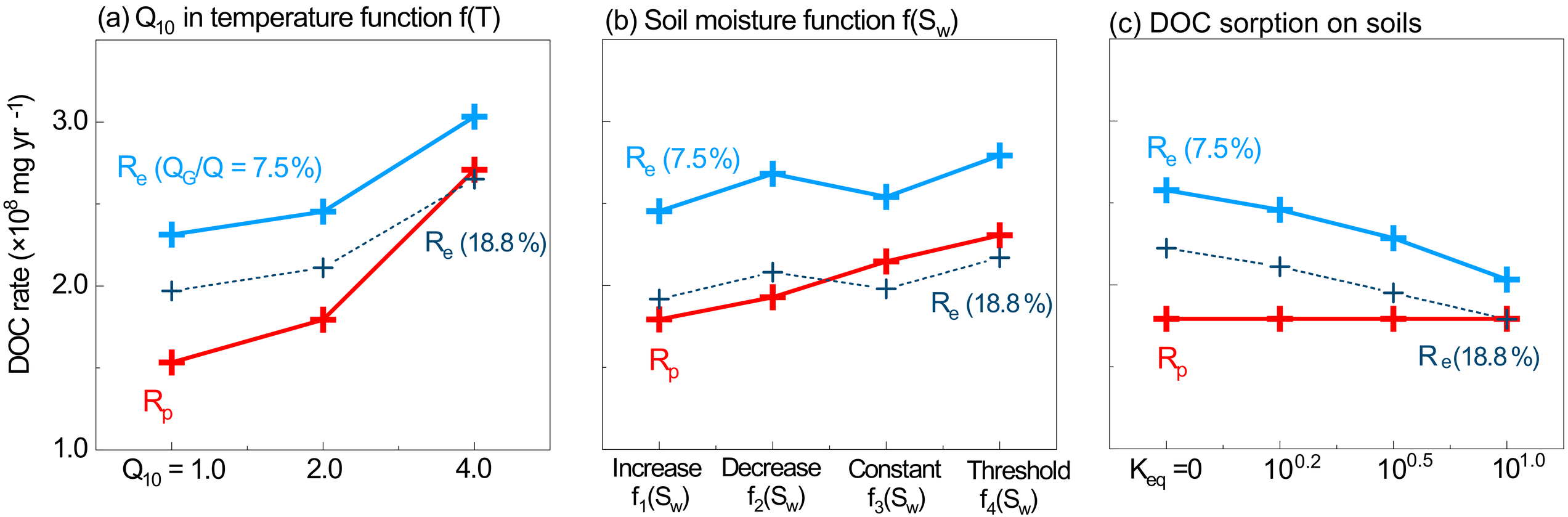
(a) Q_{10} in temperature function f(T)
(b) Soil moisture function $f(S_w)$
(c) DOC sorption on soils
DOC rate ($\times 10^8$ mg yr $^{-1}$)
3.0
2.0
1.0
R_e (Q_G/Q = 7.5%)
R_e (18.8%)
R_p
Q_{10} = 1.0
2.0
4.0
R_e (7.5%)
R_e (18.8%)
R_p
Increase $f_1(S_w)$
Decrease $f_2(S_w)$
Constant $f_3(S_w)$
Threshold $f_4(S_w)$
R_e (7.5%)
R_p
R_e(18.8%)
K_{eq} =0
$10^{0.2}$
$10^{0.5}$
$10^{1.0}$