Supplementary Materials for Simulating secondary organic aerosol from anthropogenic and biogenic precursors: comparison to outdoor chamber experiments, effect of oligomerization on SOA formation and reactive uptake of aldehydes

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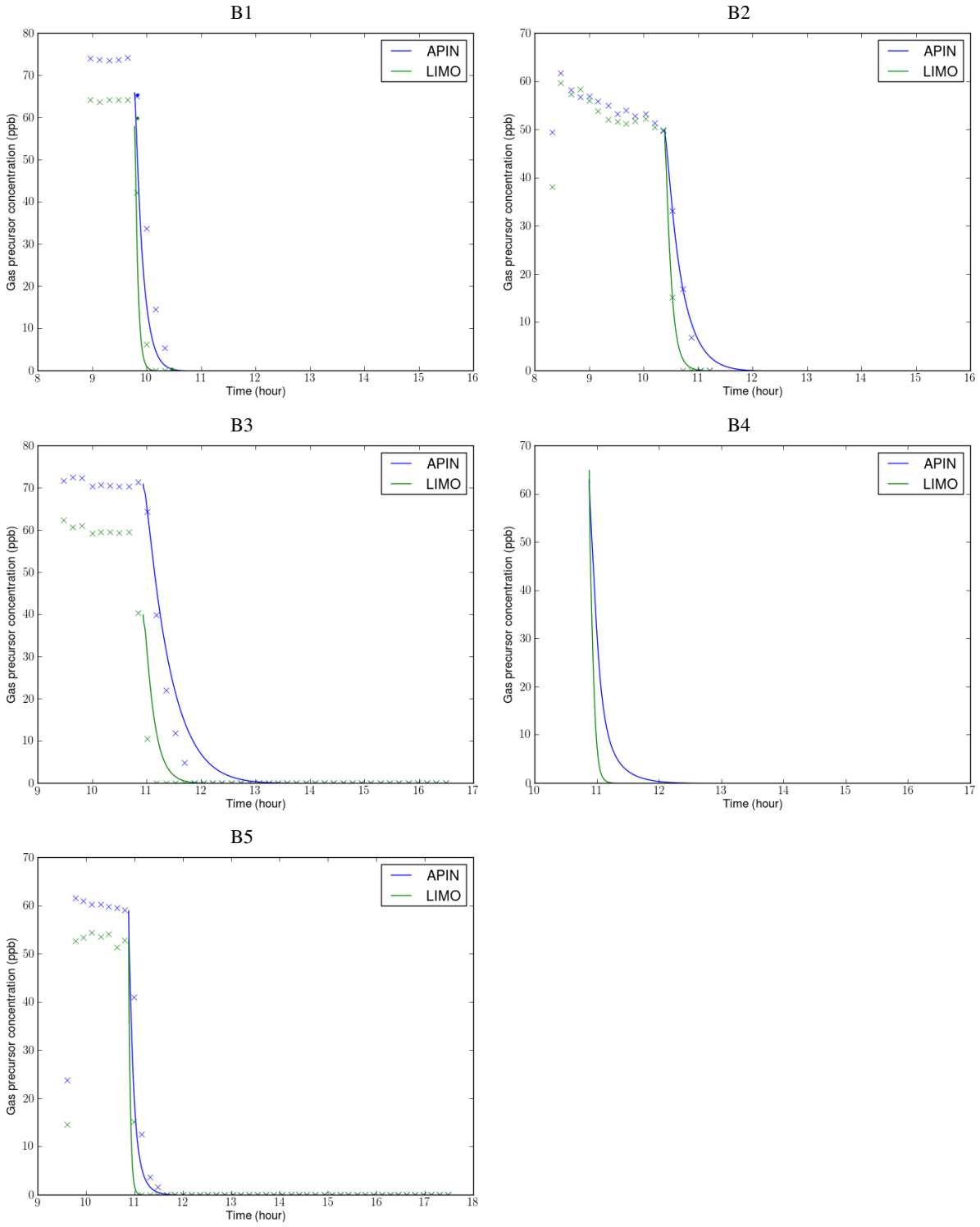

Figure S1. Gas-phase concentrations of precursors for the biogenic experiments without SO_2. Solid lines correspond to models results, cross to GC measurements and dots GCMS measurements.

