

# Organic molecular tracers in the atmospheric aerosols from Lumbini, Nepal, in the northern Indo-Gangetic Plain: Influence of biomass burning

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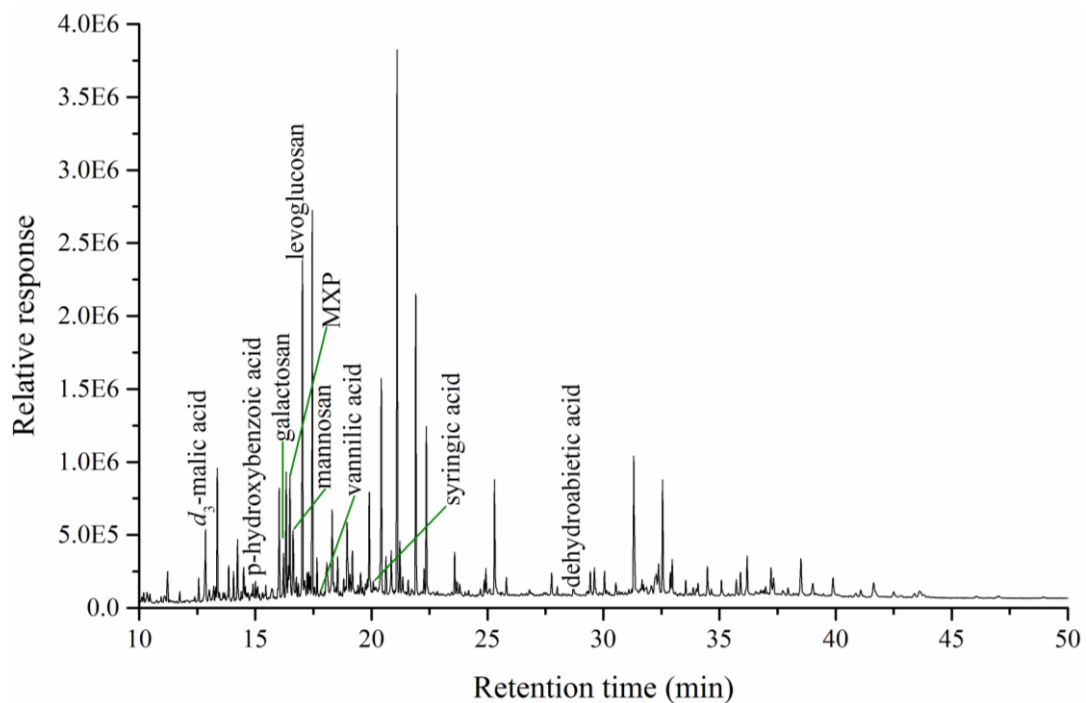
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## Supporting Information

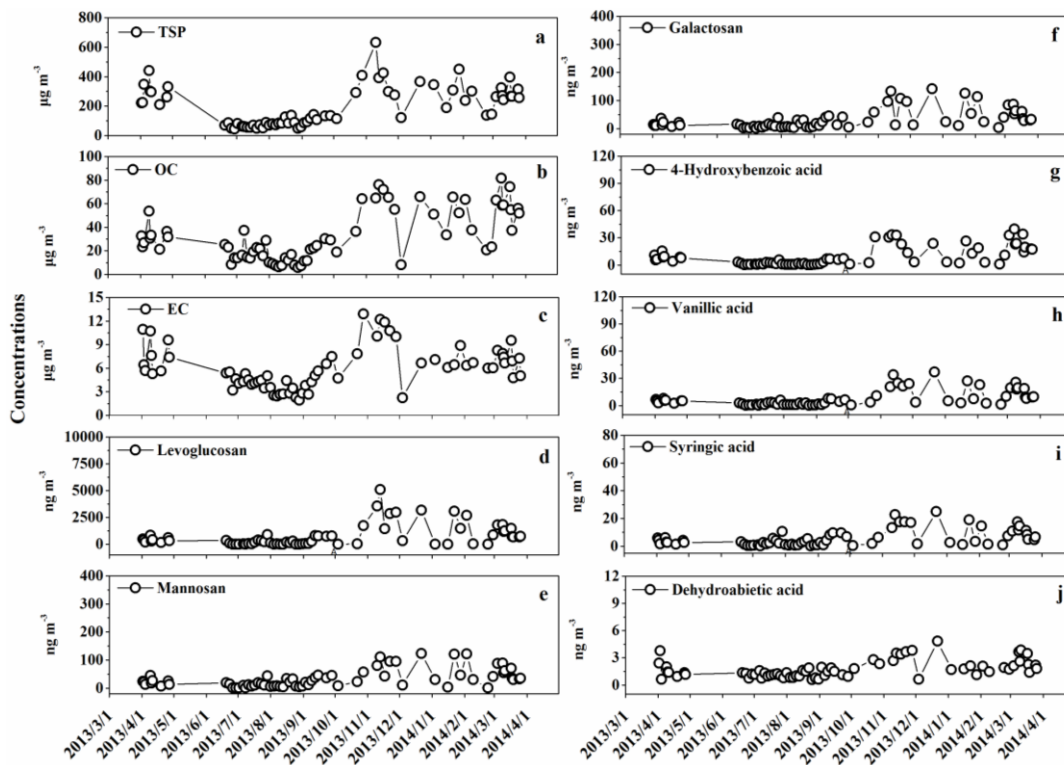
**Table S1** Recovery ratios of target compounds and internal standards.

