# A New Model To Calculate Soil Organic Carbon Turnover Using Bomb Carbon. (S05-hahn101011-Poster)

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## Abstract:

A new model has been developed that divides total soil organic carbon (SOC) into an active and a passive pool. Turnover and C-14 signature of the active pool, which dominates total soil carbon turnover, can be calculated using litter fall, carbon amount and C-14 of the top soil as input parameters. The C-14 signature of the active pool can be used to separate root respiration and SOC respiration. Turnover times of the active pool range from 5 to over 16 years (mean: 10 years) for nine European forest sites (CANIF). The annual amount of carbon input as litter is a crucial parameter for exact model calculations.

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