

25. Januar 2018, 16 ct – 18 Uhr
Hörsaal S 01 007, Hermann-Herder-Straße 6

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Pedosphäre und bodennahe Atmosphäre in extrem CO₂-emittierenden Mofetten

The geogenic CO₂ emitted from magma chambers or seismic structures degasses and influences organismic life on the earth`s surface. It irritates (8-10% CO₂) or kills most animals (15-20%), yet some soil-specific animals (collembolan, nematodes) survive. Mofette areas are characterized by bare soil, if CO₂ fluxes are extremely high. Depending on soil buffer capacities, soil pH may be reduced. In addition, SOM and element content of soils may be affected. Surrounding these extreme CO₂-spots, specific vegetation occurs, showing adaption to hypoxic and acidic soils. Soil fungi react to enhanced CO₂ emissions with a reduction in species number. Several distinct plant species are even indicative for mofette fields and hint to the presence of CO₂ gas (mofettophilic plants). Sedges and rushes growing azonally in mofette areas hint to geogenic carbon dioxide emissions. In valley-mofettes a special greenhouse-climate is seen. In several Graeco-Roman areas, the ancient gates to hell are related to the presence of mofettes.