

Chemical composition of isoprene SOA under acidic and non-acidic conditions: Effect of relative humidity

Supplementary Information

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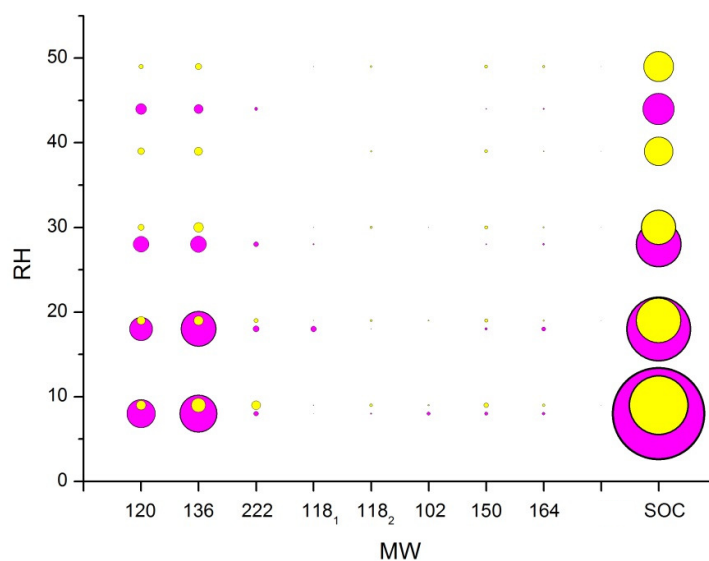


Figure S1. Relative amounts of aerosol components detected with GC-MS acidic seed (pink) and non-acidic seed (yellow) experiments (the areas of the circles are proportional to the estimated mass concentrations of compounds).

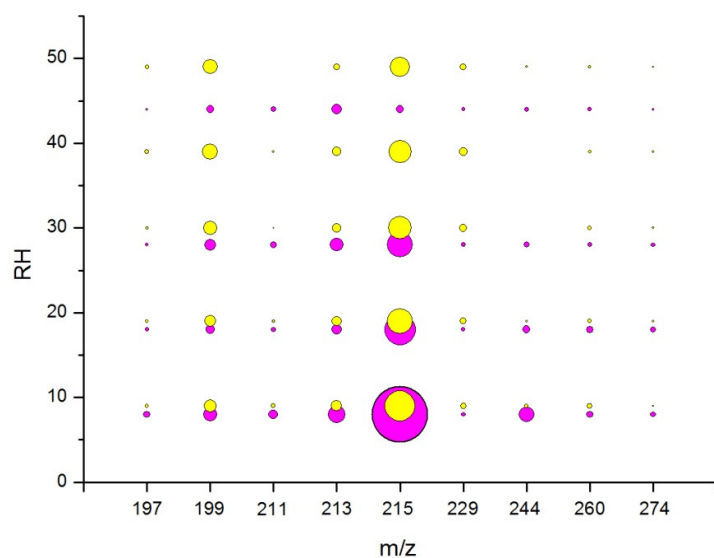
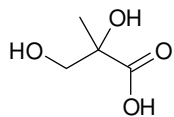
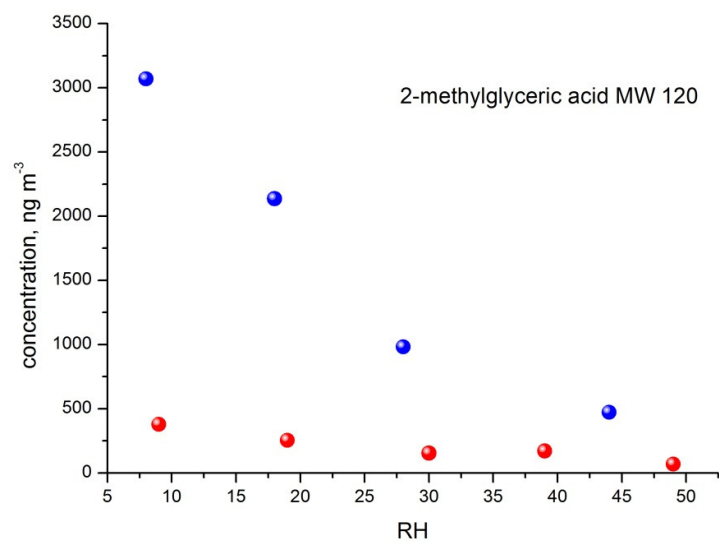
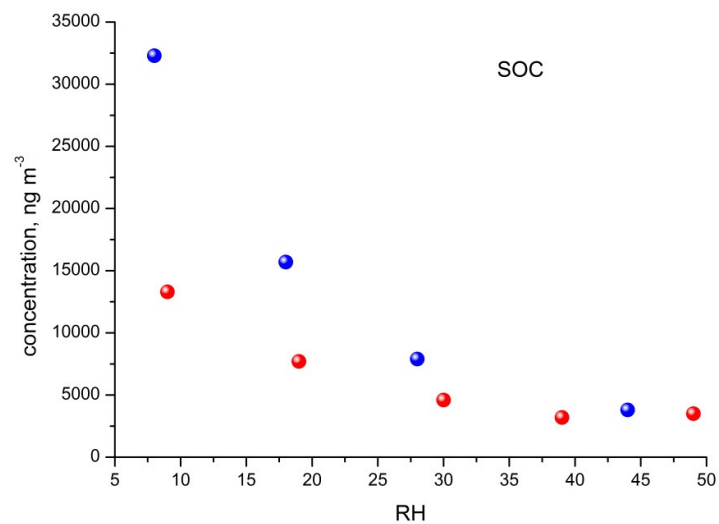


