Supplementary material for "Resolving both entrainment-mixing and number of activated CCN in deep convective clouds" by E. Freud, D. Rosenfeld, D. Axisa, and J. R. Kulkarni

This paper describes a methodology for deriving the number concentration of activated cloud condensation nuclei (N_a) in a cloud or a cluster of clouds while taking into account the effects of mixing with entrained ambient air.
The examples that are provided in the manuscript which accompany the steps for deriving N_a are all taken from a single profile from flight 20090825 over central India.
As mentioned in the manuscript, we applied the same methodology to many more profiles in various deep convective clouds at different locations.
Here we provide reproductions of Figs. 2 through 4 from the manuscript with three additional profiles from India and Israel.
This is for showing the reader how the steps of the described methodology are expressed for different cases.

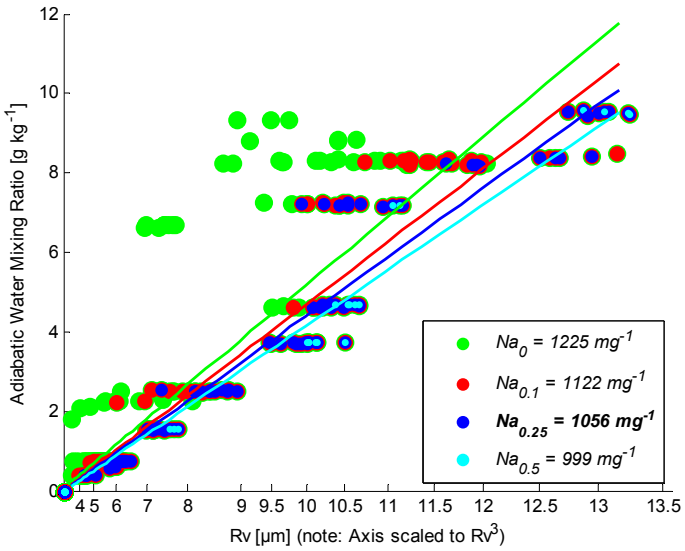

Fig. S1: Same as Fig. 2 , but for a profile over central India from flight 20090814

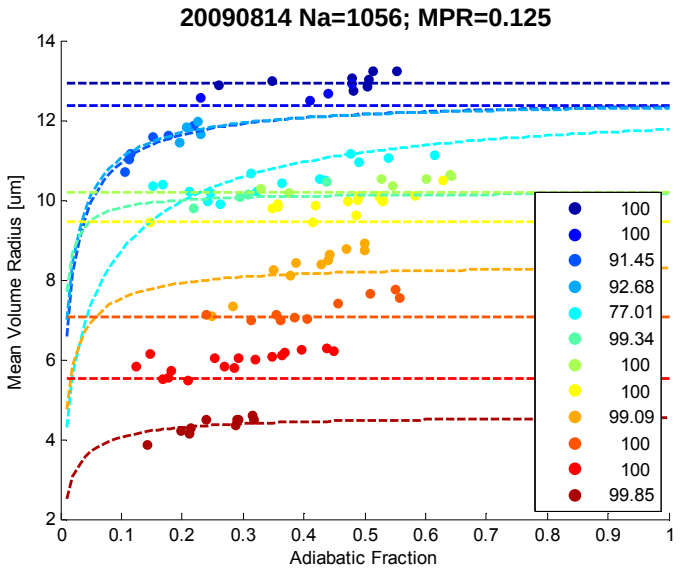

Fig. S2: Same as Fig. 3a, but for a profile over central India from flight 20090814

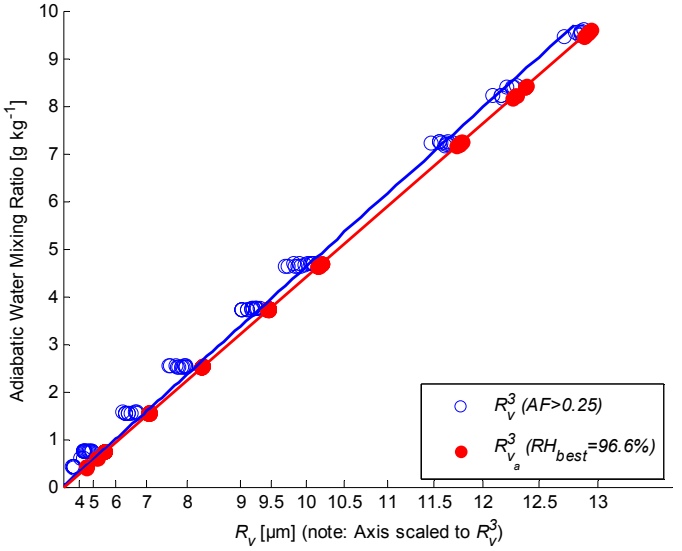

Fig. S3: Same as Fig. 4 , but for a profile over central India from flight 20090814

