

Supplementary Information of

Source apportionment of oxidative potential depends on the choice of the assay: insights into 5 protocols comparison and implications for mitigation measures

Dominutti et al.

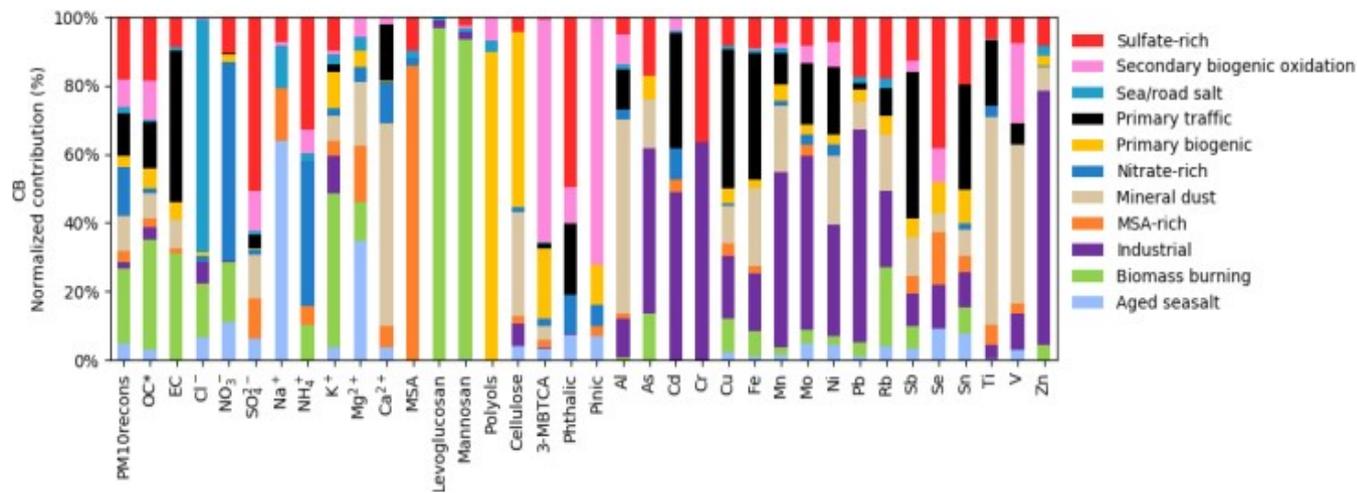


Figure S1. Species repartition among source profiles obtained at the Grenoble hyper-centre site (Borlaza et al., 2021a)

