Name of simulations	Description of setup	ΔAIE_{tot} ($W\,m^{-2}$)
NOSOALVDMS	None of the SOA produced through Reaction (R3) is allowed to nucleate new particles. Reaction (R3) is thus replaced with $DMS + OH \rightarrow 0.75 \cdot SO_2 + 0.5 \cdot HO_2 + 0.143 \cdot SOA_{SV}$.	+0.25
NOSOALVBVOC	None of the SOA produced through Reaction (R6) is allowed to nucleate new particles. Reaction (R6) is thus replaced with monoterpene $+ O_3 \rightarrow 0.15 \cdot SOA_{SV}$.	+0.26
NOSOA	No SOA production from DMS oxidation. Reaction (R3) is thus replaced with $DMS + OH \rightarrow 0.75 \cdot SO_2 + 0.5 \cdot HO_2$.	+0.14
NACTOFF	No activation from particle mixture number 1 (Kirkevåg et al., 2018). This mixture corresponds to the nucleation mode in modal aerosol schemes, and this is where we find the newly formed SOA and SO_4 aerosols.	−0.03
DIURNALNO3	Add a daily cycle to the concentrations of NO_3 that come from prescribed monthly mean values.	+0.26
FREEMET	Apply free meteorology instead of nudged winds.	$+0.3 \pm 0.2$