Electronic Supplementary Information (ESI)

Feasibility of As, Sb, Se and Te Determination in Coal by Solid Sampling Electrothermal Vaporization Inductively Coupled Plasma Mass Spectrometry

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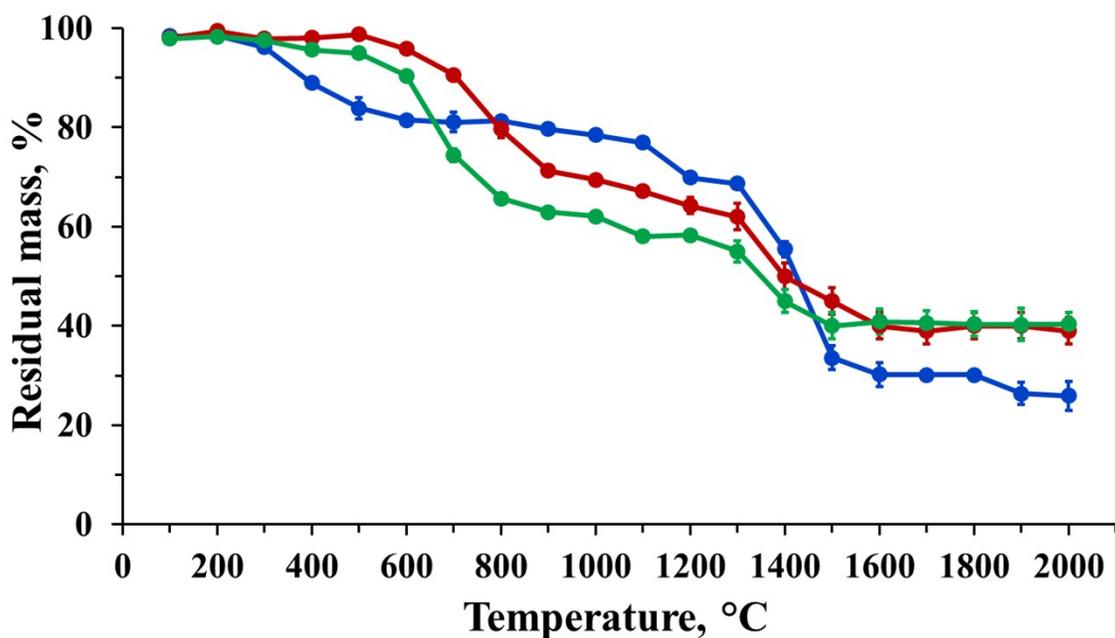
Fig. S1. Effect of pyrolysis temperature on the coal matrix decomposition, (—) coal "A", (—) coal "B", (—) coal "C". Error bars represent the standard deviation (n=3). Residual mass was calculated by weighing the platform using a microbalance (model M2P, +/- 0.001 mg, Sartorius, Germany) before and after the application of the pyrolysis step. The difference between the initial and final mass was calculated considering the initial mass as 100%.
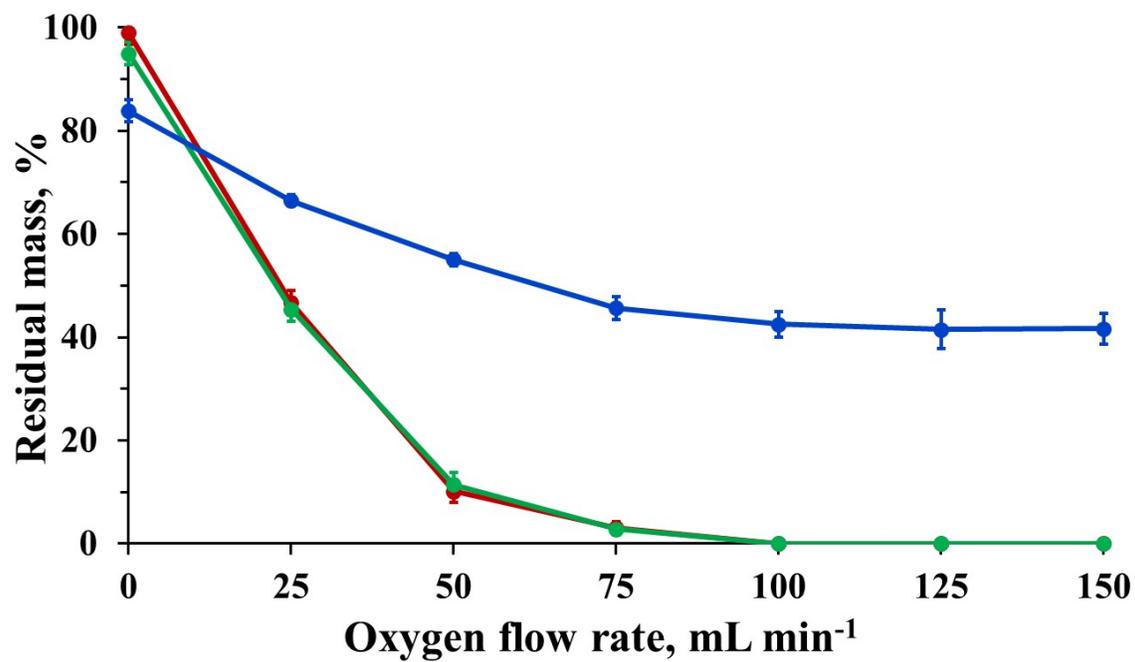
Fig. S2. Effect of oxygen flow rate on coal matrix decomposition, (—) coal "A", (—) coal "B", (—) coal "C". Heating program: 60 s at 500 °C (45 s of ramp). Error bars represent the standard deviation (n=3).
