

3-2018

Comparison of a Simplified Cupric Oxide oxidation HPLC Method with the Traditional GC-MS Method for Characterization of Lignin Phenolics in Environmental Samples (vol 13, pg 1, 2015)

Luni Sun
Old Dominion University

Robert G. M. Spencer

Peter J. Hernes

Rachael Y. Dyda

Kenneth Mopper
Old Dominion University, kmopper@odu.edu

Follow this and additional works at: https://digitalcommons.odu.edu/chemistry_fac_pubs

 Part of the [Chemistry Commons](#), [Marine Biology Commons](#), and the [Oceanography Commons](#)

Repository Citation

Sun, Luni; Spencer, Robert G. M.; Hernes, Peter J.; Dyda, Rachael Y.; and Mopper, Kenneth, "Comparison of a Simplified Cupric Oxide oxidation HPLC Method with the Traditional GC-MS Method for Characterization of Lignin Phenolics in Environmental Samples (vol 13, pg 1, 2015)" (2018). *Chemistry & Biochemistry Faculty Publications*. 153.
https://digitalcommons.odu.edu/chemistry_fac_pubs/153

Original Publication Citation

Sun, L., Spencer, R. G. M., Hernes, P. J., Dyda, R. Y., & Mopper, K. (2018). Comparison of a simplified cupric oxide oxidation hplc method with the traditional gc-ms method for characterization of lignin phenolics in environmental samples (vol 13, pg 1, 2015). *Limnology and Oceanography: Methods*, 16(3), 205-207. doi:10.1002/lom3.10241

Corrigendum: Comparison of a simplified cupric oxide oxidation HPLC method with the traditional GC-MS method for characterization of lignin phenolics in environmental samples

Luni Sun, Robert G. M. Spencer, Peter J. Hernes, Rachael Y. Dyda, Kenneth Mopper

doi: 10.1002/lom3.10001

In our article entitled “Comparison of a simplified cupric oxide oxidation HPLC method with the traditional GC-MS method for characterization of lignin phenolics in environmental samples” (*Limnol. Oceanogr.: Methods* 13, 2015, 1–52), doi: 10.1002/lom3.10001, we would like to correct the errors in Fig. 2 and Table 2 as mentioned below.

The label to Fig. 2(a) needs to be transposed as indicated in the corrected Fig. 2 image below.

Corrected Fig. 2

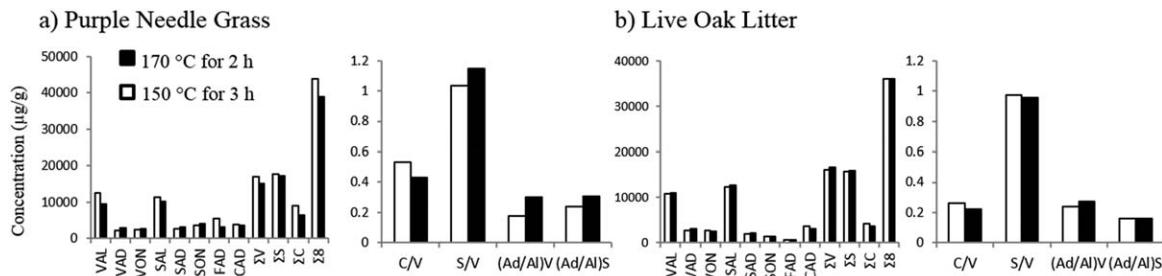
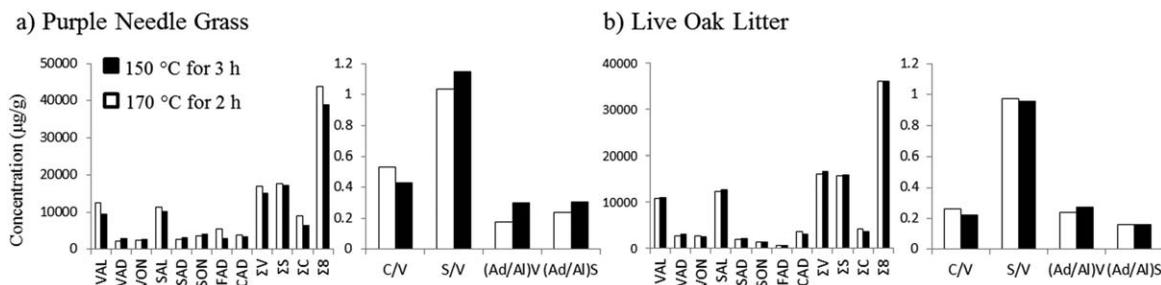


Fig. 2 from the published paper



Entries to $\Sigma 8$ value have been updated as shared below in the corrected version.

