Name	CO_2 scenario	Calcification scenario	Sensitivity experiment description
P0	Pre-industrial	Constant	Pre-industrial control run, all variables in quasi-equilibrium
P1	Pre-industrial	Constant	Coefficient A for $k_d^{\text{first guess}}$ increased from 5.8 to 6.0
P2	Pre-industrial	Constant	Coefficient A for $k_d^{\text{first guess}}$ increased by 0.5 in bottom grid cells
P3	Pre-industrial	Constant	Clay flux increased from 25 to 100 % dust input
P4	Pre-industrial	Constant	No scavenging to POC
P5	Pre-industrial	Constant	No scavenging to $CaCO_3$
C8.5	RCP8.5	Constant	RCP8.5 control, only change is atmospheric CO_2
C6.0	RCP6.0	Constant	RCP6.0 control, only change is atmospheric CO_2
C4.5	RCP4.5	Constant	RCP4.5 control, only change is atmospheric CO_2
C2.6	RCP2.6	Constant	RCP2.6 control, only change is atmospheric CO_2
L8.5	RCP8.5	Linear	Calcification reduction
L6.0	RCP6.0	Linear	Calcification reduction
L4.5	RCP4.5	Linear	Calcification reduction
L2.6	RCP2.6	Linear	Calcification reduction
M8.5	RCP8.5	Moderate	Calcification reduction
M6.0	RCP6.0	Moderate	Calcification reduction
M4.5	RCP4.5	Moderate	Calcification reduction
M2.6	RCP2.6	Moderate	Calcification reduction
E8.5	RCP8.5	Extreme	Calcification reduction
E6.0	RCP6.0	Extreme	Calcification reduction
E4.5	RCP4.5	Extreme	Calcification reduction
E2.6	RCP2.6	Extreme	Calcification reduction
S1	RCP8.5	Moderate	As M8.5 but overturning reduced with rising CO_2
S2	RCP8.5	Moderate	As M8.5 but $V_{\max}$ for nutrient uptake reduced with rising CO_2
S3	RCP8.5	Moderate	As M8.5 but particle sinking velocity reduced with rising CO_2
S4	RCP8.5	Moderate	As M8.5 but changes as in S1M8.5, S2M8.5, S3M8.5 together
S5	RCP8.5	Extreme	As E8.5 but changes as in S1M8.5, S2M8.5, S3M8.5 together