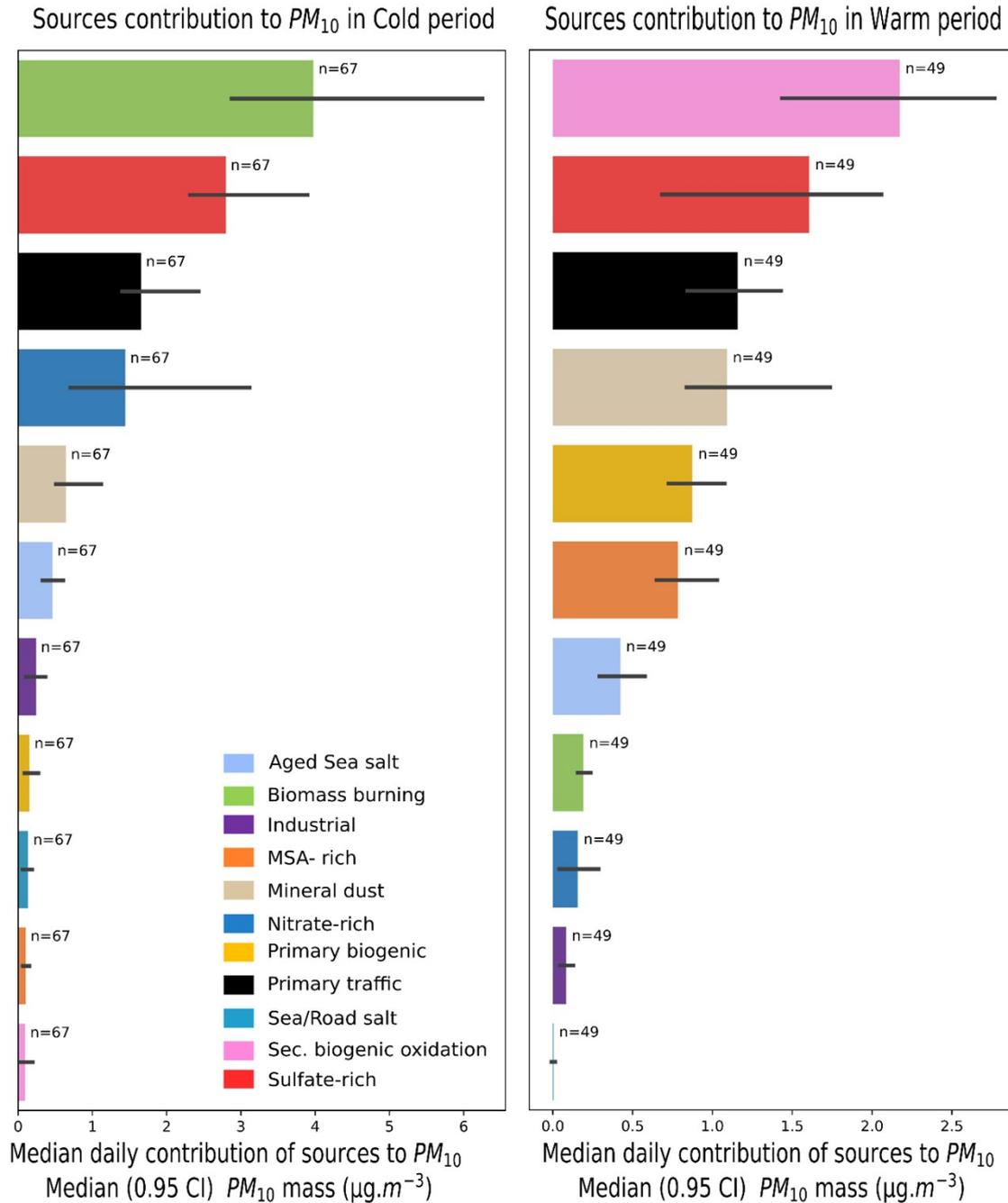


Figure S2. Median daily contribution of PM_{10} sources separated on a seasonal basis. Left: median contribution considering cold months (November, December, January, February, and March). Right: median contribution considering warm months (May, June, July, August, and September).