Corrected Table 2

Table 2. Concentrations of CuO oxidation products^a ($\mu\text{g/g}$ Sed or $\mu\text{g/L}$) of nine natural samples

OC (%)	VAL	VAD	VON	SAL	SAD	SON	FAD	CAD	$\Sigma 8$	C/V^b	S/V^c	$(Ad/AI)_V^d$	$(Ad/AI)_S^e$
Aiken Loblolly	9.5	9.0	2.7	0.0	0.2	0.0	1.5	1.9	24.9	0.16	0.01	0.94	/
Loblolly Pine Litter	9133 ± 553	2452 ± 4	2183 ± 152	40	0	172 ± 34	1223 ± 34	1618 ± 184	16821 ± 960	0.21	0.02	0.27	0.00
Purple Needlegrass	12491 ± 610	2170 ± 16	2404 ± 53	11336 ± 728	2726 ± 305	3566 ± 254	5391 ± 226	3725 ± 38	43809 ± 2232	0.51	0.98	0.16	0.24
lone Needlegrass	7.5	6.5	3.1	5.0	3.0	1.4	3.0	2.1	31.4	0.30	0.55	0.87	0.61
Live Oak litter	10850 ± 566	2581 ± 365	2669 ± 20	12315 ± 1293	1979 ± 144	1346 ± 37	592 ± 7	3663 ± 327	35995 ± 2880	0.26	0.97	0.24	0.16
McCarthy Live Oak	7.4	9.1	0.7	12.5	4.3	1.4	2.4	2.4	31.4	0.28	1.06	1.24	0.34
DB sediment	382 ± 27.1	127 ± 5.5	87 ± 20.2	120 ± 6.7	22 ± 1.2	20	13 ± 0.9	31 ± 1.5	801.6 ± 57.8	0.07	0.27	0.33	0.19
IHSS	165 ± 7.1	261 ± 4.6	57 ± 5.1	194	178 ± 27.6	37 ± 1.8	24 ± 3.6	72	988.0 ± 49.9	0.20	0.85	1.59	0.92
Congo River ^f	10.1	12.4	6.2	10.3	6.9	5.1	4.2	2.3	57.5	0.22	0.77	1.22	0.67

^a Errors are standard deviations for the duplicates.

^b $C = \text{FAD} + \text{CAD}$, $V = \text{VAL} + \text{VAD} + \text{VON}$.

^c $S = \text{SAL} + \text{SAD} + \text{SON}$.

^d Ratio of VAD/VAL .

^e Ratio of SAD/SAL .

^f 890.92 μM DOC for Congo river sample.

Table 2 from the published paper**Table 2.** Concentrations of CuO oxidation products^a ($\mu\text{g/g}$ Sed or $\mu\text{g/L}$) of nine natural samples

OC (%)	VAL	VAD	VON	SAL	SAD	SON	FAD	CAD	$\Sigma 8$	C/V^b	S/V^c	$(Ad/Al)_V^d$	$(Ad/Al)_S^e$
Aiken Loblolly	9.5	9.0	2.7	0.0	0.2	0.0	1.5	1.9	21.2	0.16	0.01	0.94	/
Loblolly Pine	9133 \pm 553	2452 \pm 4	2183 \pm 152	40	0	172 \pm 34	1223 \pm 34	1618 \pm 184	13768 \pm 960	0.21	0.02	0.27	0.00
Litter													
Purple	12491 \pm 610	2170 \pm 16	2404 \pm 53	11336 \pm 728	2726 \pm 305	3566 \pm 254	5391 \pm 226	3725 \pm 38	17936 \pm 689	0.51	0.98	0.16	0.24
Needlegrass													
lone	7.5	6.5	3.1	5.0	3.0	1.4	3.0	2.1	17.0	0.30	0.55	0.87	0.61
Needlegrass													
Live Oak litter	10850 \pm 566	2581 \pm 365	2669 \pm 20	12315 \pm 1293	1979 \pm 144	1346 \pm 37	592 \pm 7	3663 \pm 327	16100 \pm 2880	0.26	0.97	0.24	0.16
McCarthy Live	7.4	9.1	0.7	12.5	4.3	1.4	2.4	2.4	17.2	0.28	1.06	1.24	0.34
Oak													
DB sediment	382 \pm 27.1	127 \pm 5.5	87 \pm 20.2	120 \pm 6.7	22 \pm 1.2	20	13 \pm 0.9	31 \pm 1.5	596 \pm 57.8	0.07	0.27	0.33	0.19
IHSS	165 \pm 7.1	261 \pm 4.6	57 \pm 5.1	194	178 \pm 27.6	37 \pm 1.8	24 \pm 3.6	72	483 \pm 49.9	0.20	0.85	1.59	0.92
Congo River ^f	10.1	12.4	6.2	10.3	6.9	5.1	4.2	2.3	57.5	0.22	0.77	1.22	0.67

^a Errors are standard deviations for the duplicates.^b $C = \text{FAD} + \text{CAD}$, $V = \text{VAL} + \text{VAD} + \text{VON}$.^c $S = \text{SAL} + \text{SAD} + \text{SON}$.^d Ratio of VAD/VAL .^e Ratio of SAD/SAL .^f 890.92 μM DOC for Congo river sample.

The authors apologize for any inconvenience this may have caused.