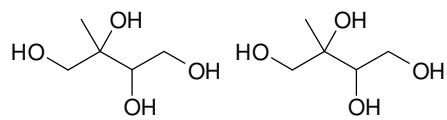
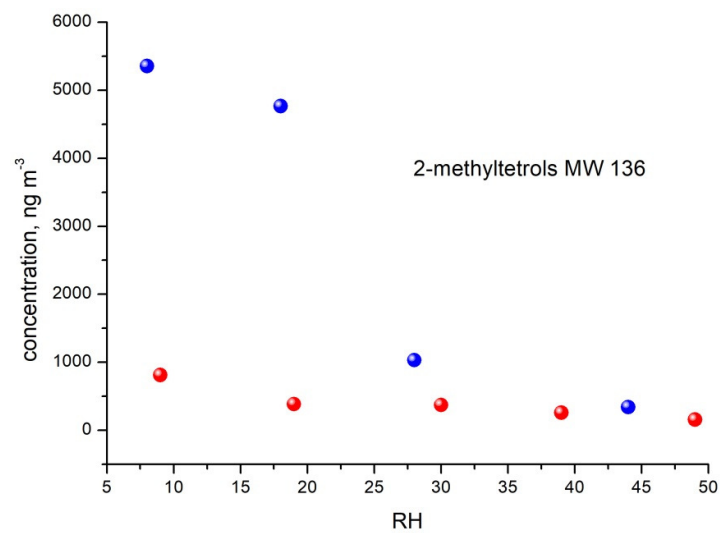
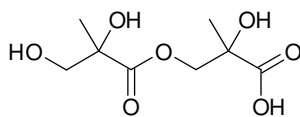
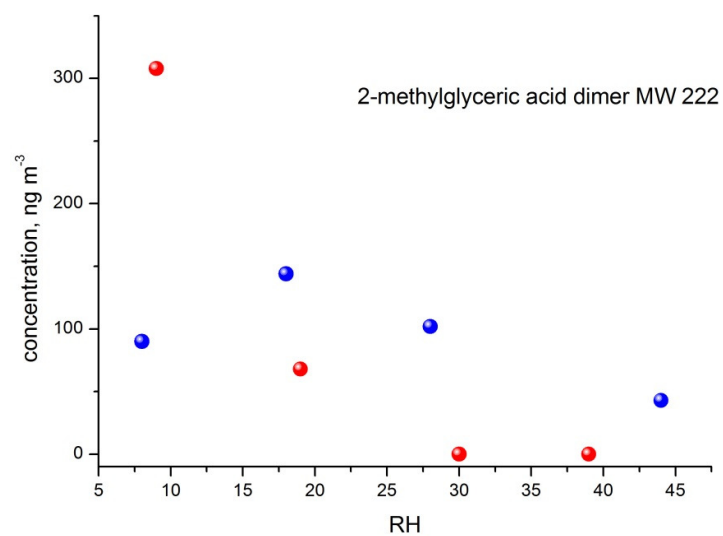
Figure S2. Relative abundances of aerosol components detected with LC-MS in acidic seed (pink) and non-acidic seed (yellow) experiments (the areas of the circles are proportional to relative abundances of compounds detected).