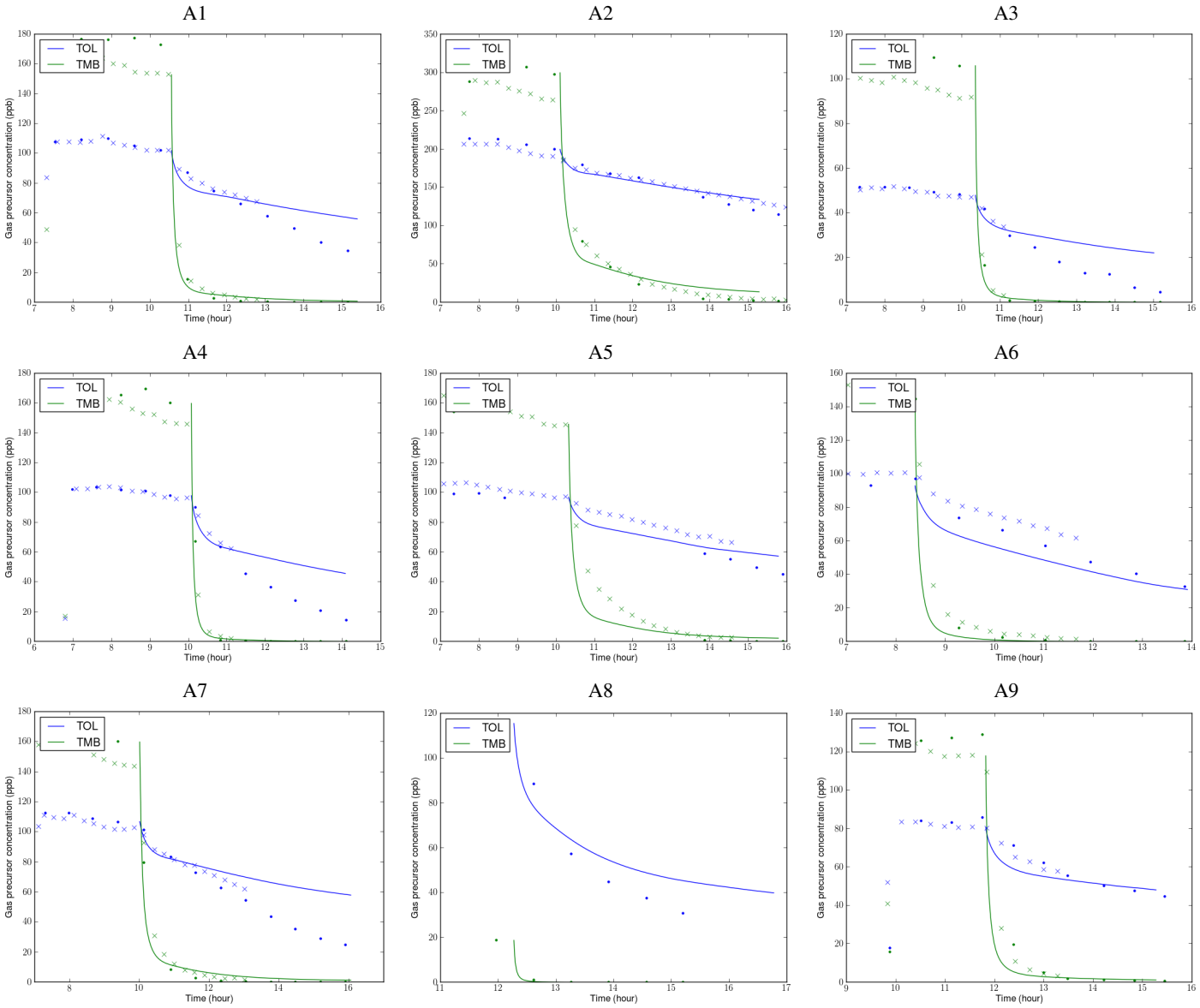

Figure S2. Gas-phase concentrations of precursors for the anthropogenic experiments. Solid lines correspond to models results, cross to GC measurements and dots GCMS measurements.

