



***Interactive comment on “Total peroxy nitrates ( $\Sigma$ PNs) in the atmosphere: the thermal dissociation-laser induced fluorescence (TD-LIF) technique and comparisons to speciated PAN measurements” by P. J. Wooldridge et al.***

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Received and published: 2 March 2010

Responses to both Referees are included in the supplement. The revised Table 2 is included below.

Please also note the supplement to this comment:

<http://www.atmos-meas-tech-discuss.net/2/C1290/2010/amtd-2-C1290-2010-supplement.pdf>

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Interactive comment on Atmos. Meas. Tech. Discuss., 2, 3055, 2009.

**AMTD**

2, C1290–C1292, 2010

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CommentTable 2.  $\Sigma$ PNs versus speciated PANs comparisons table

opportunity	weighting %, ppbv	species in sum	slope vs. $\Sigma$ PNs	intercept ppbv	$R^2$	$\text{NO}_2$ ppbv min., median, max.	notes
TOPSE		PAN+PPN	1.04±.06	.002±.020	.77	.00, .013, .08	vs. GC/ECD
INTEX-NA		PAN+PPN+PBN+PBzN+ MPAN+MoPAN+APAN	1.06±.09	-.030±.025	.88	.02, .06, .59	vs. WP-3D TD-CIMS, comparison flight
INTEX-NA		PAN	1.03±.01	.005±.003	.80	.00, .05, 6.9	vs. DC-8 GC/ECD, entire mission
INTEX-B		PAN	1.33±.02	.037±.012	.60	.00, .03, .53	vs. DC-8 GC/ECD, entire mission
INTEX-B	20, .005	PAN+PPN	0.66±.02	.13±.02	.87	.05, .12, .63	vs. C-130 TD-CIMS, 3/19
INTEX-B	20, .005	PAN+PPN	0.93±.06	.042±.007	.77	.00, .02, .13	vs. C-130 TD-CIMS, 5/15
ARCTAS		PAN+PPN+PiBN+APAN+PNA	0.97±.093	.004±.270	.96	.00, .02, 59	vs TD-CIMS PANs & PNA ( $\text{HO}_2\text{NO}_2$ ) without PNA
ARCTAS		PAN+PPN+PiBN+APAN	0.92±.090	.010±.240	.94	.00, .02, 59	without PNA, APAN
ARCTAS		PAN+PPN	0.90±.089	.022±.230	.94	.00, .02, 59	without PNA, PiBN, APAN
TexAQS		PAN+PPN+PiBN+MPAN	0.91±.17	.024±.88	.91	.80, 7.7, 88	vs. GC/ECD
Chebogue Pt.		PAN+PPN	0.90±.02	.005±.004	.72	.00, .50, 2.4	vs. GC/ECD
PIE 6/ 30-7/1		PAN+PPN	0.66±.08	-.04±.07	.84	.00, 2.3, 44	ambient sampling
BEARPEX	21, .003	PAN+PPN+MPAN	1.08±.02	-.04±.01	.75	.00, .73, 28	vs U. Wash. TD-CIMS, 2007
$\text{N}_2\text{O}_5$ , Jülich		$\text{N}_2\text{O}_5$	1.02±.06	-.36±.05	.87	1.5, 3.2, 7.5	SAPHIR chamber runs

$\Sigma$ PNs were weighted by  $1/(15\%$  of measurement + .05 ppbv) and  $\Sigma$ PANs were weighted by  $1/(15\%$  of measurement + .005 ppbv) except when stated numbers were available, as given above.

Fig. 1. revised Table 2

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