Table S1. Comparison of product yields in acidic seed experiments vs. non-acidic seed experiments at various RH levels (> higher, = equal and lower <)

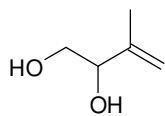
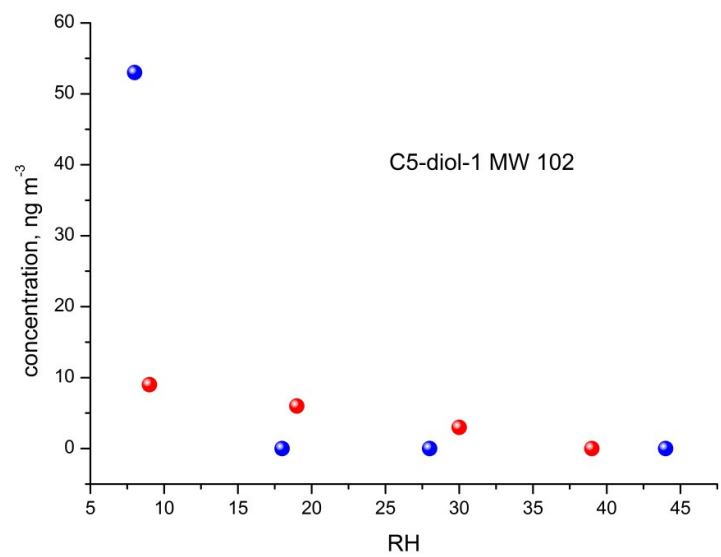
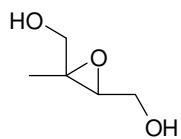
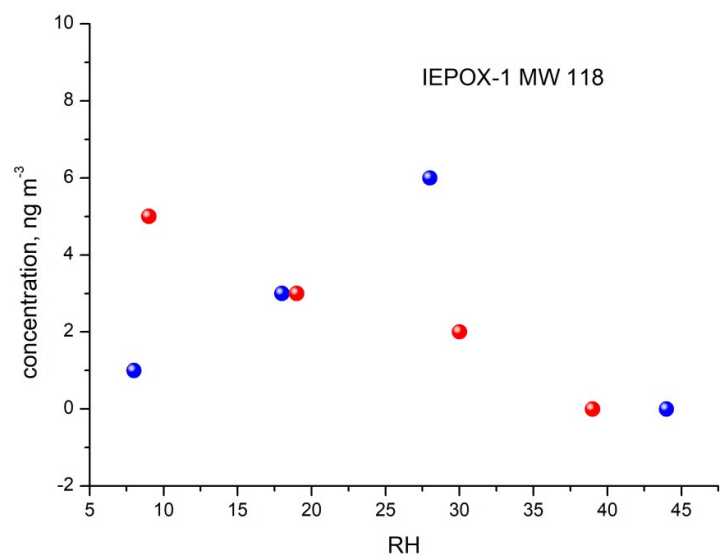
Product	MW	<i>m/z</i>	RH = 8 – 9	RH = 18 – 20	RH = 28 – 30	RH = 39 – 49
2-methylglyceric acid	120		>			
2-methyltetrol OS		244	>			
2-methylthreonic acid NOS		274	>			
furanone OS		211	>			
2-methyltetrols	136		>			
2-methyltetrol NOS		260	>			=
furanetriol OS		213	>	=		
2-methyltetrol OS		215	>	=		
IEPOX-1	118		=	>	=	
dimer of 2-methylglyceric acid	222		<	>		
C5-diol	102		>	<	=	
IEPOX OS		197	>	=		<
2-methylglyceric acid OS		199	=	<		
IEPOX-2	118		<			
2-methylthreonic acid OS		229	<			