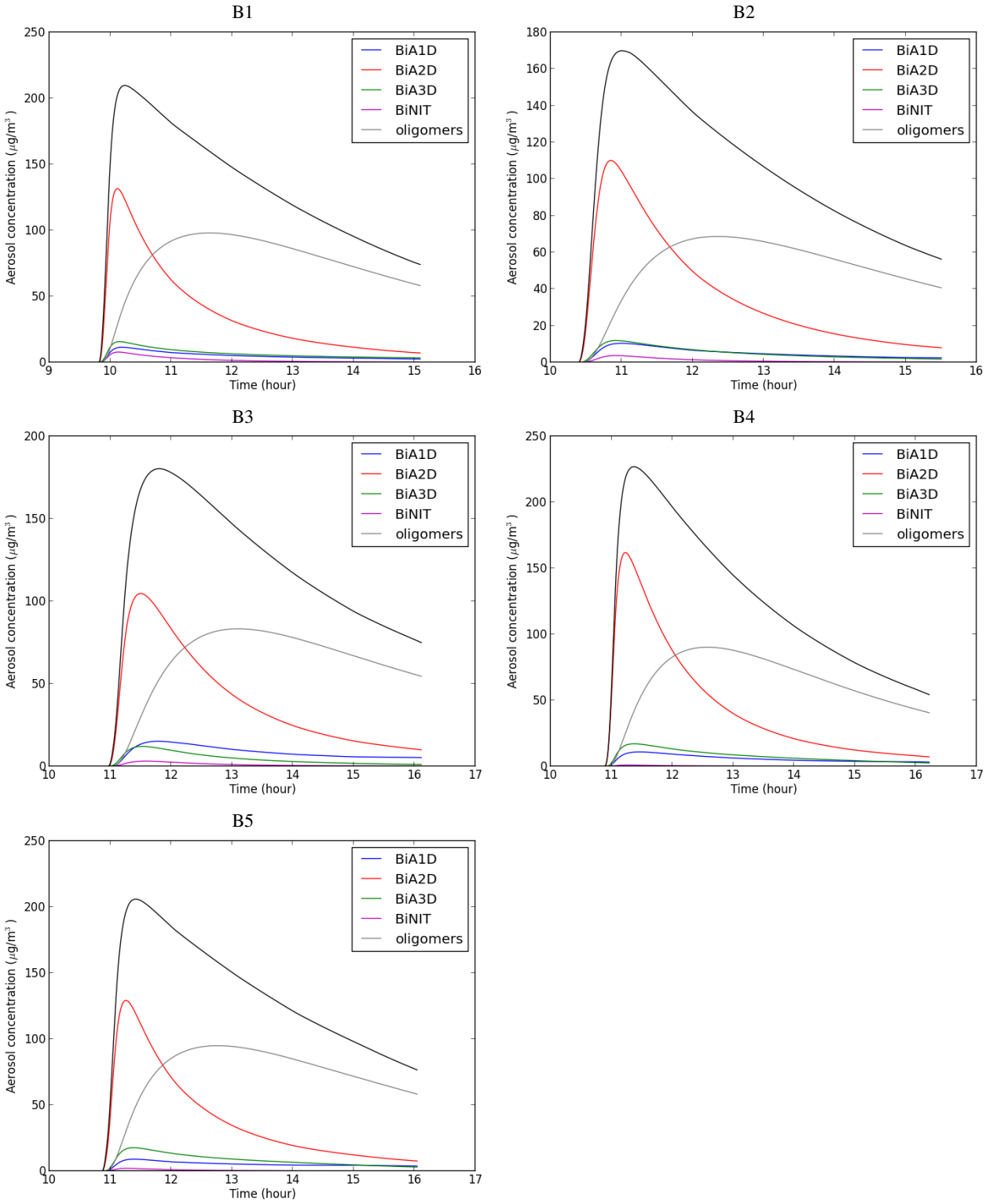

Figure S3. Particle phase concentrations of SVOCs for the biogenic experiments without SO_2 for the simulation with aging and oligomerization and assuming no gas wall losses an inviscid aerosol.

