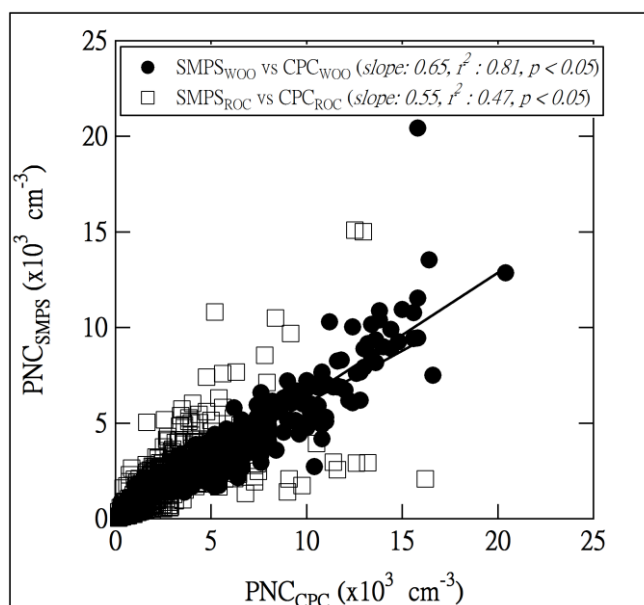


## 1 Supplementary materials

Date	Daily maximum of relative PN contribution (%)	Daily minimum of relative PN contribution (%)	Enrichment factor
8 Feb 2009	12.1	0.3	40.3
15 Mar 2009	8.8	0.5	17.6
14 Apr 2009	8.5	0.4	21.3
3 Sep 2009	12.1	0.6	20.2
16 Sep 2009	7.5	0.7	10.7
17 Sep 2009	6.9	1.0	6.9
25 Oct 2009	13.9	1.2	11.6
28 Oct 2009	24.4	1.4	17.4
29 Oct 2009	9.0	1.8	5.0
2 Nov 2009	9.3	0.8	11.6
16 Nov 2009	11.7	1.6	7.3
Average			15.4

2 **Table S1.** Enrichment factor of the relative PN contribution for the semi-urban area, Rocklea  
 3 under the influence of upwind pollution during the nucleation burst events. Only data  
 4 between the period of 08:00-16:00 have been used in the calculation.

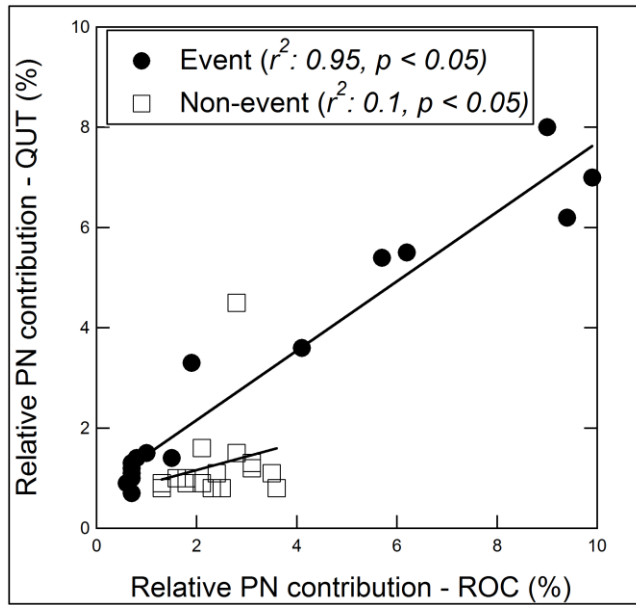
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7 **Figure S1.** Scatter plots of PNCs measured by SMPS ( $PNC_{SMPs}$ ) and CPC ( $PNC_{CPC}$ ) at ROC  
 8 and WOO.

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**Figure S2.** Scatter plots of relative PN contribution between QUT and ROC during nucleation event (9 Sep 2009) and non-event (8 Mar 2009).