Carbon 49 taxonomic groups and 418 distinct MAGs Formaldehyde oxidation Formaldehyde Methylamine particulate methane methane production Formate oxidation methanol oxidation methane oxidation Reverse TCA Wood Ljundahl pathway Oxidation oxidation soluble cycle cycle 3HP/ 4HB 8 Thaumarchaeota -CP Bathyarchaeota -CP Verstratearchaeota -Euryarchaeota -Archaea CP Parvarchaeota -CP Altiarchaeota -Aenigmarchaeota -Woesearchaeota -CP Pacearchaeota -CP **DPANN** Archaea CP Handelsmanbacteria - CP Aminicemantes (OP8) - Sericytochromatia, Tanganyikabacteria - Cyanobacteria - Cyanobacteria - Elimicutes - Indicate - Actinobacteria - Actinobacteria - Gemmatimonadetes - Actinobacteria - Gemmatimonadetes - Actinobacteria - Gemmatimonadetes - CP WOR-3 - CP Zixibacteria - Ignavibacteria - Ignavibacteria - Calditrichaeota - Chilorobi - CP Eisenbacteria - Bacteroidetes - Klimatiellaeota - Chilorobi - CP WOR-2 Omnitrophica - Chilorobi - CP WOR-2 Omnitrophica - Chilorobi - CP WOR-2 Omnitrophica - Chilorobi - Planctomycetes - Planctomycetes (Phycisphaerae - Acidobacteria - CP Tectomicrobia - CP Hydrogenedentes - Alphaproteobacteria - CP Hydrogenedentes - Alphaproteobacteria - Gammabroteobacteria - CP Staskawiczpacteria -Nb.of.genes 30 Taxonomy 20 Bacteria 10 CP Staskawiczbacteria -CP Peribacteria -CP Moranbacteria -CP Kaiserbacteria -**CPR** Bacteria fdh_thiofag mtm spadh catalytic codhC codhD fdhA fdhB fdhC mcrA mcrB madB pmoA pmoB pmoC Four.hydroxybutyryl.CoA.synthetase carbon_monoxide_dehydrogenase_coxL carbon_monoxide_dehydrogenase_coxM carbon_monoxide_dehydrogenase_coxS madA mmoB Four.hydroxybutyryl.CoA.dehydratase ndma_methanol_dehydrogenase acetate_citrate_lyase_aclA acetate_citrate_lyase_aclB codh

Genes