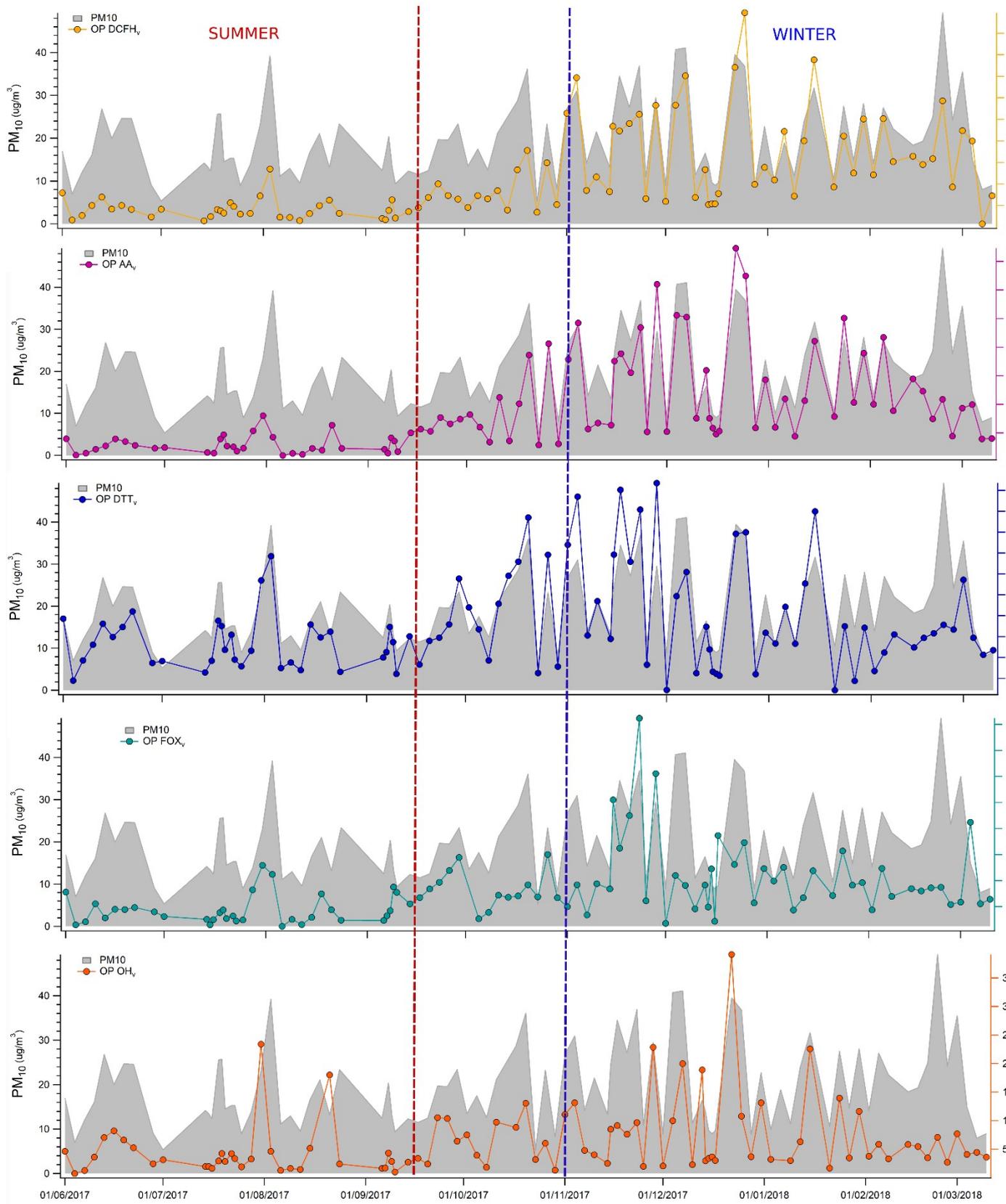
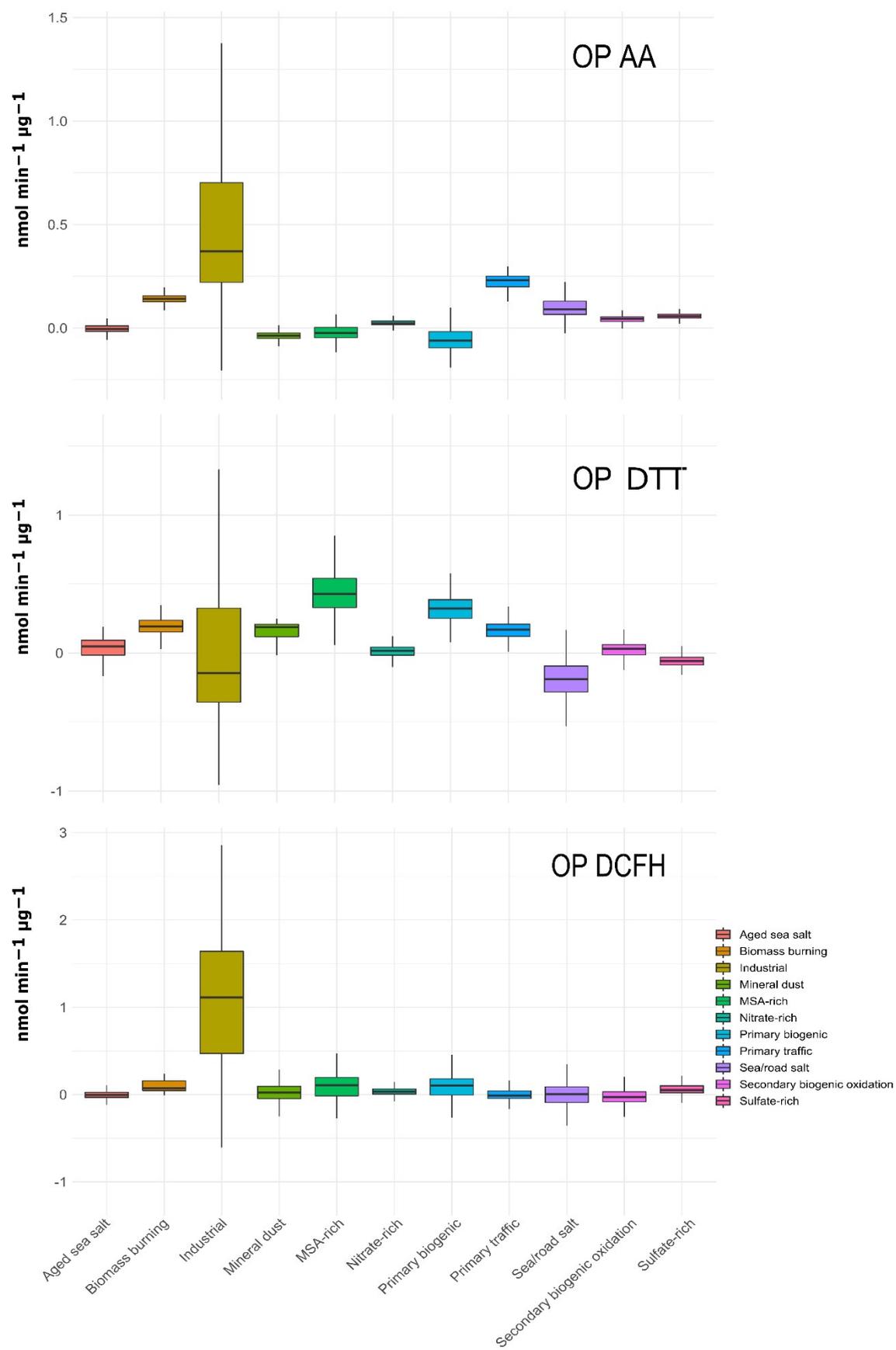


Figure S3. Timeseries of five OP_v assays and PM_{10} concentrations observed in Grenoble, France



