Accepted Manuscript

Potential of dissimilatory nitrate reduction pathways in polycyclic aromatic hydrocarbon degradation

Hugo Ribeiro, Trelita de Sousa, João P. Santos, António G.G. Sousa, Catarina Teixeira, Maria R. Monteiro, Paula Salgado, Ana P. Mucha, C. Marisa R. Almeida, Luís Torgo, Catarina Magalhães

PII: S0045-6535(18)30188-7

DOI: 10.1016/j.chemosphere.2018.01.171

Reference: CHEM 20752

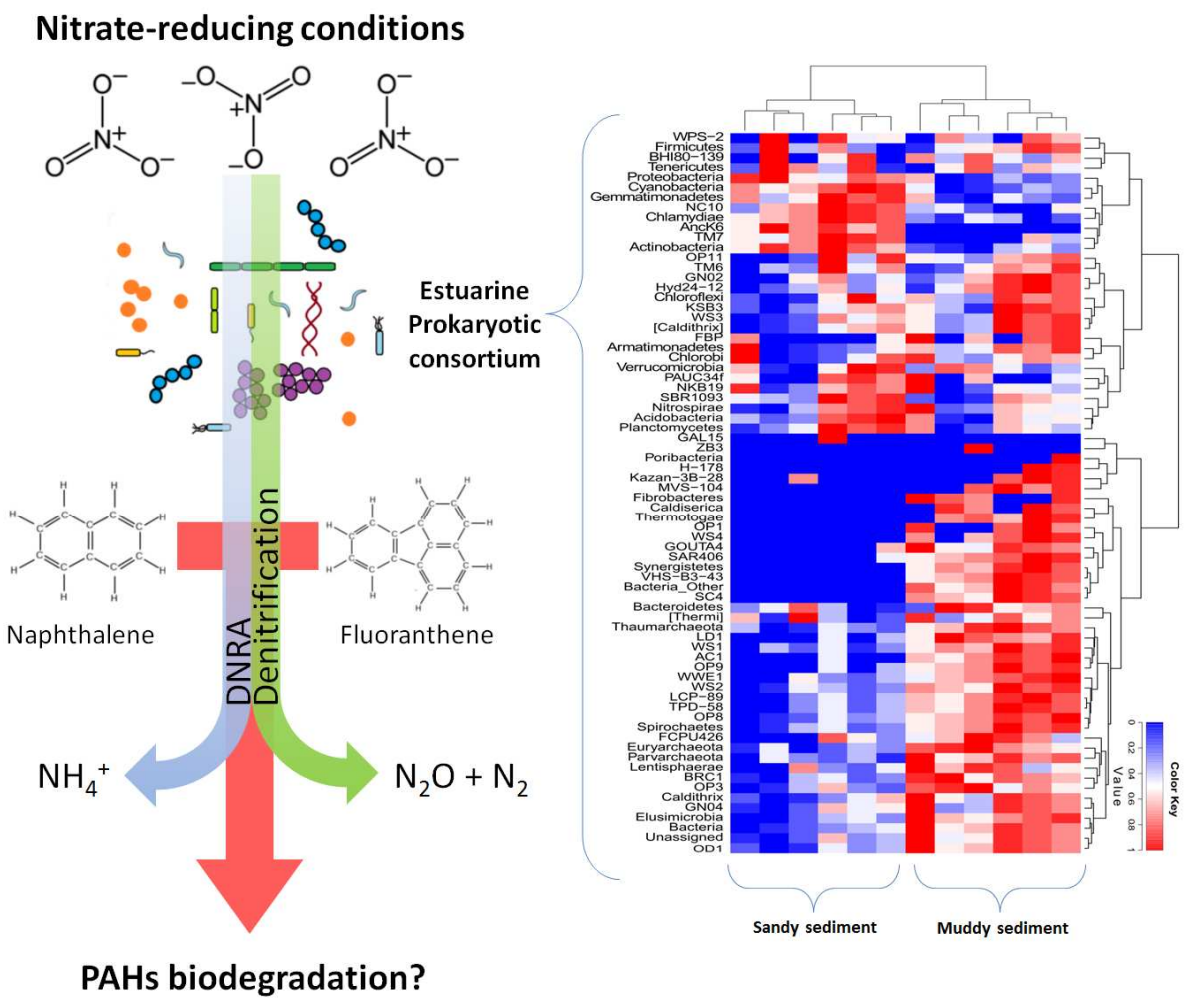
To appear in: *ECSN*

Received Date: 11 September 2017

Revised Date: 29 January 2018

Accepted Date: 31 January 2018

Please cite this article as: Ribeiro, H., de Sousa, T., Santos, Joã.P., Sousa, Antó.G.G., Teixeira, C., Monteiro, M.R., Salgado, P., Mucha, A.P., Almeida, C.M.R., Torgo, Luí., Magalhães, C., Potential of dissimilatory nitrate reduction pathways in polycyclic aromatic hydrocarbon degradation, *Chemosphere* (2018), doi: 10.1016/j.chemosphere.2018.01.171.


Nitrate-reducing conditions
Estuarine
Prokaryotic
consortium
Naphthalene
Fluoranthene
DNRA
Denitrification
NH_4^+
$N_2O + N_2$
PAHs biodegradation?
WPS−2
Firmicutes
BHI80−139
Tenericutes
Proteobacteria
Cyanobacteria
Gemmatimonadetes
NC10
Chlamydiae
AncK6
TM7
Actinobacteria
OP11
TM6
GN02
Hyd24−12
Chloroflexi
KSB3
WS3
[Caldithrix]
FBP
Armatimonadetes
Chlorobi
Verrucomicrobia
PAUC34f
NKB19
SBR1093
Nitrospirae
Acidobacteria
Planctomycetes
GAL15
ZB3
Poribacteria
H−178
Kazan−3B−28
MVS−104
Fibrobacteres
Caldiserica
Thermotogae
OP1
WS4
GOUTA4
SAR406
Synergistetes
VHS−B3−43
Bacteria_Other
SC4
Bacteroidetes
[Thermi]
Thaumarchaeota
LD1
WS1
AC1
OP9
WWE1
WS2
LCP−89
TPD−58
OP8
Spirochaetes
FCPU426
Euryarchaeota
Parvarchaeota
Lentisphaerae
BRC1
OP3
Caldithrix
GN04
Elusimicrobia
Bacteria
Unassigned
OD1
Color Key
Value
0
02
04
06
08
1
Sandy sediment
Muddy sediment