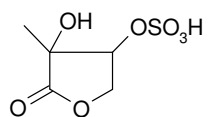
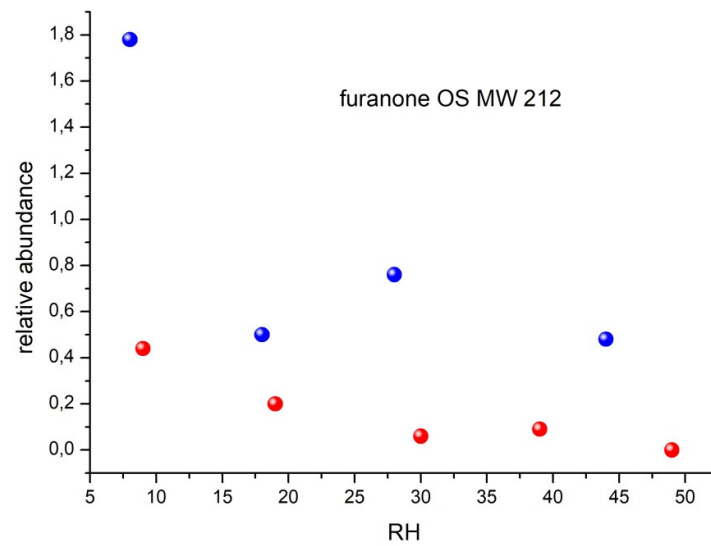
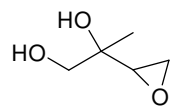
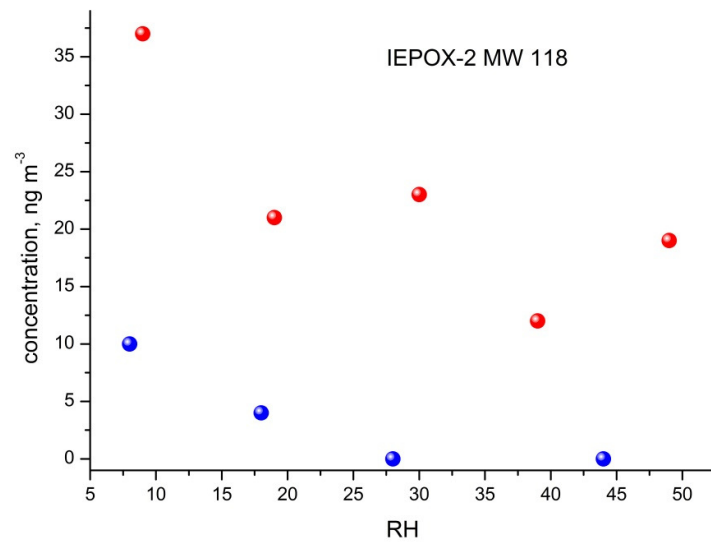
Figure S3. Concentrations or relative abundances of some compounds in acidic seed experiments (blue) and non-acidic seed experiments (red) – influence of Relative Humidity

