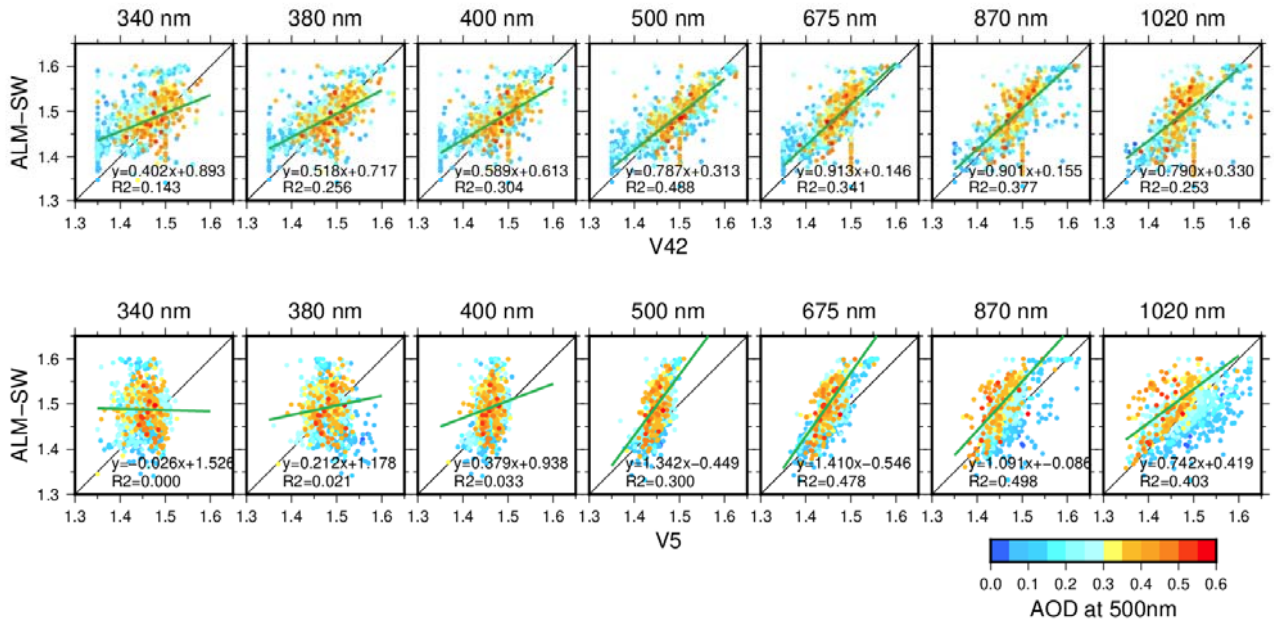

Figure S1: Comparisons of the real part of the refractive index between ALM-SW, V42, and V5. Colors indicate the aerosol optical depth at 500 nm. "y=ax+b" and "R2" are the linear fitting and the coefficient of the determination for the data of the aerosol optical depth more than 0.3.

