

Potential Microbial Metabolic Processes:

e- donor	e- acceptor	C source	Organisms
Autolithotrophy			
H ₂	O ₂	CO ₂	Hydrogen oxidizers
HS ⁻ ,S ⁰ ,S ₂ O ₃ ⁻²	O ₂	CO ₂	Sulfur oxidizers
Fe ⁺²	O ₂	CO ₂	Iron oxidizers
Mn ⁺²	O ₂	CO ₂	Manganese oxidizers
NH ₄ ⁺ ,NO ₂ ⁻	O ₂	CO ₂	Nitrifiers
HS ⁻ ,S ⁰ ,S ₂ O ₃ ⁻²	NO ₃ ⁻	CO ₂	Denitrifying/S-oxidizers
H ₂	NO ₃ ⁻	CO ₂	Hydrogen oxidizers
H ₂	S ⁰ ,SO ₄ ⁻²	CO ₂	Sulfate Reducers (SRBs)
H ₂	CO ₂	CO ₂	Methanogens & Acetogens

Heteroorganotrophy

Org.C	O ₂	Org.C	Aerobic Heterotrophy
Org.C	NO ₃ ⁻	Org.C	Denitrifyers
Org.C	S ⁰ ,SO ₄ ⁻²	Org.C	Sulfate Reducers (SRBs)
Org.C	Org.C	Org.C	Fermenters

Methylotrophy

CH ₄ ,(C-1's)	O ₂ ,SO ₄ ⁻²	CH ₄ ,CO ₂ ,CO	Methane (C-1) oxidizers
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