

Actual tasks on bioremediation

Augmentation vs. stimulation

Consortium dilemma

Metabolic power

Fermentation

Enhancement

New view on praxis

R&D

Alternative approaches in bioremediation engineering

Contaminated Sites in Bratislava, 2013

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Bioaugmentation or biostimulation?
Microbial consortiums or an unique superstrain?
Enhancement of which processes in contaminated environment?

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Doom & gloom?

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R&D

- + unique properties of some strains
- + perfect description of metabolism
- + promising diagnostic and monitoring
- ability to survive under real conditon
- process deficiencies – supporting
- weak evidences of recolonisation
- ? ecological competition operating
- ? holistic markers

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Consortional dilemma

adaptation

biofilm defence

syntrophy

oligotrophy

Lorem

Ipsum

Dolor

Metabolic power

Sources of **reducing potential** (electrons)

Sources of **energy**

Carbon sources and the supply of other building compounds

TEA
Redox magic
OXYGEN
NITRATE
IRON
MANGANESE
SULFATE
CARBON
DIOXID
HUMIC ACID
CHROMIUM
PCE TCE DCE...

FERMENTATION SYNTROPHY OLIGOTROPHY

VFA
carbon
dioxid
hydrogen
pH

Amet

Consectetur

Adipisci

Elit

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diagnostic

technological tools

markers

anaerobic microbiology

complex interpretation

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Syntrophic complexity

Functional scale

Modern methods

Microbial geography

research & development

EPS
biotechnologie

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biotechnologie