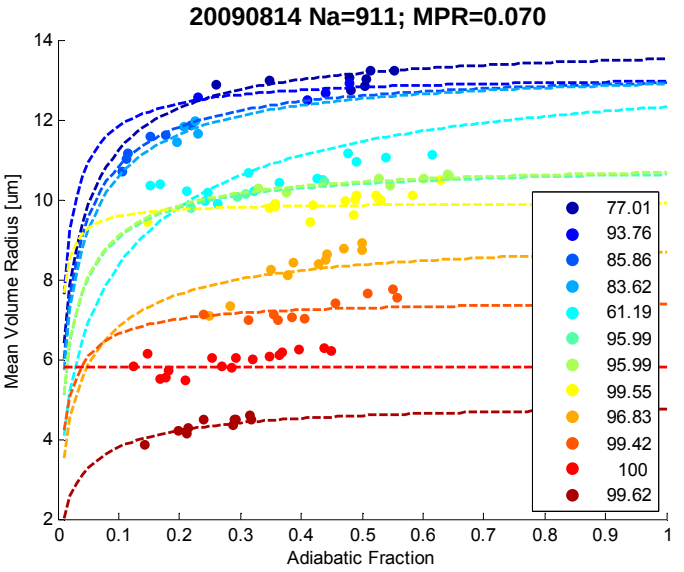

Fig. S4: Same as Fig. 3b , but for a profile over central India from flight 20090814

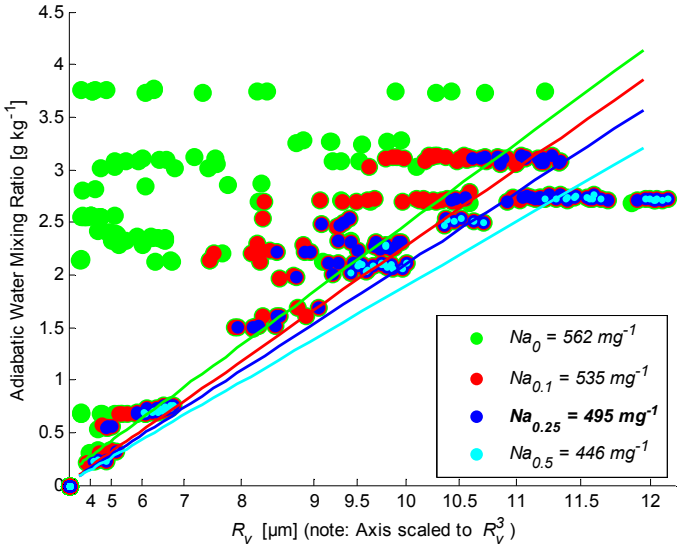

Fig. S5: Same as Fig. 2, but for a profile approximately 60 km inland from the Israeli coast on flight 20100226

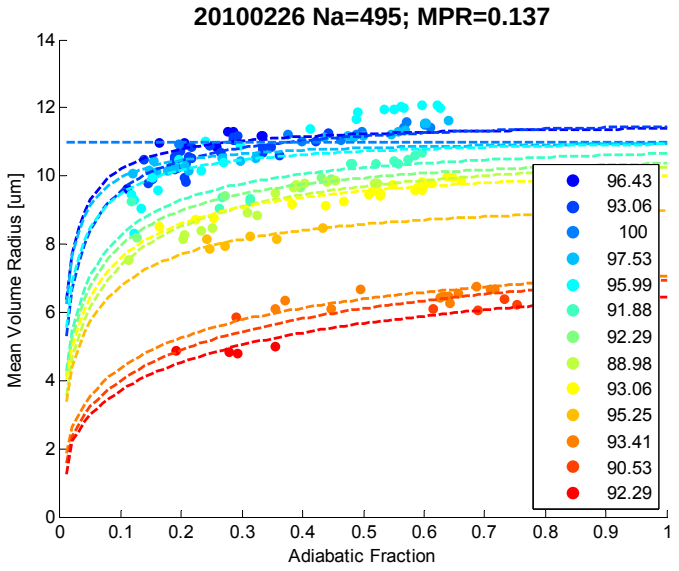

Fig. S6: Same as Fig. 3a , but for a profile approximately 60 km inland from the Israeli coast on flight 20100226

