Editor comments

l. 44: Please clarify that these mass yields relate to the fraction of precursor present in the aqueous phase, not to the total phenol mass in the atmosphere.

l. 201/2: The references to the studies by Atkinson and Olariu are somewhat misleading here as they investigated phenol oxidation in the gas phase – which might not result in the same products and/or yields. Please make this clear in the text.

l. 233: What do you mean by 'in the meantime'? Simultaneously in the same step?

Improvements of figures:

Figures 1, 3 (and similar ones): Please use a different color scheme and/or vary symbol types for the various traces of the experiments (e.g. circles, squares, diamonds etc)
Currently, it is hard for readers with color vision deficiencies to distinguish the traces for the different experiments: https://www.color-blindness.com/coblis-color-blindness-simulator/

Figure 3: Please consider using a different color scheme other than 'rainbow scale' for the same reasons as above. Monochromatic schemes going from light to dark color shades are easier to distinguish.

Figures 6 and 7: What is the relevance or meaning of the fit equations (y = A(1-e^B x)) for the formation and decays? Can the rate constants are directly derived from these fit equations?
If so, please describe. If the coefficients are just empirical and are not further used, consider removing the equations from the quite cluttered figure and just refer to the tables in the supporting information.

 Figure 4: Please add the unit of the rate constant to the axis label.

Technical corrections

l. 352: Define 'AAE'

l. 388: reword 'than no extra oxidant' – do you mean 'than without extra oxidant'?

l. 394: Define 'OSc'

l. 431: Can you give an estimate of the relative contributions of aqSOA losses by chemical reactions vs (wet and dry) deposition? How much aqSOA is removed by deposition within 48 hours?