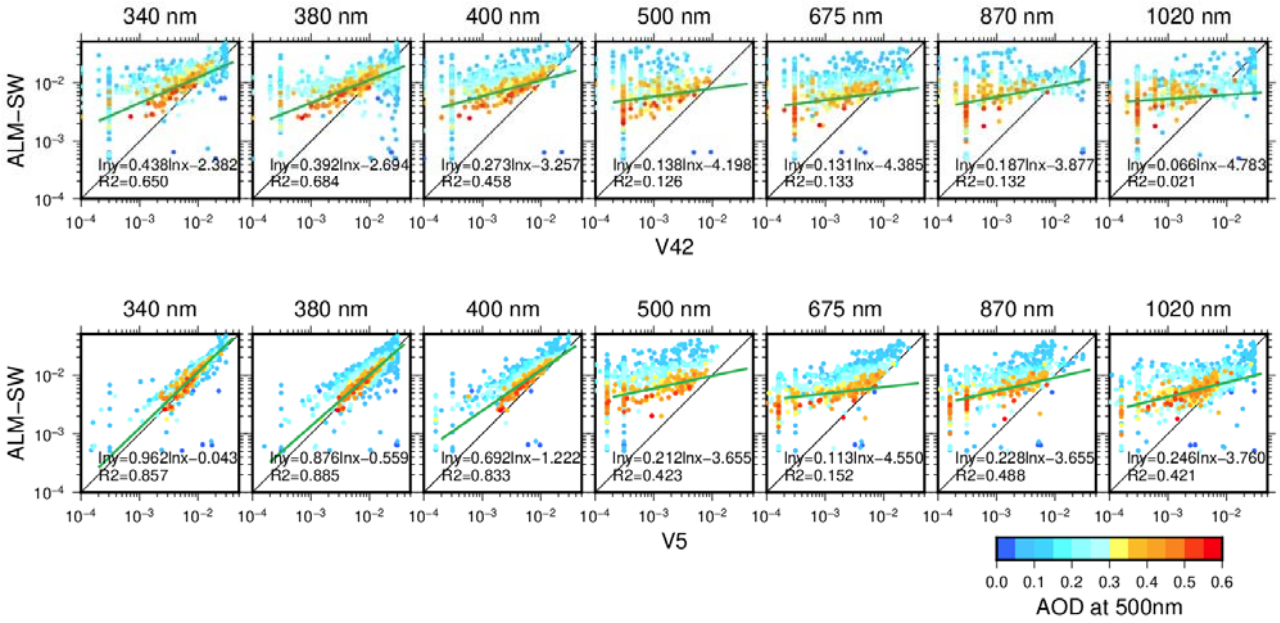

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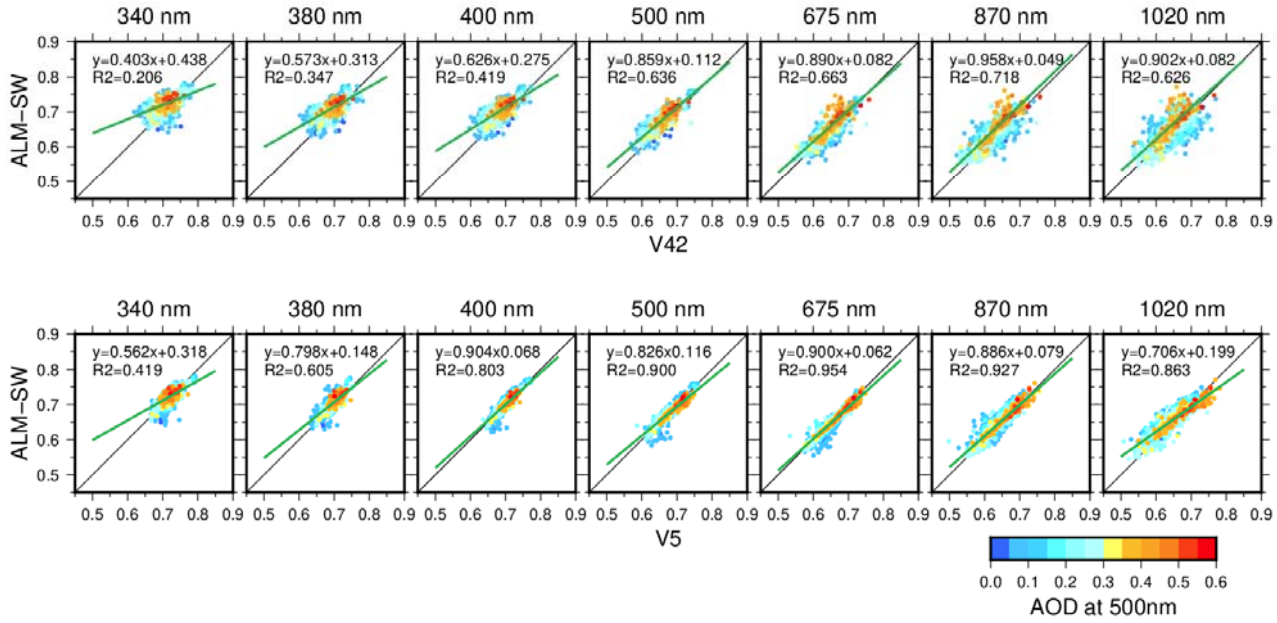
Figure S2: Comparisons of the imaginary part of the refractive index between ALM-SW, V42, and V5. Colors indicate the aerosol optical depth at 500 nm. "y=ax+b" and "R2" are the linear fitting and the coefficient of the determination for the data of the aerosol optical depth more than 0.3.