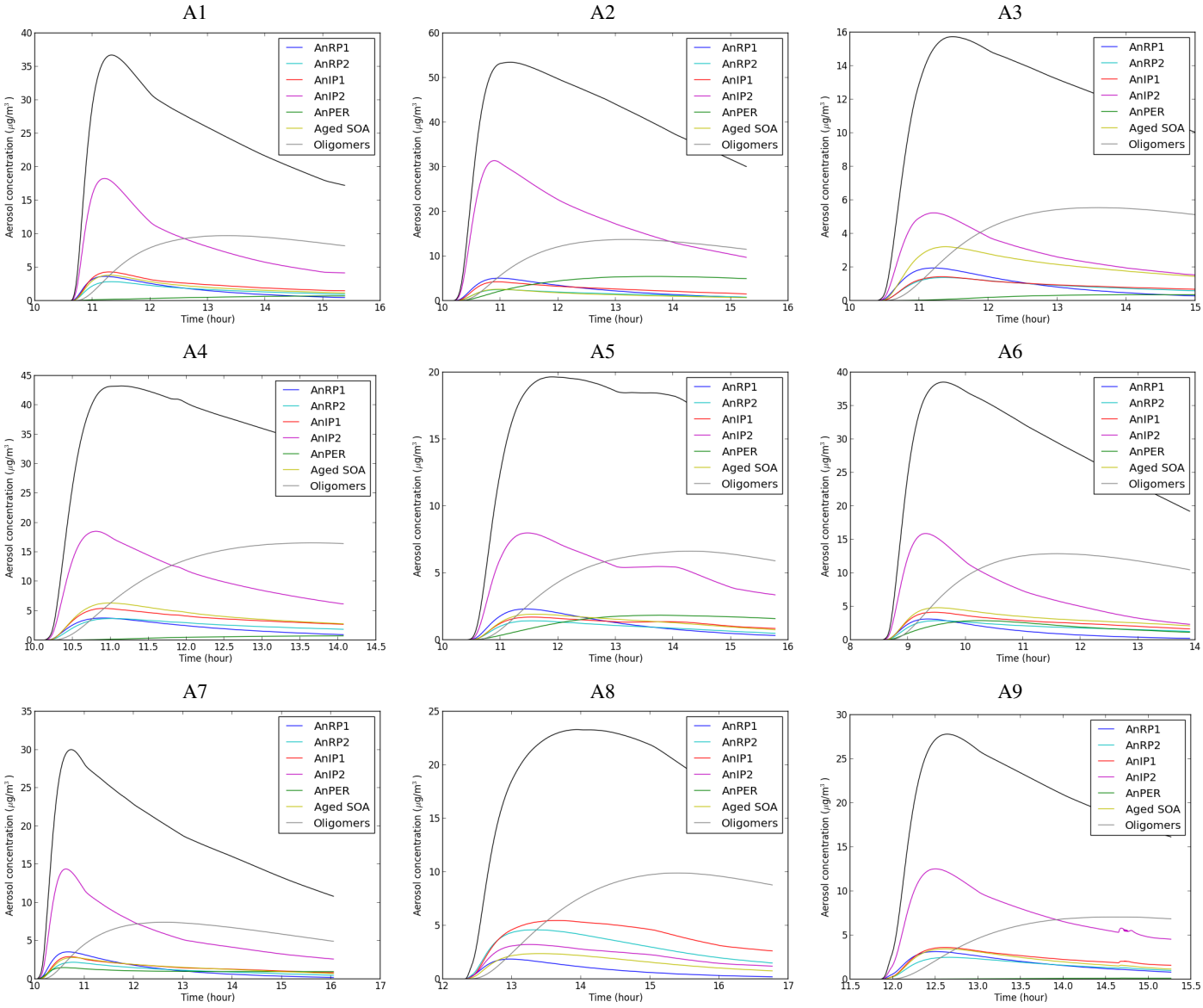

Figure S4. Particle phase concentrations of SVOCs for the anthropogenic experiments for the simulation with aging and oligomerization and assuming no gas wall losses an inviscid aerosol.