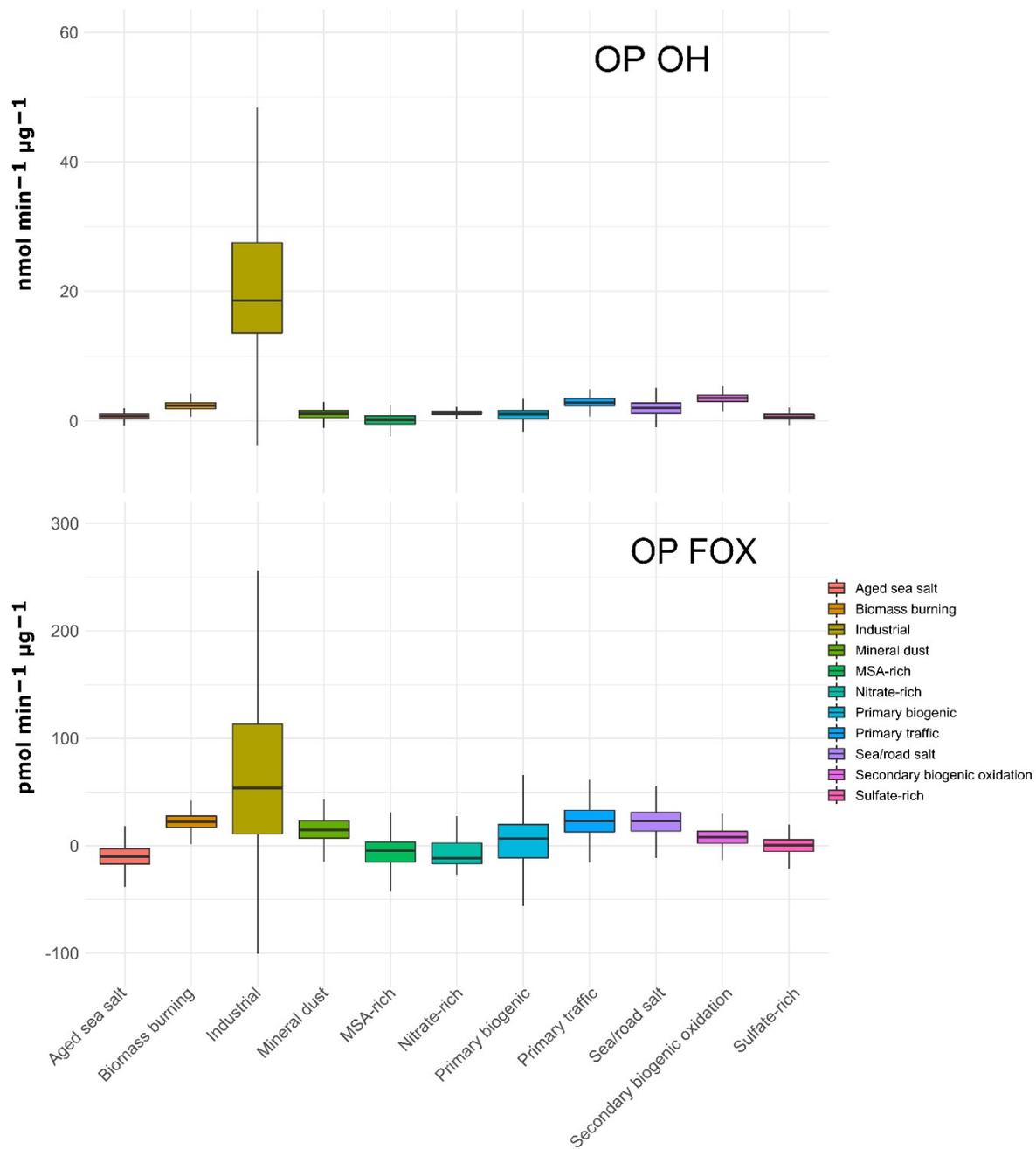


Figure S4. Box plot of intrinsic OP for each OP assay and each PM10 source obtained from the 500 bootstraps. Each box represents the interquartile values; the bottom and the top show the first and third quartile, respectively, and the black horizontal lines are the median of the distribution.

