

## ***Interactive comment on “Measurements of the timescales for the mass transfer of water in glassy aerosol at low relative humidity and ambient temperature” by H.-J. Tong et al.***

**Anonymous Referee #4**

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This manuscript investigates the timescales of mass transfer of water in organic particles (sucrose and raffinose) and mixed organic-inorganic particles (sucrose/sodium chloride) above and below the glass transition RH. The paper adds nicely to earlier work (see for example Zobrist et al. 2011), and it is of atmospheric relevance since recent work shows the formation of glasses in the atmosphere may be more important than previously thought. I recommend the paper for publication after the authors have had a chance to address the details below. Note I do not have many comments since the other referees have identified most of the issues with this manuscript that need to be addressed.

C1518

Page 4850, line 1: “neglecting dispersion introduces ....”. What do the authors mean by dispersion? Are they referring to the uncertainty in the refractive index?

Page 4852, line 9: Have the authors used the symbol  $\rho_w$  to represent both the density of water and the wet density?

Page 4863, line 12: I would not call this the ETH model since one of the authors is not from ETH.

Figure 5a, there is no grey shaded envelop in the printed version.

Figure 2 and 3: indicate in the figure caption the compound that is illustrated in the figure.

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Interactive comment on Atmos. Chem. Phys. Discuss., 11, 4843, 2011.

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