Metadata 3C

Obligatory fields are indicated with an asterisk

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| **Code**  | 3C |
| **Title \*** | 3C Soil organic carbon mineralization |
| **Acronym** | SOCM |
| **Path** | Data archive\MS3 |
| **Description \***  | It is the dataset of SOC mineralization rate for a 76-day incubation of intact versus crushed aggregates (large and small macroaggregates). SOC mineralization were measured in the days of 1, 2, 6, 9, 13, 20, 28, 48 and 76. Soil samples were collected from 12 sampling plots based on two precipitation levels (wet and dry sites) and two contrasting bedrocks (limestone and acid igneous rocks). The dataset are used to investigate how lithology, precipitation and aggregate destruction affect SOC mineralization.  |
| **Creator \*** | Songyu Yang |
| **Publisher** |  |
| **Contributor** | Erik Cammeraat, Boris Jansen and Lisa Boerdam |
| **Type** | Tabular data |
| **Format \*** | csv and sav |
| **OS** |  |
| **Software** | Excel and SPSS |
| **Identifier** |  |
| **Source** |  |
| **Rights \*** | IBED, University of Amsterdam |
| **Language** | English |
| **SpatialCoverage** | Wet site (Caj): Coordinate: 7° 11’ S, 78° 35’ W, altitudes: 3500 – 3720 m; Dry site (Hua): Coordinate: 9° 22’ S, 77° 59’ W, altitudes: 3490 – 3700 m |
| **ProjectionSystem \*** | *Not available* |
| **TemporalCoverage \*** | Period 1 (Caj): 2015-07-02 to 2015-07-03, period 2 (Hua): 2016-07-02 to 2016-07-12 |
| **Keywords \*** | Soil organic carbon, mineralization, intact aggregates, crushed aggregates, large macroaggregates, small macroaggregates |
| **SizeMB \***  | 190KB for the csv file and 171KB for the sav file |

Column description

If the dataset is tabular, it is obligatory to describe the content of each column.

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| --- | --- | --- | --- |
| **Column name** | **unit** | **Data type +** | **description** |
| Place | no unit | Nominal | Place where the sample were taken (Caj [wet site] vs. Hua [dry site]) |
| Place\_D | no unit | Nominal | Dummy variable of place: 1 = Caj, 0 = Hua |
| Replicate | no unit | Nominal | Replicates |
| Lith | no unit | Nominal | Lithology (Cal (LS): limestone soil, Acid (GS): acid rock soil) |
| Lith\_D | no unit | Nominal | Dummy vairable of lithology: 1 = GS, 0 = LS |
| Horiozn | no unit | Nominal | Soil horizon |
| Horizon\_D | no unit | Nominal | Dummy variable of soil horizon: 1 = Ah, 0 = B |
| IntactVsCrush | no unit | Ordinal | Whether aggregates were crushed: 1 = intact, 2 = crushed |
| Fraction | no unit | Nominal | Aggregate fraction |
| Fraction\_D | no unit | Nominal | Dummy variable of Fraction: 1 = LM (>2mm), 2 = SM (0.25-2mm) |
| FractionCrushNo | no unit | Ordinal | 1 = LM-Intact, 2 = LM-Crushed, 3 = SM-Intact, 4 = SM-crushed |
| LithHorizon | no unit | Nominal | The combination of lithology and horizon |
| LithHorizonNo | no unit | Nominal | 1 = GS-A, 2 = LS-A, 3 = LS-B |
| LithHorizon\_D1 | no unit | Nominal | Dummy variable 1 of LithHorizon: 1 = LS-B |
| LithHorizon\_D2 | no unit | Nominal | Dummy variable 2 of LithHorizon: 1 = LS-A |
| PlaceLithHori | no unit | Nominal | The combination of place, lithology and horizon |
| PlaceLithHoriNo | no unit | Nominal | 1 = Caj-LS-A, 2 = Caj-LS-B, 3 = Caj-AS-A, 4 = Hua-LS-A, 5 = Hua-LS-B, 6 = Hua-AS-A |
| Day | day | Scale | Sampling day |
| C\_culmOri | mg | Scale | Accumulative SOC mineralization |
| C\_2sampOri | mg | Scale | SOC mineralization between 2 sampling dates |
| C\_culm\_gsoilOri | mg g-1 soil | Scale | Accumulative SOC mineralization rate (mg g-1 soil) |
| C\_culm\_gCOri | mg g-1 soil C | Scale | Accumulative SOC mineralization rate (mg g-1 soil C) |
| C\_gsoil\_MacroOri | mg g-1 soil | Scale | Accumulative SOC mineralization rate in macroaggregates (mg g-1 soil) |
| C\_gC\_MacroOri | mg g-1 soil C | Scale | Accumulative SOC mineralization rate in macroaggregates (mg g-1 soil C) |
| C\_2samp\_gsoilOri | mg g-1 soil | Scale | SOC mineralization rate between 2 sampling dates (mg g-1 soil) |
| C\_2samp\_gCOri | mg g-1 soil C | Scale | SOC mineralization rate between 2 sampling dates (mg g-1 soil C) |
| C\_culmCrLn\_gsoilOri | mg g-1 soil | Scale | Difference in accumulative SOC mineralization rate between intact and crushed aggregates (mg g-1 soil) |
| C\_culmCrLn\_gCOri | mg g-1 soil C | Scale | Difference in accumulative SOC mineralization rate between intact and crushed aggregates (mg g-1 soil C) |
| C\_2sampCrLn\_gsoilOri | mg g-1 soil | Scale | Difference in accumulative SOC mineralization rate (between 2 sampling dates) between intact and crushed aggregates (mg g-1 soil) |
| C\_2sampCrLn\_gCOri | mg g-1 soil C | Scale | Difference in accumulative SOC mineralization rate (between 2 sampling dates) between intact and crushed aggregates (mg g-1 soil C) |
| CperDay\_gsoilOri | mg g-1 soil | Scale | SOC mineralization rate per day between 2 sampling dates (mg g-1 soil) |
| CperDay\_gCOri | mg g-1 soil C | Scale | SOC mineralization rate per day between 2 sampling dates (mg g-1 soil C) |
| CculmperDay\_gsoilOri | mg g-1 soil | Scale | SOC mineralization rate per day (mg g-1 soil) |
| CculmperDay\_gCOri | mg g-1 soil C | Scale | SOC mineralization rate per day (mg g-1 soil C) |
| Macro2mm | % | Scale | Macroaggregate stability estimated by the ratio of > 2 mm fraction remaining after wet sieving macroaggregates (> 2 mm) |
| Macro025mm | % | Scale | Macroaggregate stability estimated by the ratio of > 0.25 mm fraction remaining after wet sieving macroaggregates (> 2 mm) |
| MacroMWD | mm | Scale | Macroaggregate stability estimated by the MWD after wet sieving macroaggregates (> 2 mm) |
| MicroMWD | µm | Scale | Micro aggreagate stability estimated by mean weight diameter before sonication applied for the fraction < 0.25 mm |
| MicroMWDsoni | µm | Scale | Micro aggreagate stability estimated by mean weight diameter after sonication applied for the fraction < 0.25 mm |
| MicroMWDchange | µm | Scale | Micro aggreagate stability estimated by mean weight diameter change after sonication applied for the fraction < 0.25 mm |
| FractionC | % | Scale | OC content of the fraction before the incubation |
| FractionN | % | Scale | N content of the fraction before the incubation |
| FractionC\_N | no unit | Scale | C/N ratio of the fraction before the incubation |

+ data type: integer, double precision, timestamp without time zone, geometry, etc...