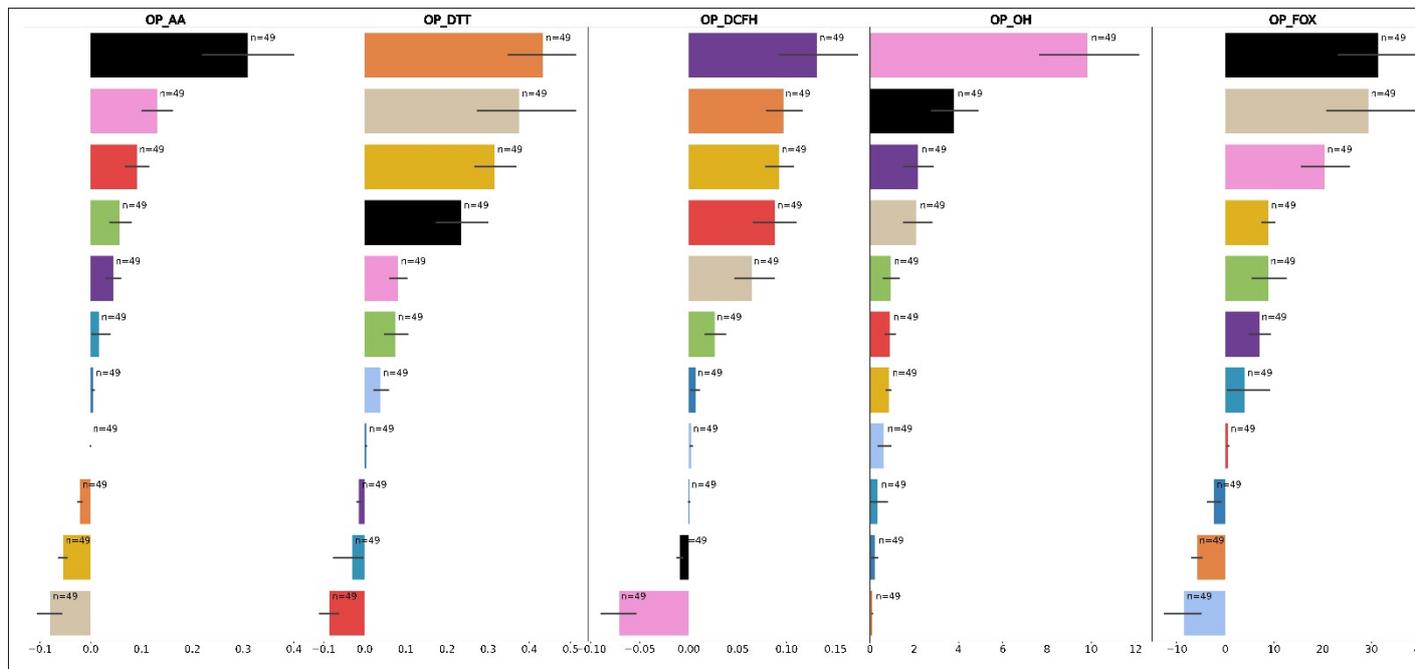
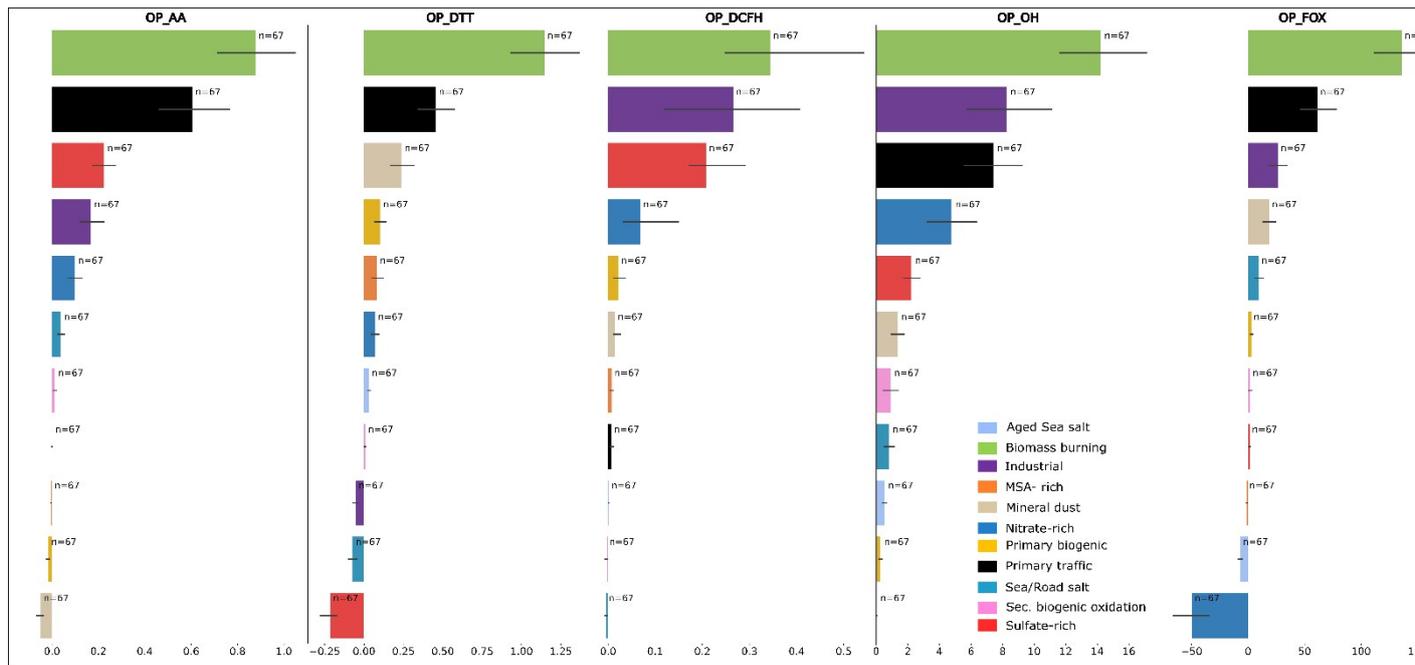


Figure S5. Median daily contribution of PM₁₀ sources based on five OPv assays in Grenoble, France. Top: Source-specific OP exposure during cold months, Bottom: Source-specific OP exposure during warm months.