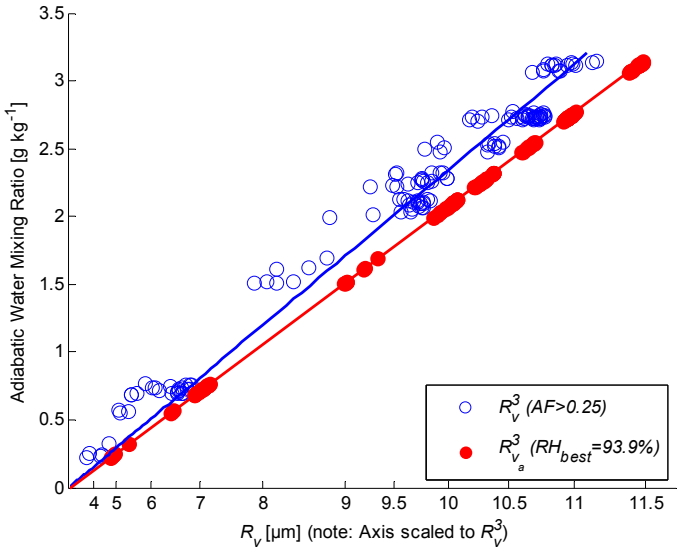

Fig. S7: Same as Fig. 4, but for a profile approximately 60 km inland from the Israeli coast on flight 20100226

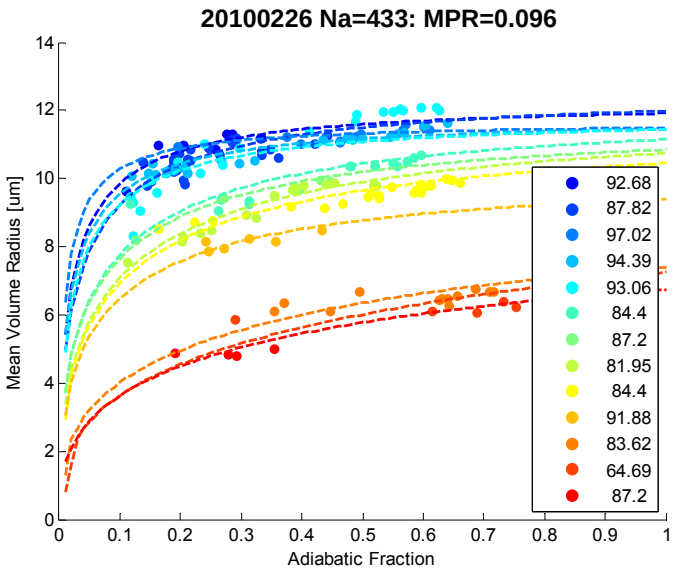

Fig. S8: Same as Fig. 3b , but for a profile approximately 60 km inland from the Israeli coast on flight 20100226

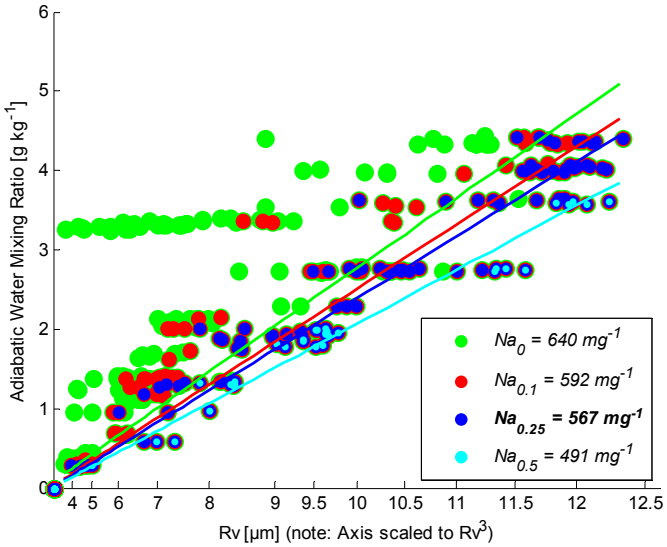

Fig. S9: Same as Fig. 2 , but for a profile approximately 10 km offshore on flight 20100226 over Israel