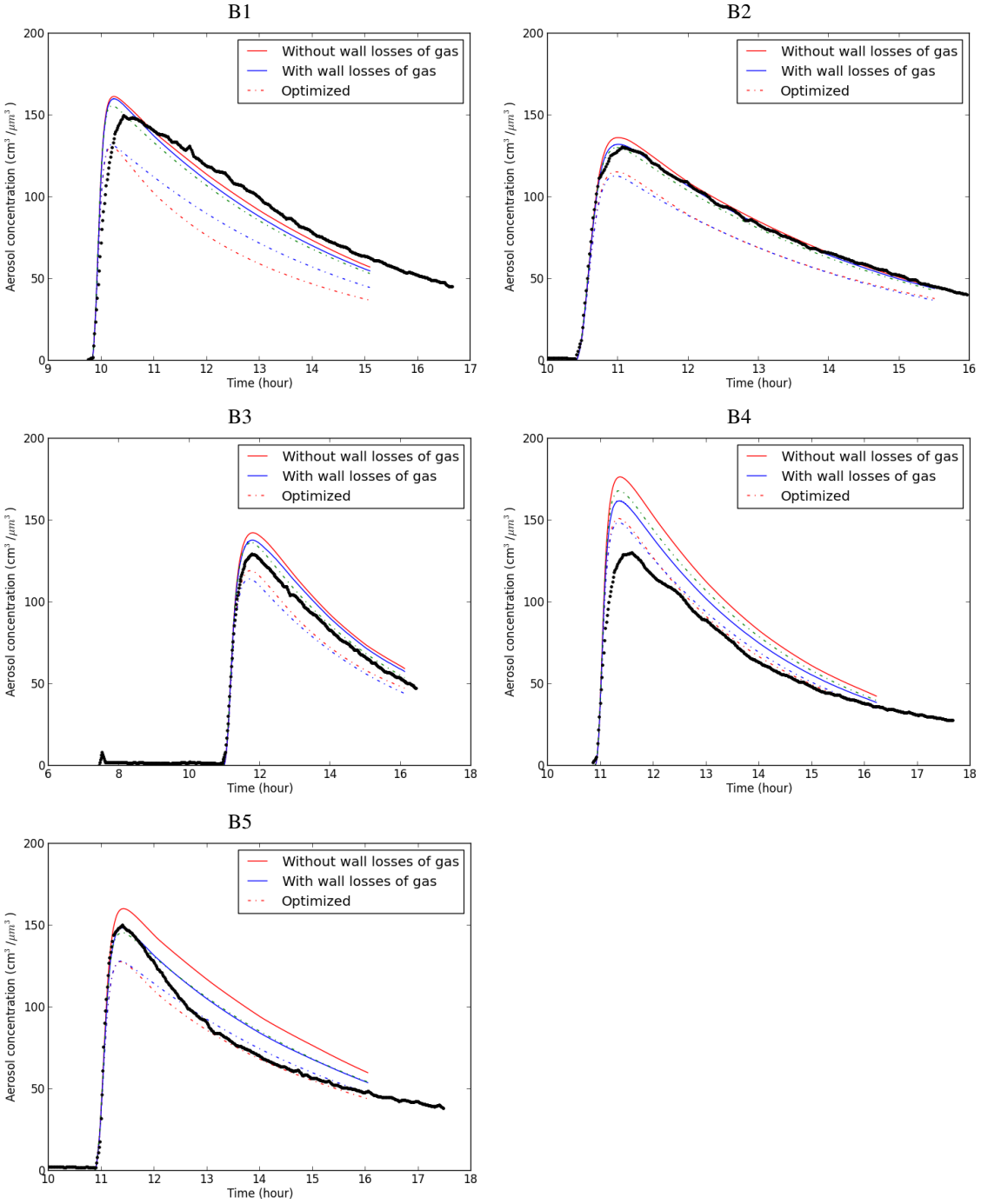

Figure S5. Effect of viscosity and gas wall losses on SOA concentrations for the biogenic experiments without SO_2. The black line corresponds to SMPS measurements, the red lines correspond to modeled SOA concentrations for the inviscid aerosol assumption, the blue lines correspond to modeled SOA concentrations for the viscous aerosol assumption, and the green line correspond to modeled SOA concentrations for the viscous aerosol assumption with a decrease by a factor 3 of volatility. Solid lines corresponds to simulations assuming no gas wall losses, dotted lines with gas wall losses.

