Supplementary material

Table S1 Calculated cumulative CO_2 content (p_c/p_{tot}), fraction modern ($F^{14}C_C$) and corresponding age (^{14}C age) at the end of each time interval. Note that at time t = 0 s and p_c/p_{tot} = 0 $F^{14}C_C$ is extrapolated value (lines marked orange). Estimated dead carbon content was calculated from the extrapolated (containing no "dead carbon") and value at the end of reaction (mixture of anthropogenic and "dead carbon").

Sample ID	Time (s)	p_c/p_{tot} (%)	$F^{14}C_C$	^{14}C age (BP)	Estimated dead carbon content (%)
MODIS2.1 Z-7093	0	0	0.9260 ± 0.0040	618 ± 35	0.9
	3	20.0	0.9236 ± 0.0030	639 ± 26	
	15	72.0	0.9202 ± 0.0030	668 ± 26	
	end	100	0.9175 ± 0.0030	691 ± 26	
MODIS2.2 Z-7094	0	0	0.9320 ± 0.0040	566 ± 34	10.0
	3	13.6	0.9204 ± 0.0030	666 ± 26	
	15	38.8	0.8982 ± 0.0030	862 ± 27	
	end	100	0.8390 ± 0.0030	1411 ± 29	
MODIS2.3 Z-7095	0	0	0.8070 ± 0.0040	1723 ± 40	2.9
	3	8.9	0.8043 ± 0.0030	1750 ± 30	
	15	49.9	0.7921 ± 0.0030	1872 ± 30	
	end	100	0.7839 ± 0.0030	1956 ± 31	
	0	0	0.8050 ± 0.0040	1742 ± 40	2.6
	15	5.3	0.8030 ± 0.0030	1762 ± 30	
	20	8.9	0.8018 ± 0.0030	1774 ± 30	