

Electronic Supplementary Information

For the article “**Kinetics of the defunctionalization of oxidized few-layer graphene nanoflakes**” by Sergei A. Chernyak, Anton S. Ivanov, Angelina M. Podgornova, Ekaterina A. Arkhipova, Stepan Yu. Kupreenko, Alexei V. Shumyantsev, Natalia E. Strokova, Konstantin I. Maslakov, Serguei V. Savilov, Valery V. Lunin.

Kissinger's plots

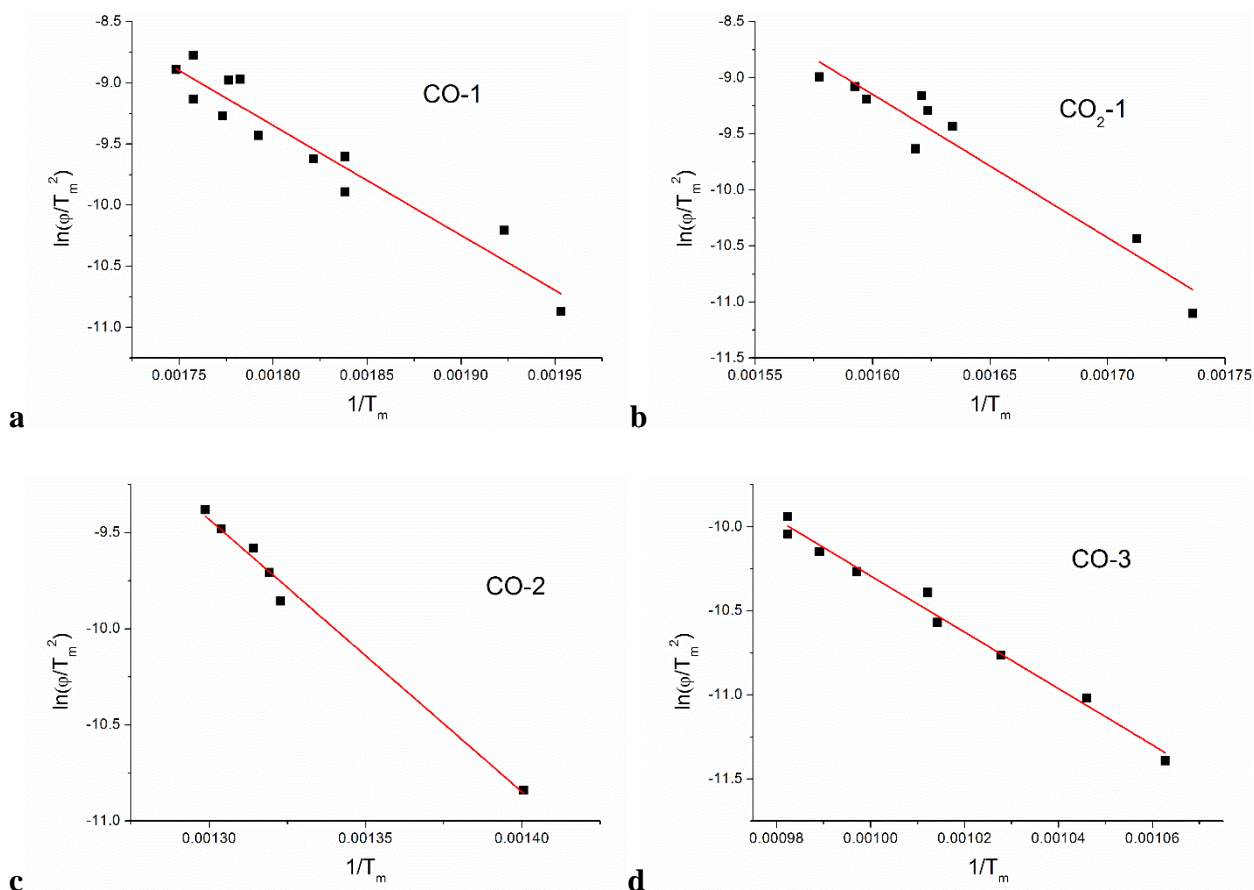


Fig.S1. Kissinger's plots for the decomposition processes marked in Fig.3 for the GNF1 sample. ϕ is the heating rate (in K/min); T_m means the peak temperature (in K) of corresponding component marked in Fig.3.

