

Interactive comment on “Comparison of Polycyclic Aromatic Compounds in Air Measured by Conventional Passive and Passive Dry Deposition Samplers and Contributions from Petcoke and Oil Sands Ore” by Narumol Jariyasopit et al.

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Spatial distribution of PACs was measured and illustrated at the 5 sampling sites across the Athabasca oil sands region in Canada. In this field campaign, authors used two passive sampling instruments, PAS and PAS-DD, to measure gas and particle phase PAHs and oxidated PAH derivatives. Although PACs in the Canadian oil sand have been extensively investigated, this paper provides a new insight into the understanding of sources of PACs from surface mining to the residential area, and validates passive sampling techniques in field air monitoring of gas and particle phase toxic chemicals.

Authors discussed potential sources of PACs. While their measured data were perhaps not sufficient enough to conduct a source apportionment analysis based on a robust statistical method such as the principal component analysis (PCA) analysis, authors might apply the PAH species ratio and NPAHs/pPAHs ratio to qualitatively discuss the origins of these PACs.

Figure 5 was referred to in the paper before Figure 4, please check it.

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