10 **Figure S3: Comparisons of the asymmetry factor between ALM-SW, V42, and V5. Colors indicate the aerosol optical depth at 500 nm. "y=ax+b" and "R2" are the linear fitting and the coefficient of the determination for the data of the aerosol optical depth more than 0.3.**

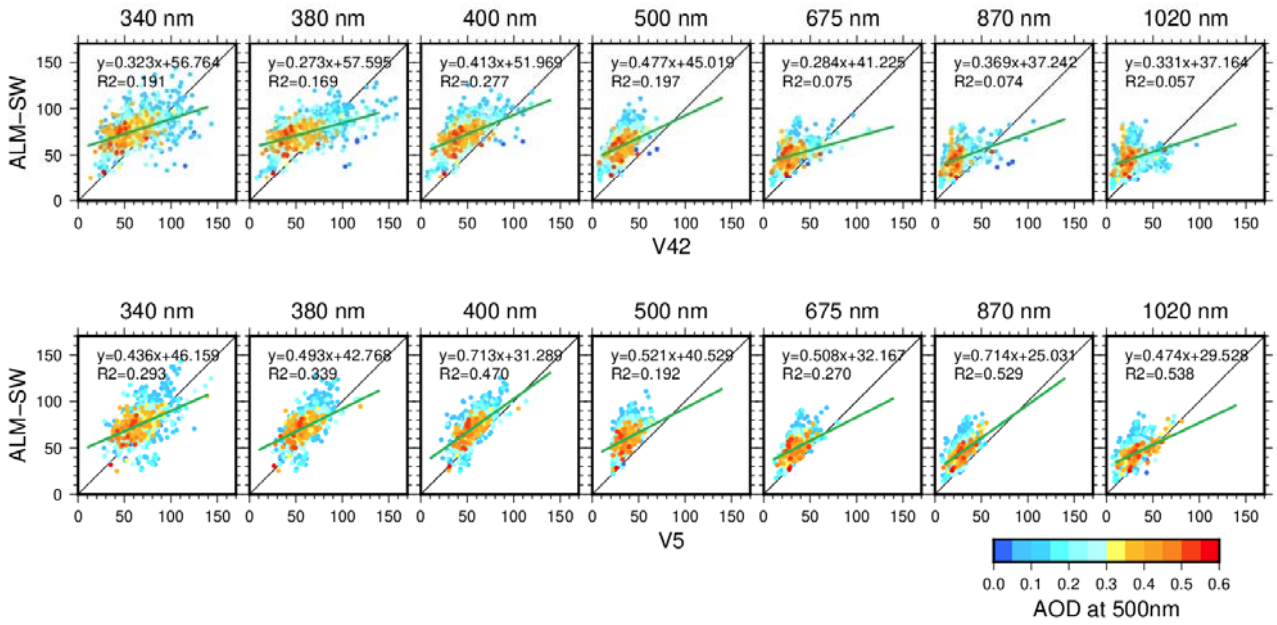


Figure S4: Comparisons of the lidar ratio between ALM-SW, V42, and V5. Colors indicate the aerosol optical depth at 500 nm. "y=ax+b" and "R2" are the linear fitting and the coefficient of the determination for the data of the aerosol optical depth more than 0.3.