Methods, instruments, responsibilities (technical stuff), actual applications PhD / postdoc and scientific supervision, chemical lab *pgz*
(Status, Oct. 2013)

I) Sampling preparation and pre-treatment

Method	Instrument	Technician	PhD/Postdoc	Scientific supervision
Sample receipt, info on available methods, sample registration	PC	*Anita Kriegel*	-	*N. Lamersdorf*
Sample preparation (drying, sieving, grinding, storage)	Drying chamber, sieves, mills, cold room, freezers etc.	*Anita Kriegel* *Heike Strutz*	-	*N. Lamersdorf*
Filtration, extraction, digestion	Suction strainer, div. digestion devices	*Heike Strutz* *Karin Schmidt*	-	*N. Loftfield* *N. Lamersdorf*
Fumigation & extraction (microbial biomass)	Desiccators, extractor hoods, centrifuges	*Karin Schmidt*	-	*Y. Kuzyakov*
Exchange capacities (Ak_e, Ak_t), carbonate	Percolation devices, *Scheibler*	*Martina Gebauer* *Anita Kriegel*	-	*N. Lamersdorf* *N. Loftfield*
Dithionite-extraction		*Heike Strutz*	-	*N. Loftfield*
Freeze drying	Freeze dryer	*Susann Enzmann* *Heike Strutz*	*J. Pausch*	*N. Loftfield*
Incubation / microcosms: CO_2, $^{13}CO_2$	Climate chambers	*Ingrid Ostermeyer* *Karin Schmidt*	*J. Sommer*	*N. Loftfield*

II) General soil- und plant analysis

Method	**Instrument**	**Technician**	**PhD/Postdoc**	**Scientific supervision**
pH, electric conductivity (EC)	pH/EC-devices	*Martina Gebauer* *Heike Strutz* *Anita Kriegel*	-	*N. Lamersdorf* *N. Loftfield*
TC/IC	C/N-analyser (*elementar*)	*Anita Kriegel* *Karin Schmidt*	-	*N. Loftfield*
DOC (water samples)	*Shimadzu*	*Martina Gebauer* *Ingrid Ostermeyer*	-	*N. Loftfield*
DOC, DON (saline)	*Dohrmann* *Analytik Jena*	*Martina Gebauer* *Anita Kriegel* *Karin Schmidt*	*M. Dippold* *S. Hafner*	*N. Loftfield*
Element analysis in solutions: cations, heavy metals, total S, P	ICP-OES	*Heike Strutz*	*)**	*N. Loftfield*
Element analysis in solutions: NH_4, NO_2, NO_3, N_t, Cl	Continuous-Flow	*Anita Kriegel* *Heike Strutz*	*)**	*N. Loftfield*
Trace gases (CO_2, N_2O, CH_4)	GC	*Martina Gebauer*	*)**	*N. Loftfield*

) only applicable with the help of experienced technicians!*

III) Specific soil- und plant analysis

Method	**Instrument**	**Technician**	**PhD/Postdoc**	**Scientific supervision**
^{14}C (radioactive isotopes)	*LS 6500 Beckmann* *Microbeta*	*Heike Strutz*	*J. Pausch* *M. Dippold*	*Y. Kuzyakov* *LARI*
^{14}C Imaging	*Cyclone* *BAS 1000 Bioimager, Fuji*	*Heike Strutz*	*J. Pausch*	*Y. Kuzyakov* *LARI*
Enzymes (enzyme activities)	*Victor*	*Susann Enzmann* *Heike Strutz*	*S. Hafner*	*J. Blagodatskaya*
PLFA (Phospholipid fatty acids)	Rotary evaporator GC-analysis	*Susann Enzmann*	*M. Dippold* *S. Hafner*	*Y. Kuzyakov*
Microbial growth	ADC CO_2: 24-Channel + PC analysis	-	-	*J. Blagodatskaya*
Root analysis	PC: *WinRhizo*	*Susann Enzmann*	*J. Pausch*	*Y. Kuzyakov*
Plant growth, nutrient solutions etc.	Climate chambers	*Ingrid Ostermeyer*	-	*Y. Kuzyakov*