

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Summary of the collected data. Ecosystem type, soil sample location, country, type of added substrate, soil organic carbon content, amount of added carbon and nitrogen-to-carbon ratio of added substrate are provided.

File Name: Supplementary Data 2

Description: Details of the collected data. Time series of CO₂ emissions from soil organic carbon and added substrate are provided.

File Name: Supplementary Data 3

Description: Maximum Likelihood Estimates (MLEs) of calibrated parameters of the conventional model.

File Name: Supplementary Data 4

Description: Maximum Likelihood Estimates (MLEs) of calibrated parameters of the interactive model.

File Name: Supplementary Data 5

Description: Maximum Likelihood Estimates (MLEs) of calibrated parameters of the regular Michaelis-Menten model.

File Name: Supplementary Data 6

Description: Maximum Likelihood Estimates (MLEs) of calibrated parameters of the reverse Michaelis-Menten model.