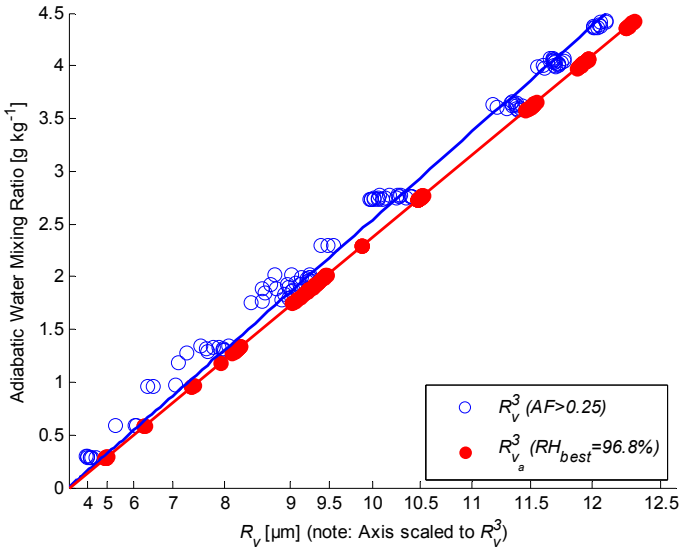

Fig. S11: Same as Fig. 4 , but for a profile approximately 10 km offshore on flight 20100226 over Israel

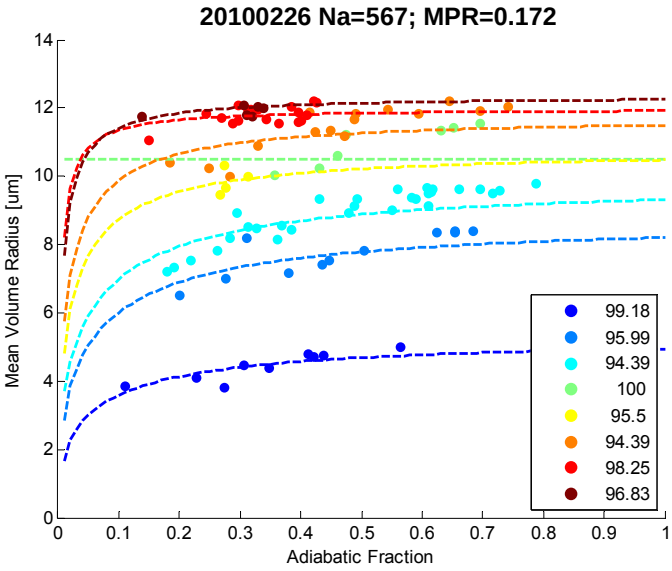

Fig. S10: Same as Fig. 3a , but for a profile approximately 10 km offshore on flight 20100226 over Israel

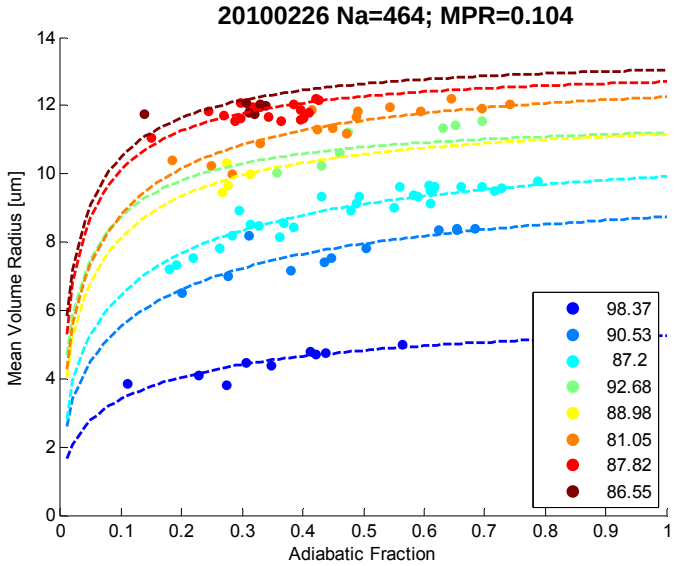

Fig. S12: Same as Fig. 3b , but for a profile approximately 10 km offshore on flight 20100226 over Israel