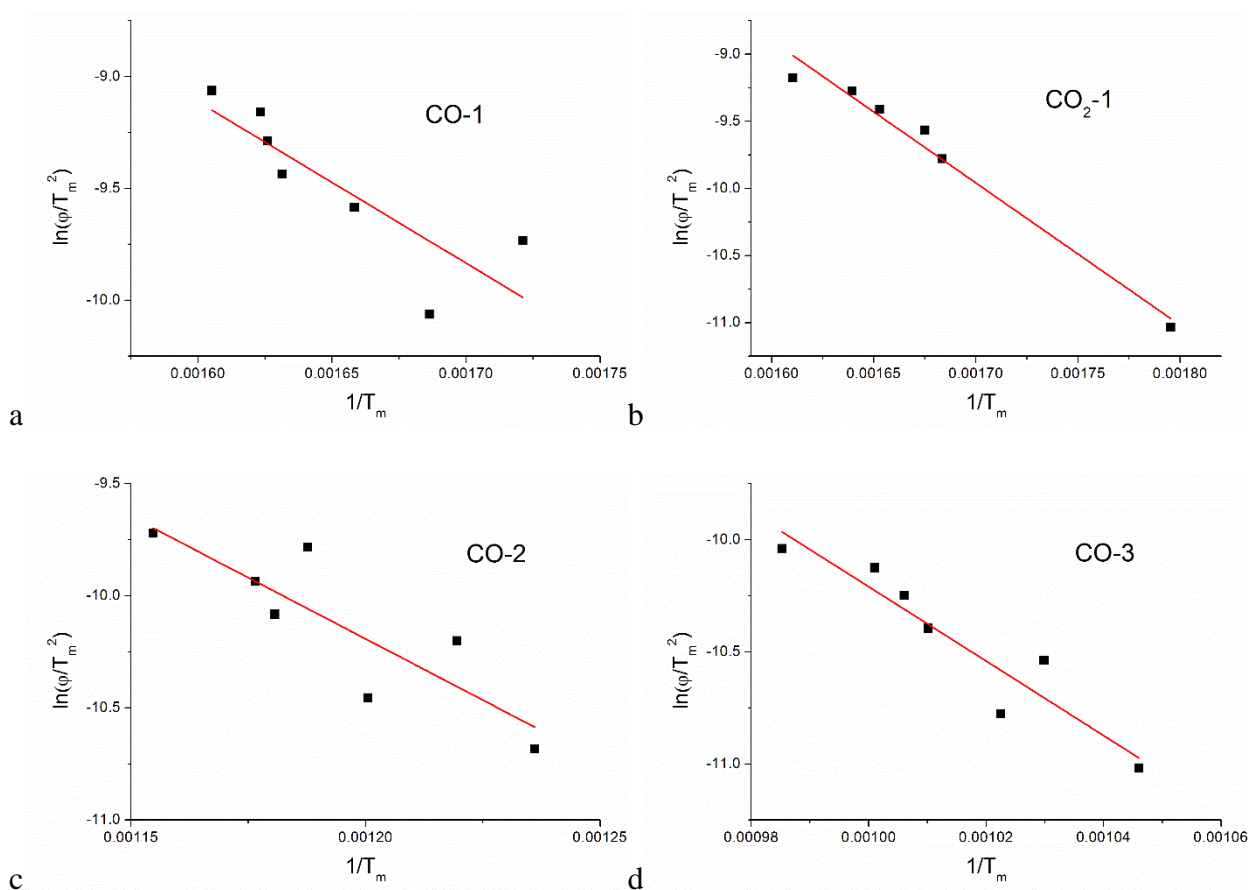
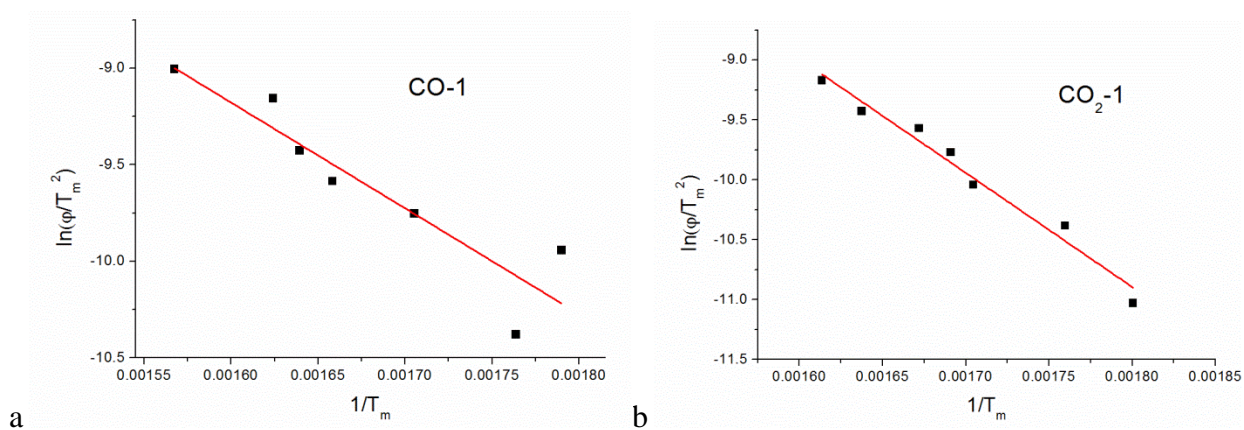