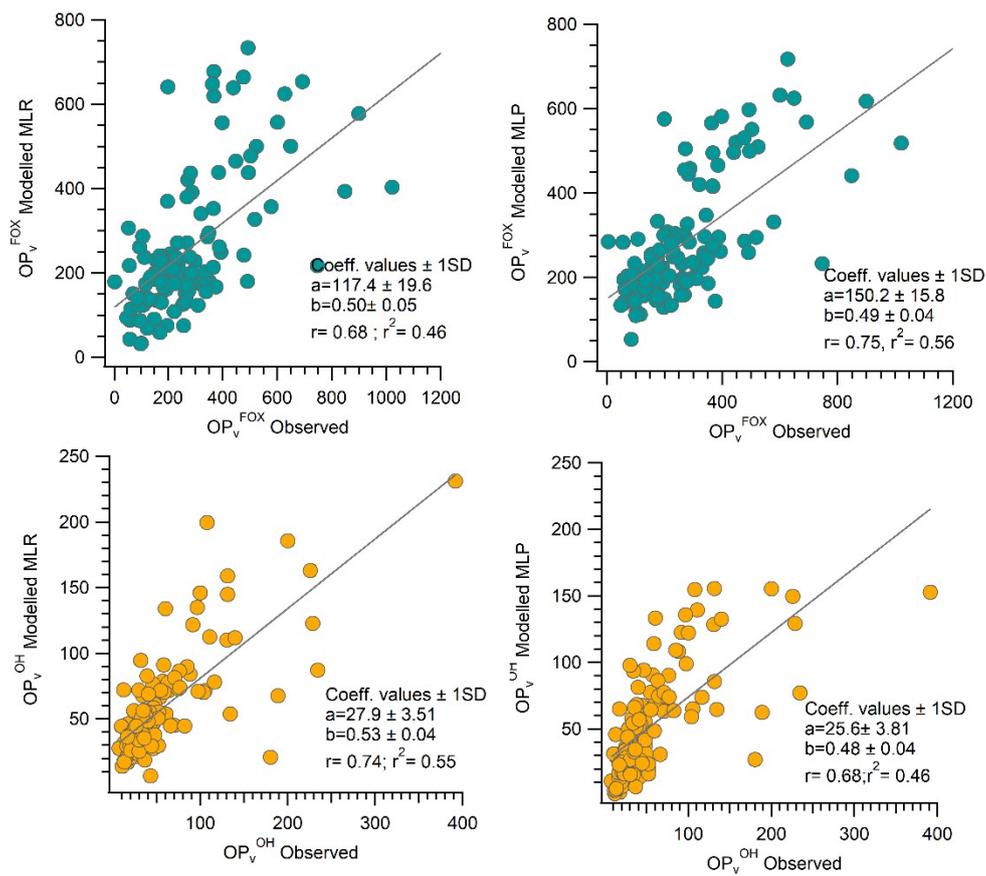


Figure S6. Scatter plots of OP_v^{FOX} and OP_v^{OH} test values observed relative to those obtained by the MLR-WLS model and the MLP model.

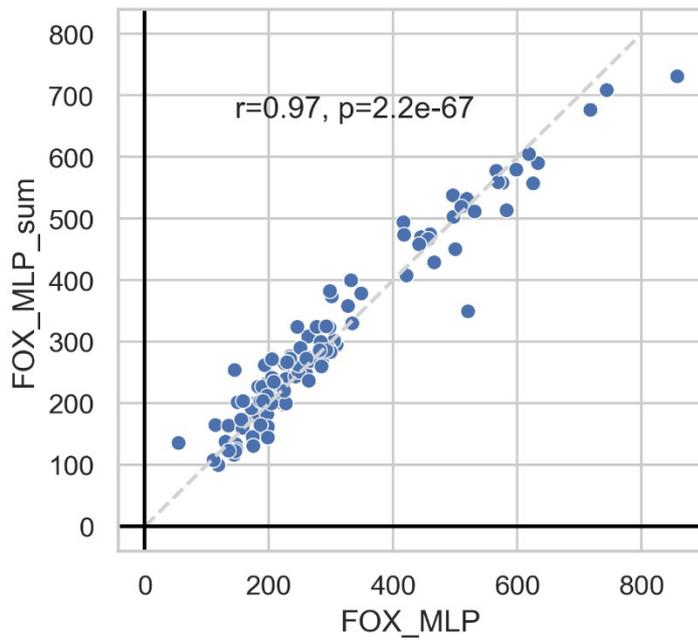
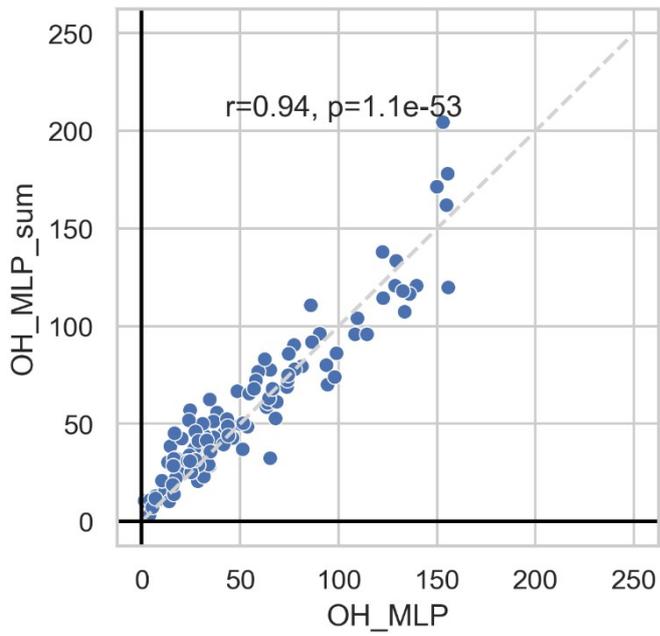