Compounds	Addition (ppb) (n=6)	Recovery (%)
Levogluconan	20	81.6 ± 10.4
Mannosan	20	80.7 ± 11.7
Galactosan	20	76.3 ± 9.43
p-Hydroxybenzoic acid	20	80.8 ± 9.78
Vanillic acid	20	79.4 ± 11.5
Syringic acid	20	78.6 ± 14.2
Dehydroabietic acid	20	85.4 ± 13.4
Methyl-β-D-xylanopyranoside	20	90.1 ± 13.2
<i>D</i> <sub>3</sub> -malic acid	20	70.5 ± 14.6



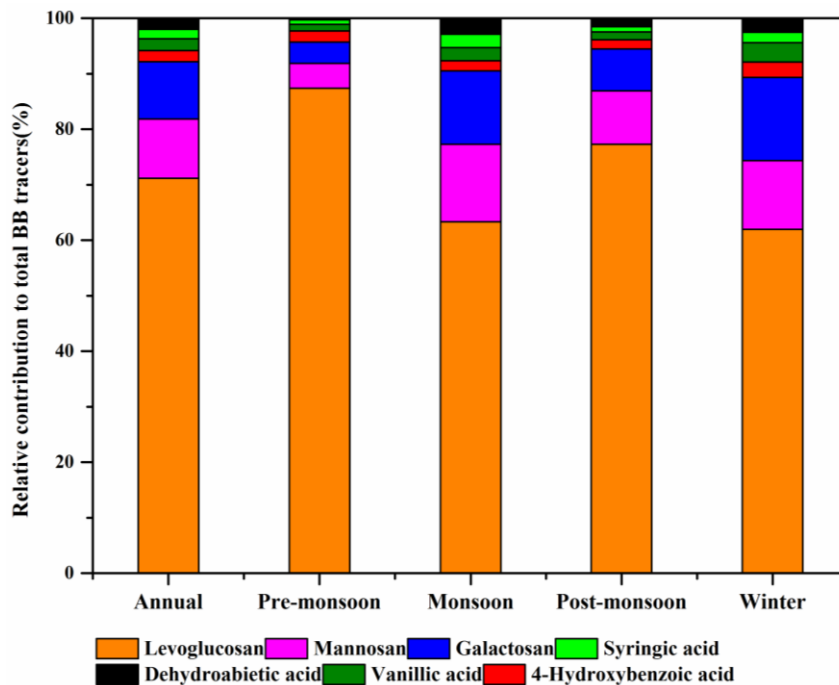
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**Fig. S1.** Total ion chromatogram of organic tracers in a typical aerosol sample from Lumbini in southern Nepal.

