Tracing of geothermal fluid flow

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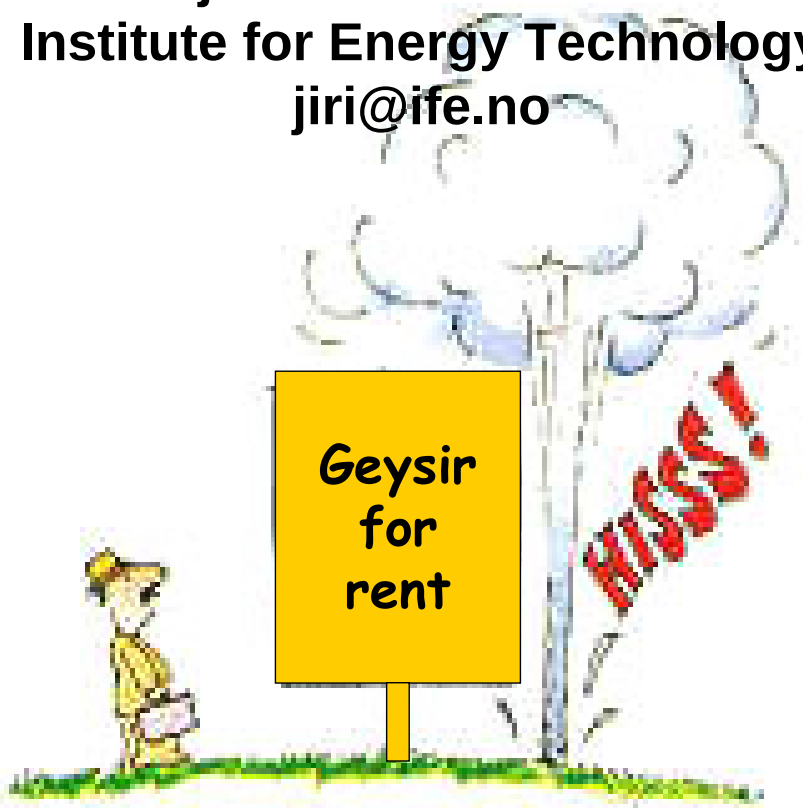


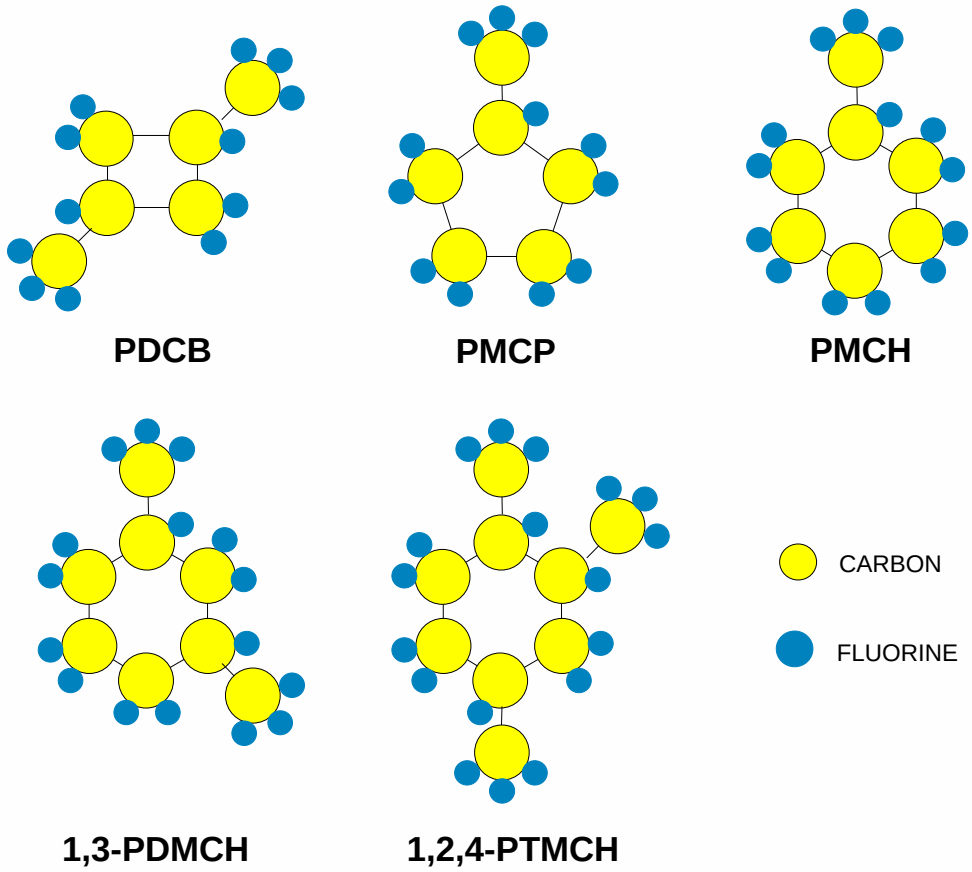
Abbreviations:

