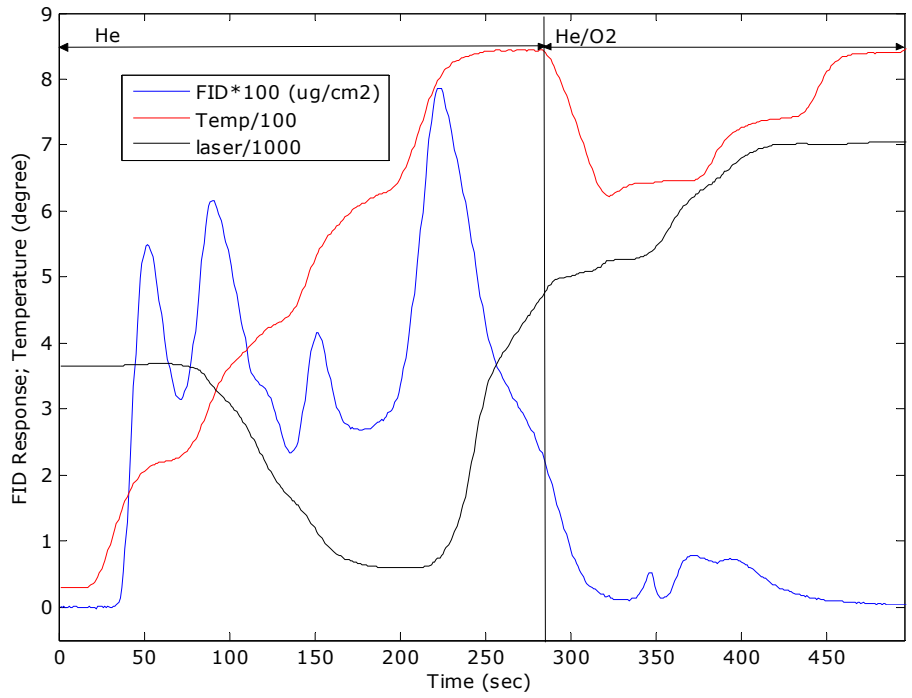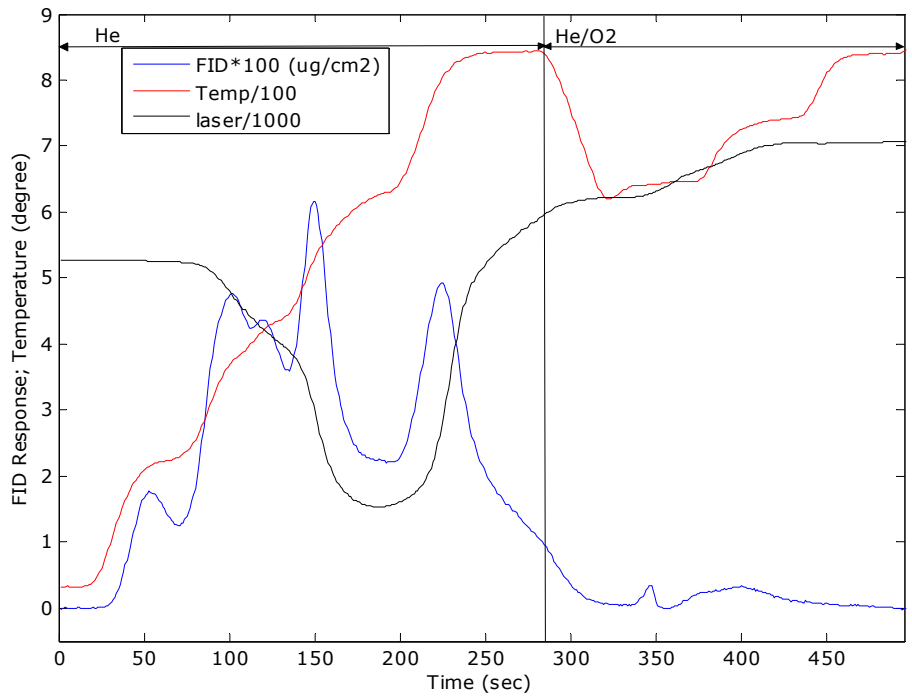1   Figure S1: NIOSH-5040 thermogram from PM2.5 collected in (a) K-Puszta, (b) Birkenes and (c)
2   Montseny.
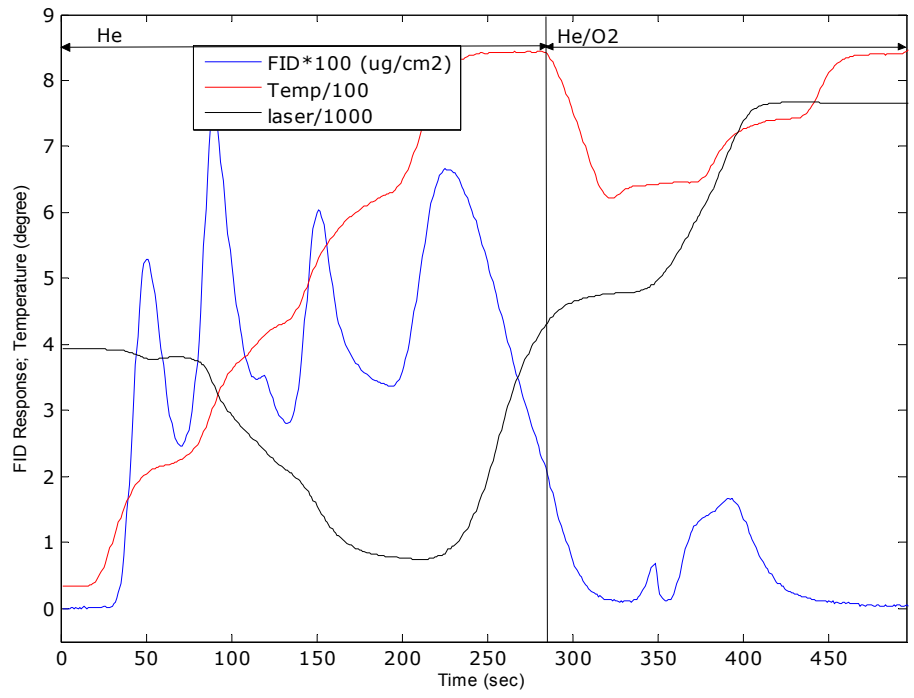
3   Figure S1a

