**Table S12: p-values of post-hoc tests for differences between the mean ACL of *n*-alkanoic acids and vegetation types (top) and ACL and horizons within the same vegetation type and (bottom), p<0.05 indicates a significant relationship at the 95% confidence level (bold values), con= coniferous trees, dec= deciduous trees, grass= grasslands, L: litter, Ah1= topsoil 1 (0-3 cm), Ah2= topsoil 2 (3-10 cm), grey numbers indicate no significant differences in ANOVA.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Vegetation types** | | | |
|  | **L** | **Ah1** | **Ah2** |
| con-dec | **0.03** | **0.01** | 0.31 |
| con-grass | - | **0.0007** | **0.007** |
| dec-grass | - | 0.19 | **0.03** |
| **Horizons** | | | |
|  | **con** | **dec** | **grass** |
| L-Ah1 | 0.82 | 0.93 | - |
| L-Ah2 | 0.44 | 0.93 | - |
| Ah1-Ah2 | 0.80 | 0.93 | 0.27 |