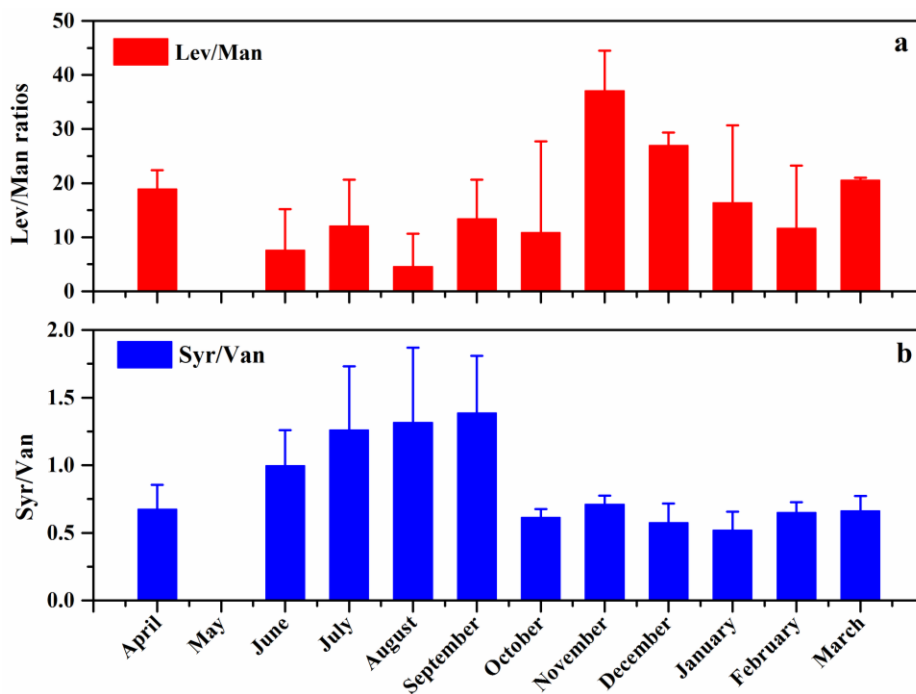


**Fig. S2.** Temporal variations in the concentrations of TSP, OC, EC, and organic tracers in Lumbini

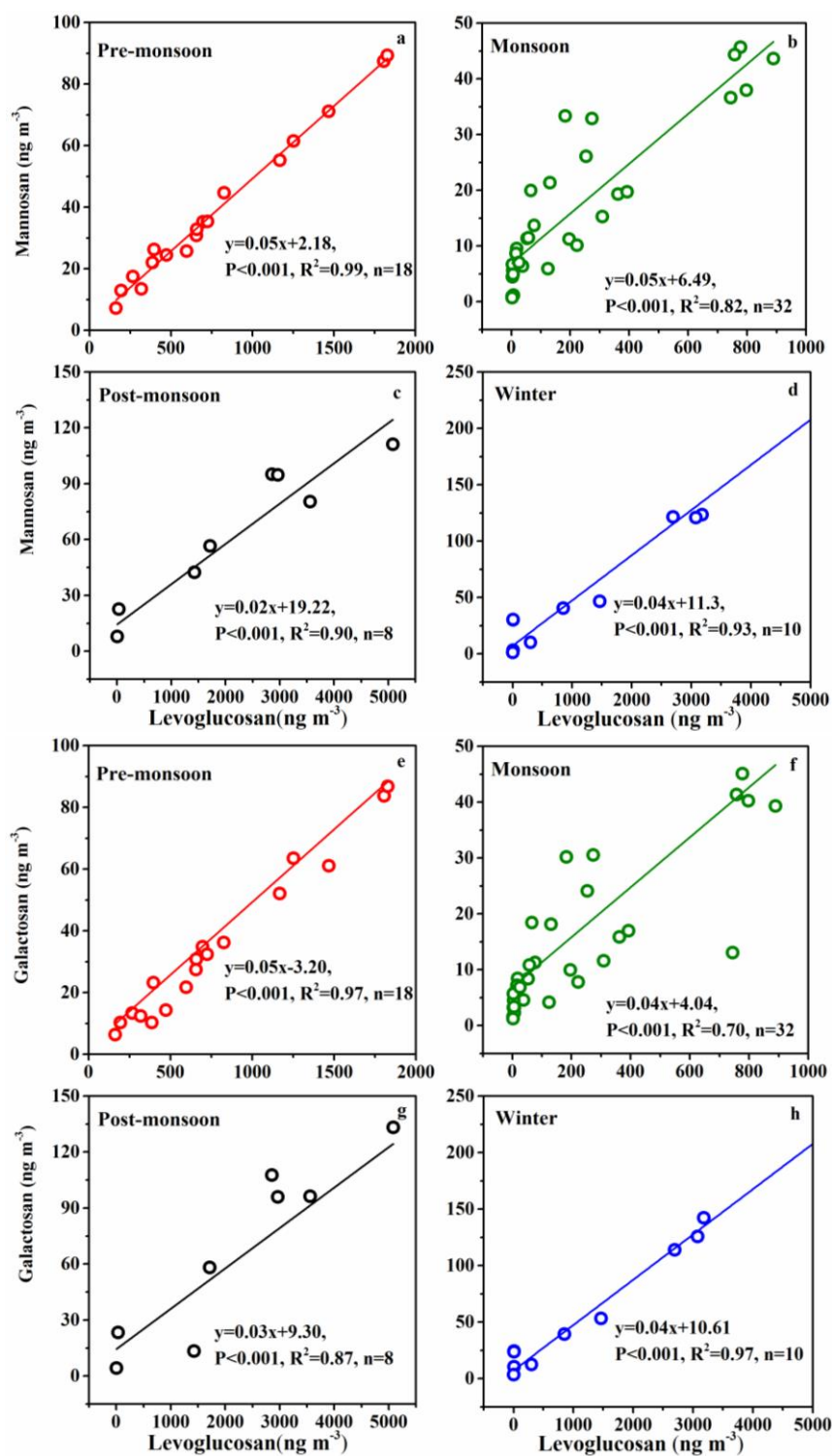
30 aerosols.



