

GENERAL INFORMATION

author(s)	Rodríguez Unamuno VI
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English title	Nitrogen transformation processes in forest soils: a stable isotope approach
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keywords	N
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project	
supervisor	Hofman G, Boeckx P
institution	Department of Applied analytical and physical chemistry
location	hardcopy
data	

MATERIALS & METHODS

study area	
time period	
goal	Gain insight into N transformation processes in lab conditions through quantification of the gross and net N mineralisation, nitrification and $\text{NH}_4^+/\text{NO}_3^-$ immobilisation and study of the N profiles.
set-up	gross N transformation processes: ^{15}N dilution method (2 forests) net mineralisation rates of different soil layers (2 forests: Aelmoeseneie & Liedekerke)
data collection	organic layer (F+H) 3 mineral layers: 0–10, 10–20, 20–30
remarks	

RESULTS

The highest rates of both gross and net processes were found in the organic layers and in the top (0-10 cm) mineral layer. The uppermost soil layers account for > 70 % of the N cycle processes. The rates of net mineralisation were low in the deeper soil layers (10-30 cm). The $\delta^{15}\text{N}$ profiles showed an increase with depth. So, the slow mineralisation seemed to be correlated with high $\delta^{15}\text{N}$ values.