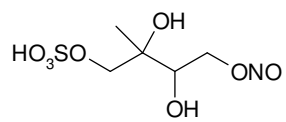
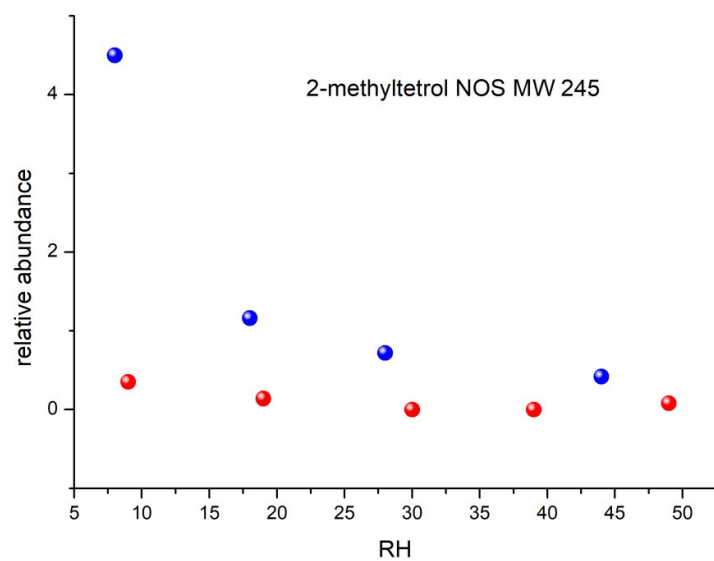
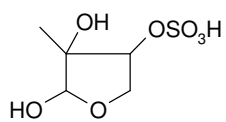
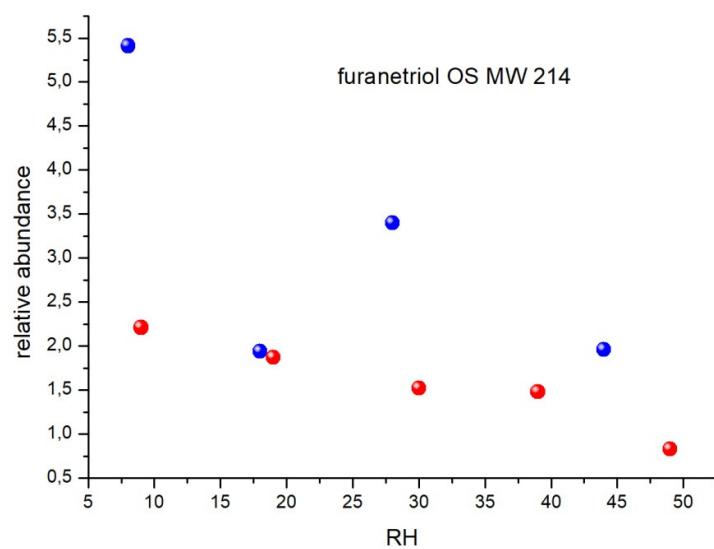