Fig.S2. Kissinger's plots for the decomposition processes marked in Fig.3 for the GNF2 sample. ϕ is the heating rate (in K/min); T_m means the peak temperature (in K) of corresponding component marked in Fig.3.



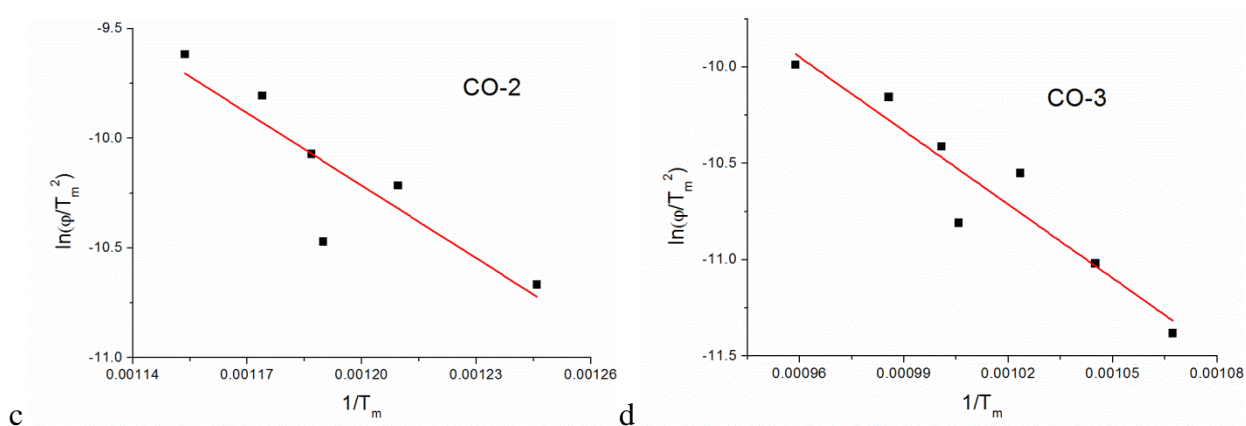


Fig.S3. Kissinger's plots for the decomposition processes marked in Fig.3 for the GNF3 sample. ϕ is the heating rate (in K/min); T_m means the peak temperature (in K) of corresponding component marked in Fig.3.

XPS data

Table S1. Binding energies and concentrations of the components in O1s and C1s XPS spectra of the oxidized GNFs and CNTs

Spectrum	Binding energy	Bond type	Concentration (at. %)			
			CNTs	GNF1	GNF2	GNF3
O1s	531.6–531.7	<u>O</u> =C	4.2	3.2	7.6	9.5
	533.2–533.7	<u>O</u> –C	4.4	4.1	7.5	8.1
C1s	284.3–284.4	C–C (sp^2)	78.3	82.9	61.5	56.1
	285.0–285.1	C–C (sp^3)	7.0	4.3	12.7	15.2
	286.4–286.4	<u>C</u> –O	2.1	2.0	2.9	2.5
	287.5	<u>C</u> =O	0.7	1.0	1.6	1.7
	288.8	O= <u>C</u> –O	3.1	2.0	5.4	6.0