SF_6 : Sulphur hexafluoride
PDMCB: Perfluorodimethyl cyclobuthane
PMCP: Perfluoromethyl cyclopentane
PMCH: Perfluoromethyl cyclohexane
PDMCH: Perfluorodimethyl cyclohexane
PTMCH: Perfluorotrimethyl cyclohexane
HTO: Tritiated water
1-NS: 1-Naphtalene sulphonic acid
2-NS: 2-Naphtalene sulphonic acid
1,5-NDS: 1,5-Naphtalene disulphonic acid
2,6-NDS: 2,6-Naphtalene disulphonic acid
2,7-NDS: 2,7-Naphtalene disulphonic acid
1,3,6-NTS: 1,3,6-Naphtalene trisulphonic acid
2-FBA: 2-Fluorobenzoic acid
3-FBA: 3-Fluorobenzoic acid
4-FBA: 4-Fluorobenzoic acid

GC/ECD: Gas chromatography with electron capture detector
GC/MS: GC with mass spectroscopy detector.
GC-MS/MS: GC with tro mass spectrometers (two-dimentional mass spectrometer)
HPLC: High-performance liquid chromatography
LSC: Liquid scintillation counting

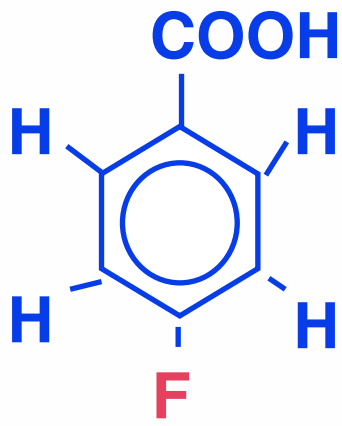
Non-radioactive gas tracers

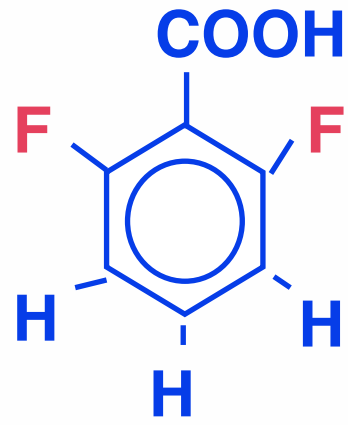
Perfluorinated cyclic hydro-carbons with coordinated light hydro-carbon (methyl) groups

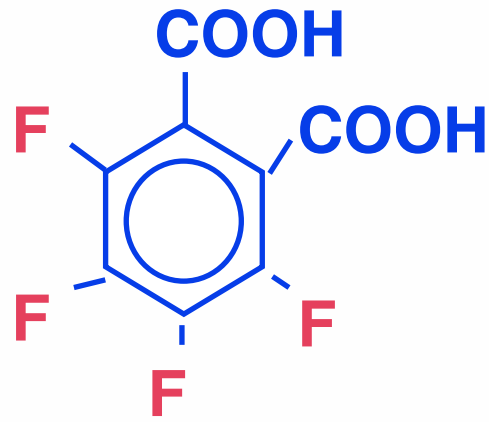


Passive Water Tracers

Non-radiolabel-led passive water tracers are polyfluorin-ated benzoic acids. These can also be made radio-active by tritium or ^{14}C labeling







Other water tracers