

| Parameter name | Parameter description | Default value | Calibrated value by SBO |
|------------------|--|---------------|-------------------------|
| r_d | Microbial death rate. | 4.38 | 4.89 |
| CUE_0 | Baseline microbial carbon use efficiency. | 0.63 | 0.965 |
| CUE_{slope} | CUE_0 dependency on temperature. | 0.016 | 0.00853 |
| Km_0 | Baseline half-saturation constant. | 500 000 | 498 467 |
| Km_{slope} | Km_0 dependency on temperature. | 5000 | 9751 |
| E_a | Activation energy of SOC decomposition. | 47 000 | 36 669 |
| par_{clay} | Clay limitation. | 0 | 2.41 |
| par_{lig} | Lignin-dependent correction factor. | 0 | 6.23 |
| $r_{EnzProd}$ | Rate of enzyme production. | 0.0438 | 0.0361 |
| $r_{EnzLoss}$ | Rate of enzyme loss. | 8.76 | 8.08 |
| $a_{lit-to-DOC}$ | Fraction of $Input_{soild}$ that is transferred to soil. | 0.3 | 0.832 |
| $a_{MIC-to-SOC}$ | Fraction of dead microbes transferred to soil. | 0.5 | 0.716 |
| $Kmup_0$ | Baseline half-saturation constants for substrate limitation of DOC uptake. | 100 | 134 |
| $Kmup_{slope}$ | $Kmup_0$ dependency on temperature. | 10 | 4.62 |
| E_{aup} | Activation energy of DOC uptake. | 47 000 | 34 811 |