

Name	QBO nudged	Aerosol feedback	Sedimentation scheme	Coagulation efficiency α	Emission rate (Tg SO ₂)
REF	Yes	Yes	Walcek	$\alpha = 1$ everywhere	14
REF12	Yes	Yes	Walcek	$\alpha = 1$ everywhere	12
UPWIND	Yes	Yes	Upwind	$\alpha = 1$ everywhere	14
noRAD	Yes	No	Walcek	$\alpha = 1$ everywhere	14
noQBO	No	Yes	Walcek	$\alpha = 1$ everywhere	14
noRADnoQBO	No	No	Walcek	$\alpha = 1$ everywhere	14
COAG	Yes	Yes	Walcek	α based on a Lennard–Jones potential: $\alpha \sim 1$ in continuum regime ($K_n \gg 1$); $\alpha \sim 1\text{--}3$ in transition regime ($K_n \sim 1\text{--}10$); $\alpha \ll 1$ in free molecular regime ($K_n \ll 1$).	14