**Fig. S3.** Seasonal contributions of individual biomass burning tracers to total measured biomass burning tracers in TSP at Lumbini.

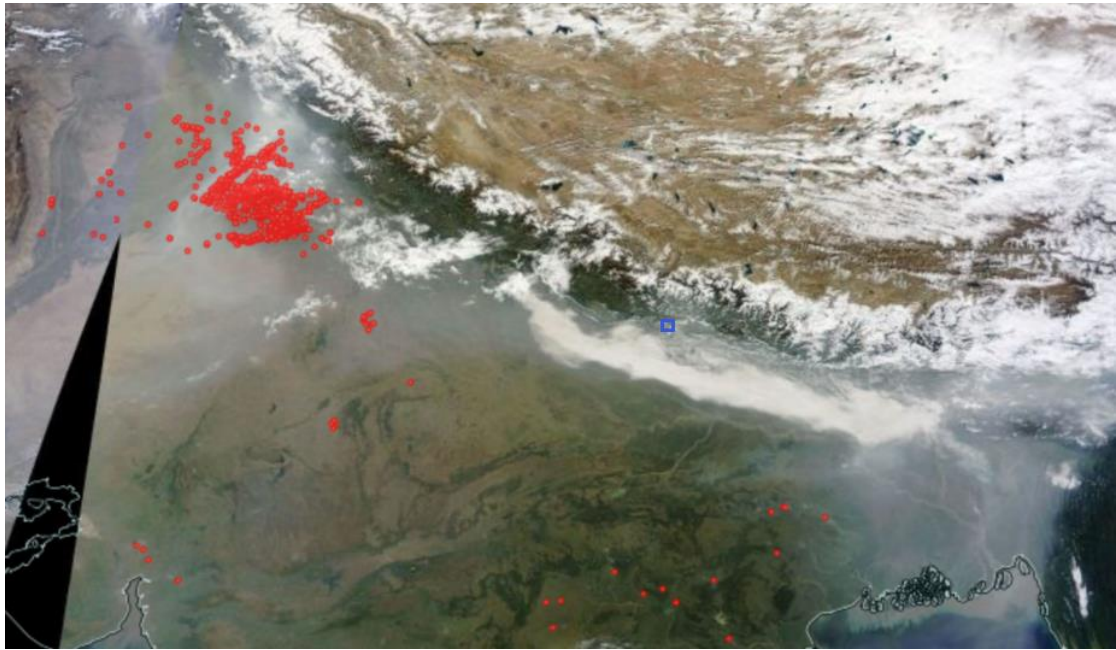


35 **Fig. S4.** Monthly variations of levoglucosan/mannosan (Lev/Man) and syringic acid/vanillic acid (Syr/Van) mass concentration ratios (The data of May, 2013 was missing due to the equipment breakdown) .



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**Fig. S5.** Correlations between levoglucosan and mannosan, and levoglucosan and galactosan during different seasons.



**Fig. S6.** MODIS image from 1 November 2013 showing the smoke plume over the  
45 IGP and active fire spots (<https://worldview.earthdata.nasa.gov/>) (The blue square  
represents the location of Lumbini).