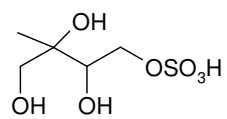
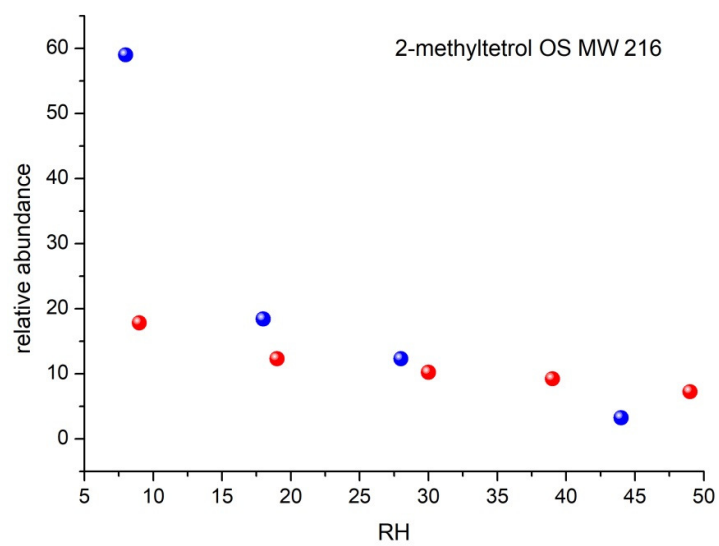
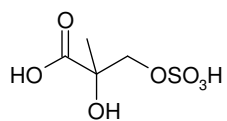
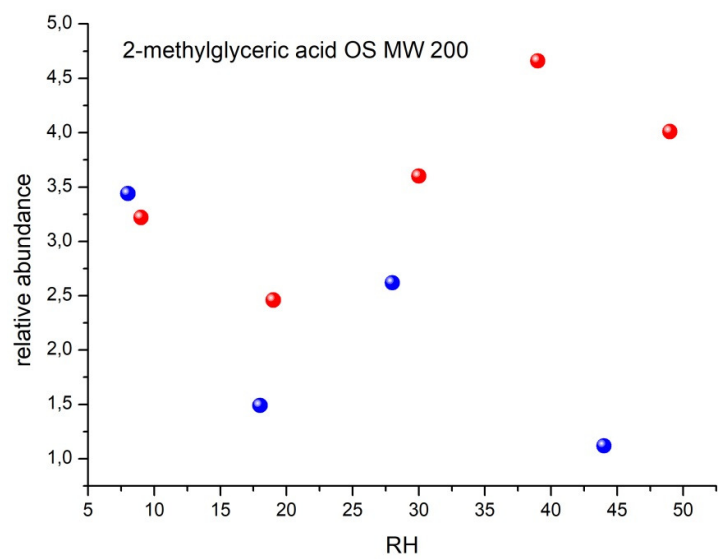


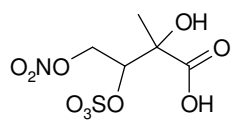
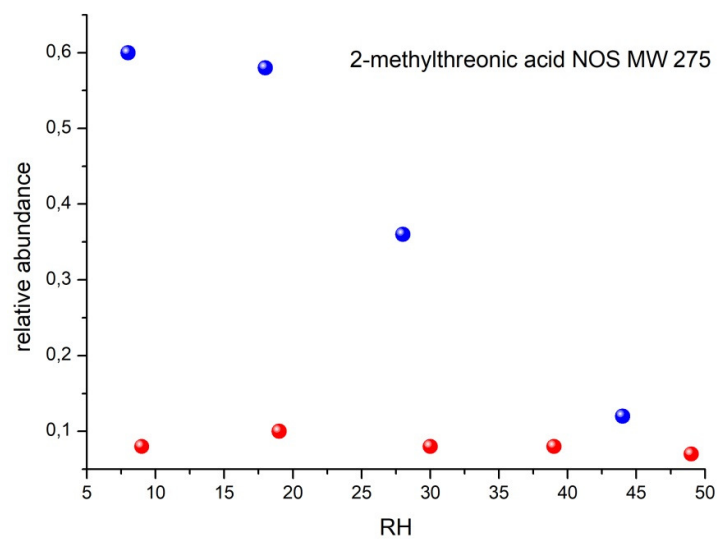
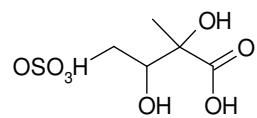
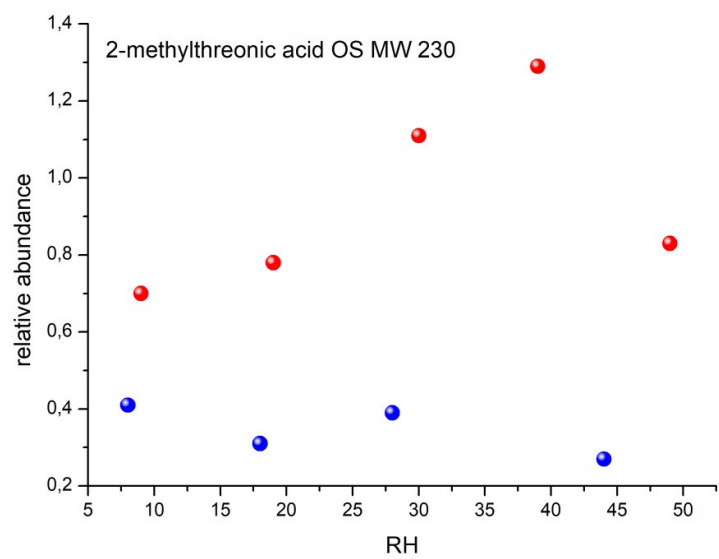
2-methylthreitol (left) and 2-methylerythritol (right)