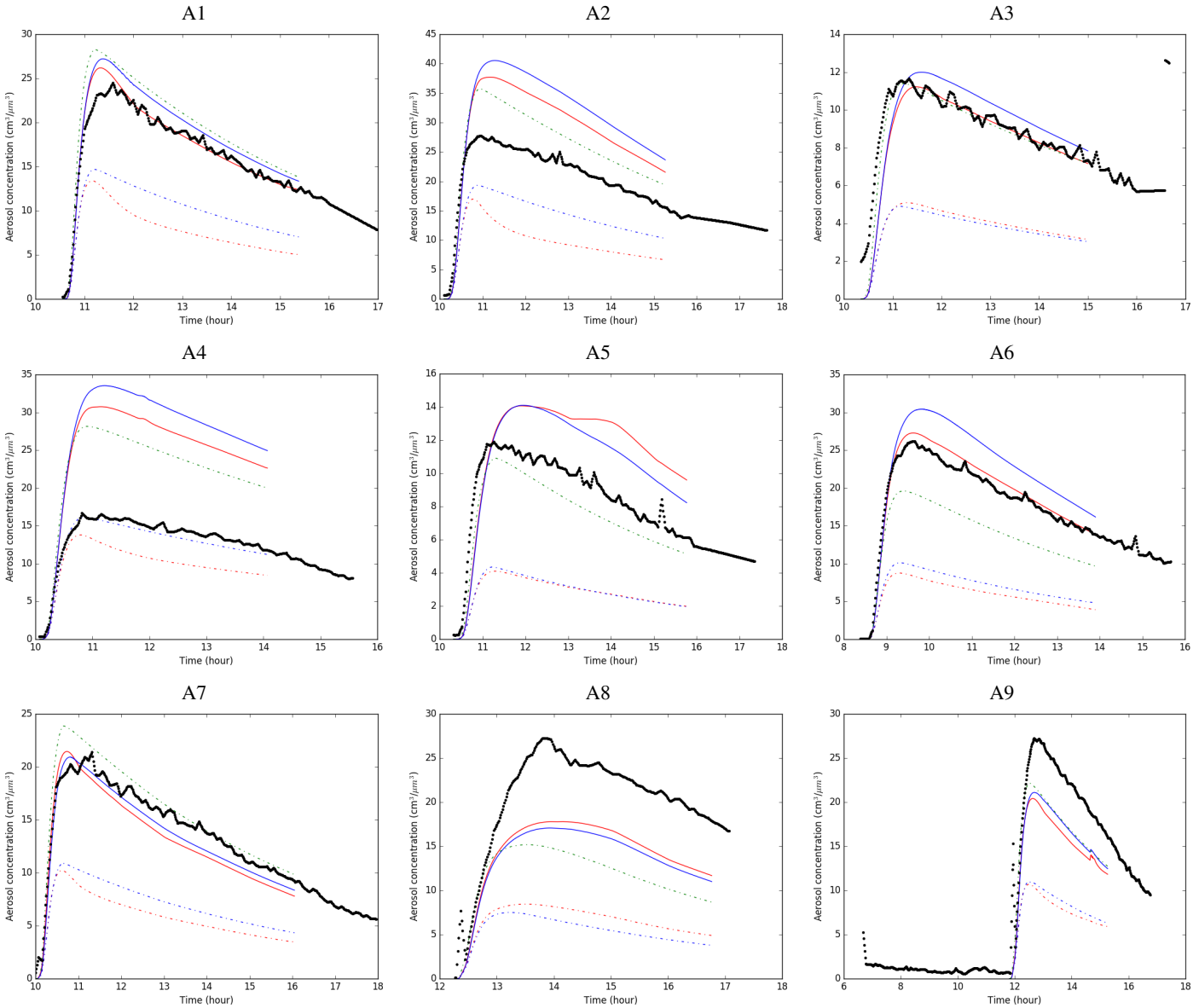

Figure S6. Effect of viscosity and gas wall losses on SOA concentrations for the biogenic experiments without SO_2. The black line corresponds to SMPS measurements, the red lines correspond to modeled SOA concentrations for the inviscid aerosol assumption, the blue lines correspond to modeled SOA concentrations for the viscous aerosol assumption, and the green line correspond to modeled SOA concentrations for the viscous aerosol assumption with a decrease by a factor 3 of volatility. Solid lines corresponds to simulations assuming no gas wall losses, dotted lines with gas wall losses.