

**Andreas
Richter**

**Christiane
Werner**

**Ansgar
Kahmen**

**Johan
Six**

**Nina
Buchmann**

**ISOCYCLES
2017**

**Emmanuel
Frossard**

**Thomas
Wutzler**

**Mathieu
Sébilo**

**Clive
Trueman**

**Carol
Kendall**

Nina Buchmann

O-H isotopes of water in soils:
constraints on water use in plants
Importance of **time**

Ansgar Kahmen

O-H isotopes in leaves compounds:
hydrological vs biosynthetic effects

N deposition: **^{15}N alone** is not enough

Andreas Richter

OM decomposition:

Thresholds in soils

Microbes outcompete **plants**

Microbes are not P limited

Christiane Werner

Competition between plants
for resources.

Isotopes are not enough:
upscaling and integration with
other disciplines

Johan Six

Age of OM is not **turnover**
Isotopes provide information
on resources

Isotopes are not enough:
need to know the physical
properties of soil

Emmanuel Frossard

Stoichiometry is not enough:
Properties of the soil and
isotopes

Mathieu Sébilo

Effect of **time**

Hot spots and **hot moments:**
biology has differential effects
on isotopes

Carol Kendall

Isoscapes in rivers
What is in rivers is not
always coming from land

Clive Trueman

Isoscapes and **research questions:**

understand the base of the food web

In aquatic ecosystems, isoscapes are

not constant: **time** dimension

Thomas Wutzler

All models are wrong,
some models are useful

Make your mental model explicit
What is a surprise...

ISOCYCLES

2017

Four days of talks, posters
Panel discussions
Group discussions
One day off



**Panel
discussions**

**Group
discussions**

Panel discussions

Scale and interpretation
temporal and spatial resolution
sources vs processes
heterogeneity vs homogeneity
isoscape and modelling
interfaces and continuum
physico-chemical and biological processes

Group discussions

Answers to overarching socio-economic questions

Different time and spatial scales

Coupling and decoupling of nutrients/elements

Natural abundance vs labeling studies

Organic vs inorganic processes

Cascading effect

Analytical constraints and different outputs

Prep vs measurements

Need for validation of isotopic data

Know your system vs BLACK BOX

Communication among disciplines

Coordinate efforts

GO BEYOND and **GO OUT OF OUR COMFORT ZONE**