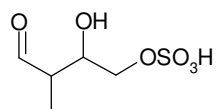
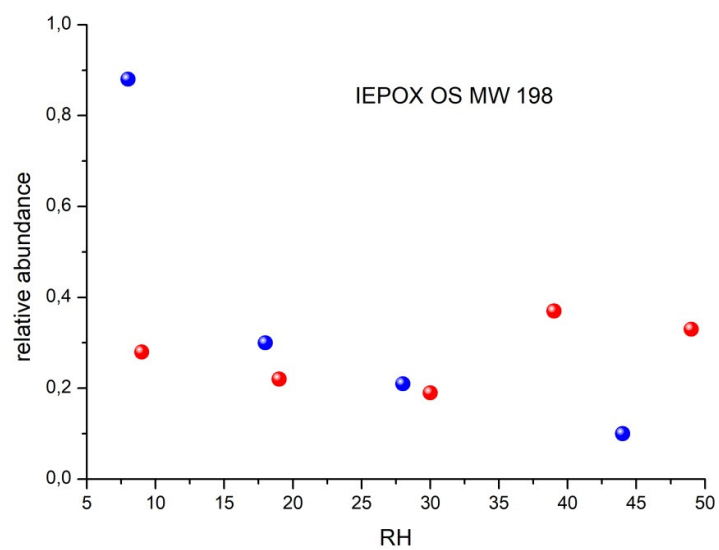
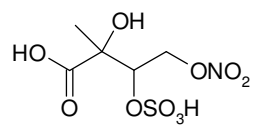
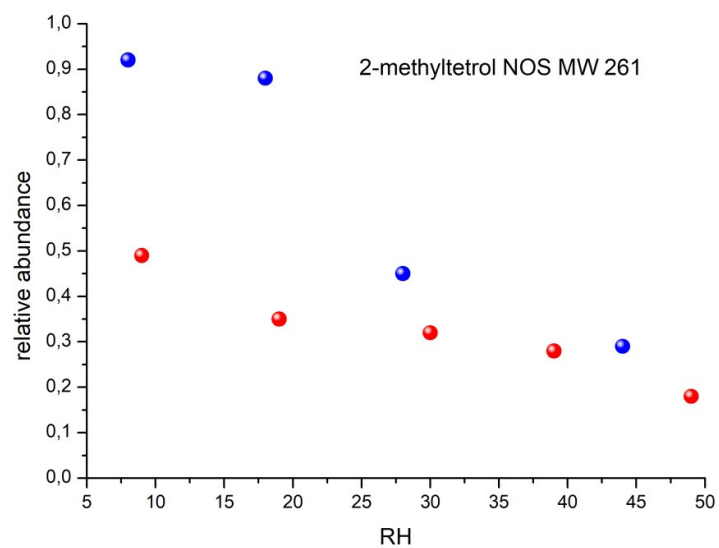


Figure S4. Extracted Ion Chromatograms (EIC) of selected components detected in the respective filter extracts from smog chamber ISO SOA (ER667 – non-acidic seed aerosol; ER662 – acidic seed aerosol) and PM_{2.5} ambient summer aerosol from Godow and Zielonka sites.