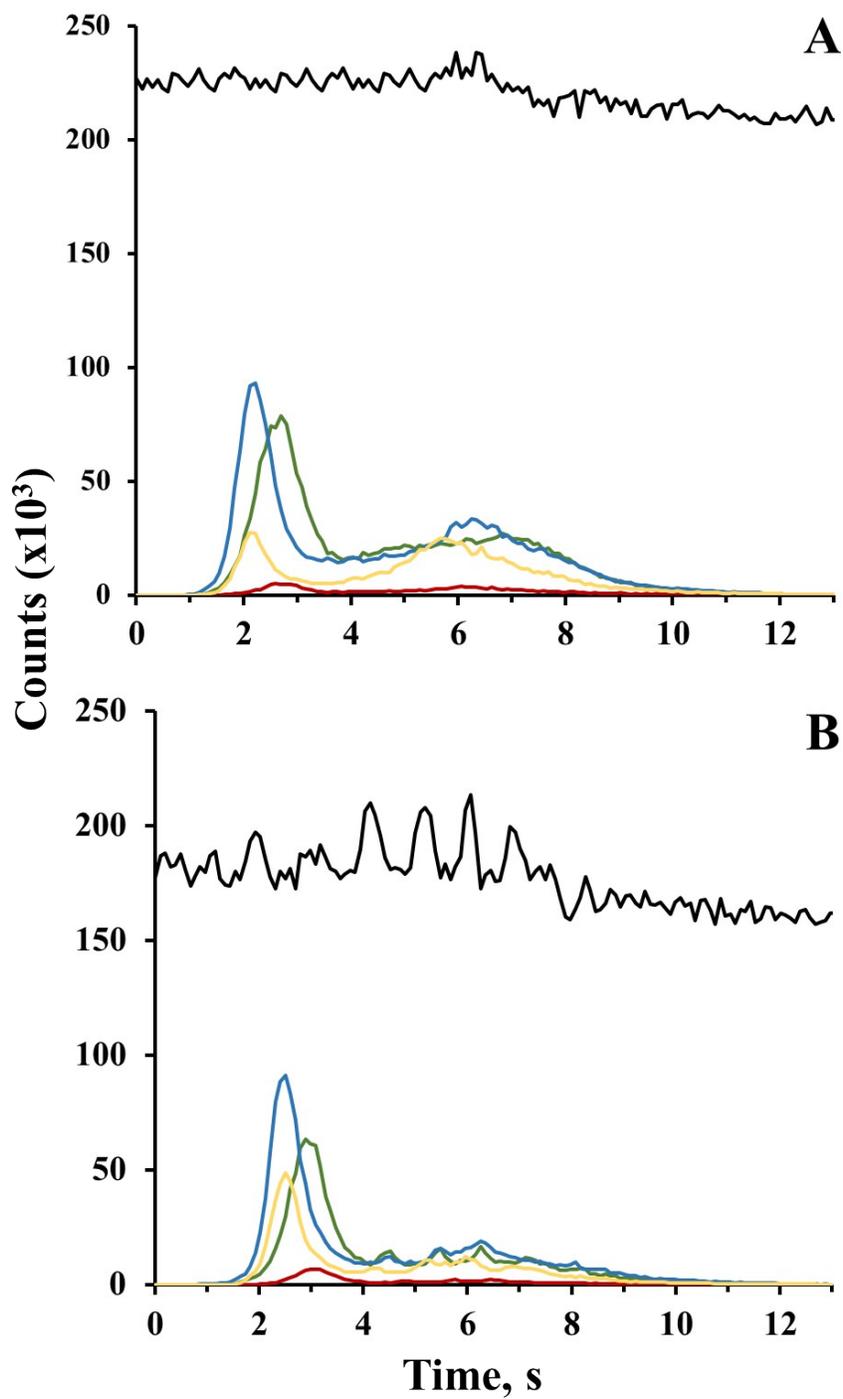
Fig. S3. Effect of carrier gas flow rate on sinal profile of (—) As, (—) Sb, (—) Se, (—) Te and (—) Ar$_2$ from 1 ng of reference solution, (A) carrier gas flow rate was 0.35 L min^{-1} and (B) carrier gas flow rate was 0.45 L min^{-1}. Pyrolysis at 800 °C and vaporization at 2300 °C. Iridium (4 μg) was used as chemical modifier. Bypass gas flow rate was 0.35 L min^{-1}.