Figure S7. Comparison of the original modelled OP (MLP) and the sum of source-specific modelled OP activity (MLP_sum). The dashed grey line corresponds to the 1:1 line. Data points below the 1:1 line show an overall synergistic effect between PM_{10} sources on OP activity; above the 1:1 line, the antagonist effects.

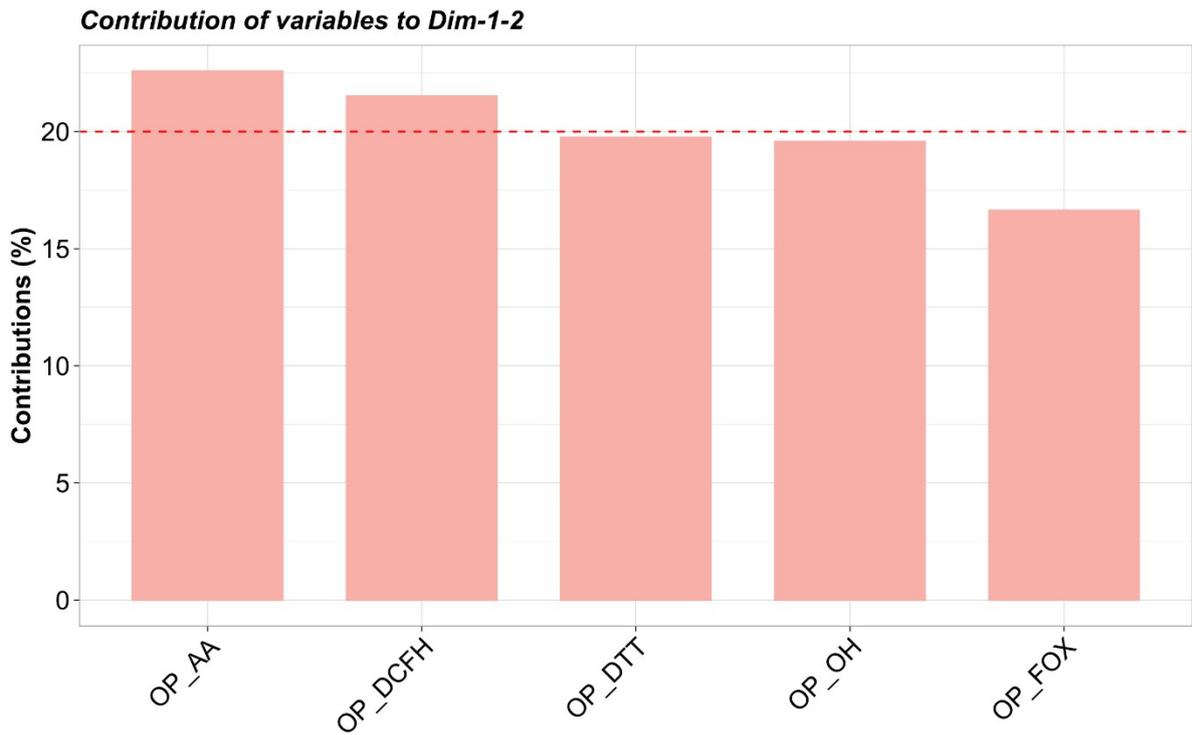
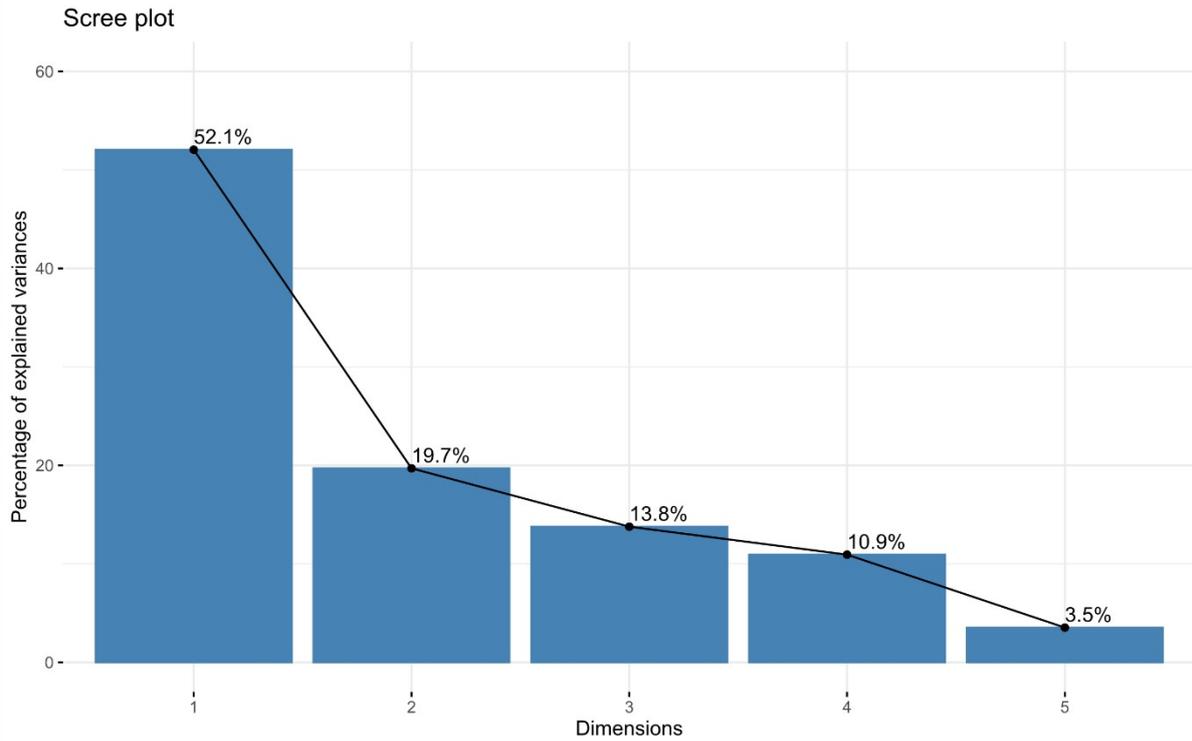


