
R2 = 0.993
slope = 1.032
R2 = 0.989
slope = 1.050
R2 = 0.996
0
200
400
600
800
1000
Benzoate [µM]

Fig. S1

Fig. S2


Streptomyces sp. AA4
Bradyrhizobium japonicum USDA 110
1.4 Mbp
600 bp
Roseobacter sp. GAI101
Jannaschia sp. CCS1
Ruegeria pomeroyi DSS-3
Sagittula stellata E-37
Rhodobacterales bacterium KLH11
1.4 Mbp
Roseobacter
α-Proteobacteria
Bordetella petrii DSM 12804
Burkholderia phymatum STM815
100 Kbp
Burkholderia phytofirmans PsJN
~4 Mbp
Burkholderia sp. CCGE1001
~3 Mbp
Burkholderia sp. CCGE1002
~2 Mbp
Burkholderia sp. CCGE1003
~5 Mbp
Burkholderia xenovorans LB400
~1 Mb
Cupriavidus metallidurans CH34
Cupriavidus necator JMP134
Ralstonia eutropha H16
Polaromonas sp. JS666
2.5 Mbp
Variovorax paradoxus EPS
2.8 Mbp
Variovorax paradoxus S110
2.2 Mbp
β-Proteobacteria
pobA
pcaH
pcaG
pcaB
pcaC
pcaD
pcaK
CHP
AraC pobR
IclR pobR
LysR pcaQ
1000 bp

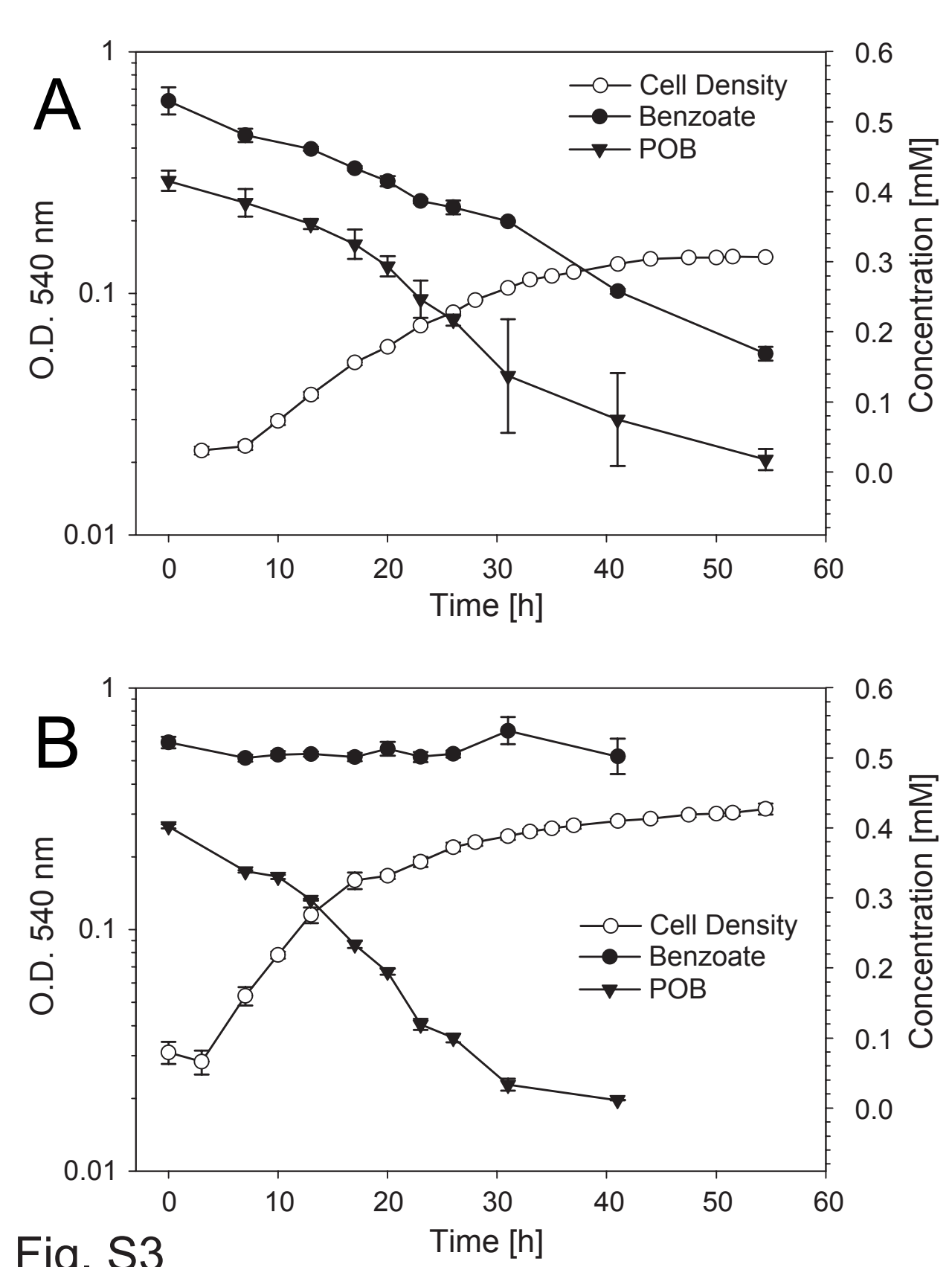

A
B
Cell Density
Benzoate
POB
O.D. 540 nm
Concentration [mM]
Time [h]
1
0.1
0.01
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0
10
20
30
40
50
60

Fig. S3