

RE6 parameter	Spearman's $\rho$ with CP <sub>SOC</sub> proportion	$p$ value	Variable importance to predict CP <sub>SOC</sub> proportion in the RE6-RF regression model (rank)
$T_{10\_HC\_PYR}$	-0.36	***	20
$T_{30\_HC\_PYR}$	-0.12	NS	30
$T_{50\_HC\_PYR}$	0.00	NS	29
$T_{70\_HC\_PYR}$	0.09	NS	21
$T_{90\_HC\_PYR}$	0.55	***	18
$T_{10\_CO\_PYR}$	-0.21	*	7
$T_{30\_CO\_PYR}$	-0.39	***	12
$T_{50\_CO\_PYR}$	-0.33	**	14
$T_{70\_CO\_PYR}$	-0.23	*	23
$T_{90\_CO\_PYR}$	-0.09	NS	22
$T_{10\_CO_2\_PYR}$	0.07	NS	13
$T_{30\_CO_2\_PYR}$	0.71	***	4
$T_{50\_CO_2\_PYR}$	0.80	***	1
$T_{70\_CO_2\_PYR}$	0.78	***	2
$T_{90\_CO_2\_PYR}$	0.66	***	17
$T_{10\_CO\_OX}$	0.50	***	5
$T_{30\_CO\_OX}$	0.71	***	16
$T_{50\_CO\_OX}$	0.64	***	28
$T_{70\_CO\_OX}$	0.42	***	27
$T_{90\_CO\_OX}$	0.14	NS	25
$T_{10\_CO_2\_OX}$	0.72	***	10
$T_{30\_CO_2\_OX}$	0.83	***	3
$T_{50\_CO_2\_OX}$	0.82	***	6
$T_{70\_CO_2\_OX}$	0.80	***	8
$T_{90\_CO_2\_OX}$	0.54	***	19
$I$ index	0.04	NS	26
$R$ index	-0.01	NS	24
TLHC index	-0.02	NS	15
HI	-0.78	***	9
OI <sub>RE6</sub>	0.42	***	11