Figure S8. Top: Scree plot of the explained variances by each principal component (dimensions 1 to 5). Bottom: contribution of each OP assay to the PC1 and PC2, representing 72 % of the total variability.

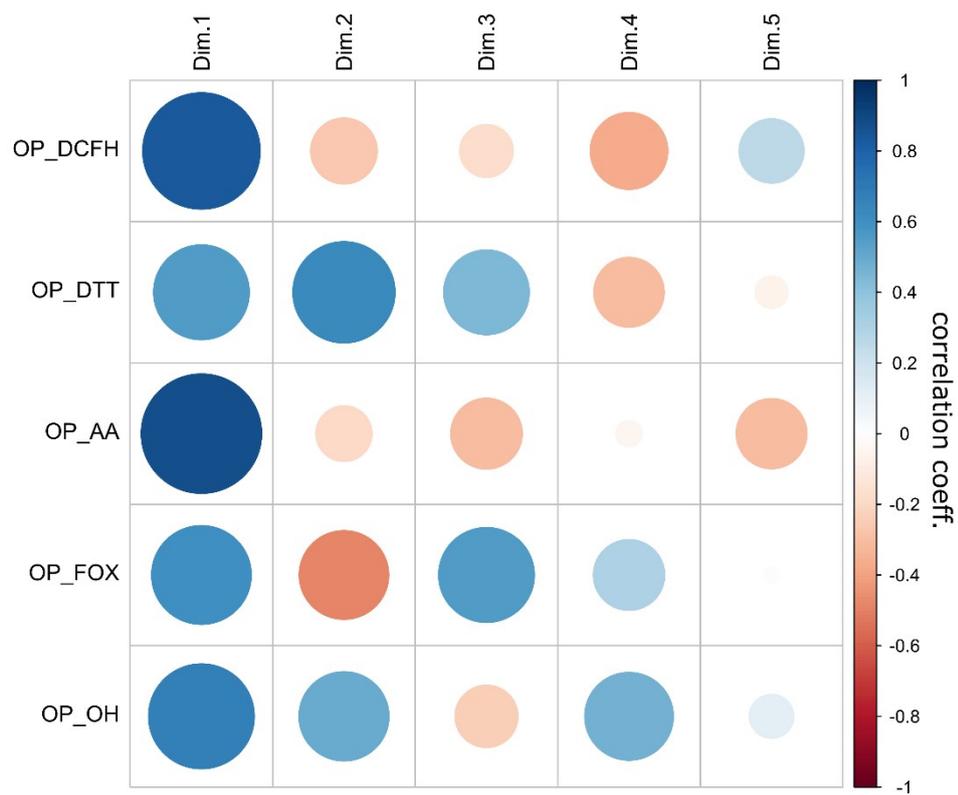


Figure S9. Correlation matrix between the OP assays and the different dimensions (PC) obtained in the PCA analysis.