4
5   Figure S1b

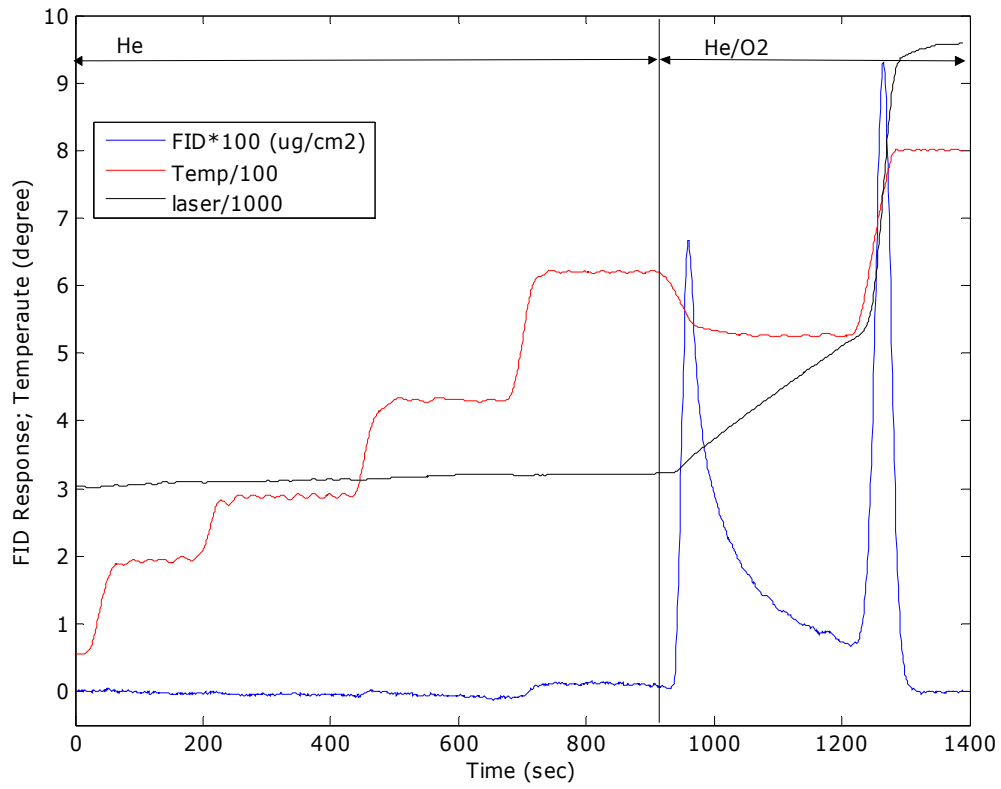

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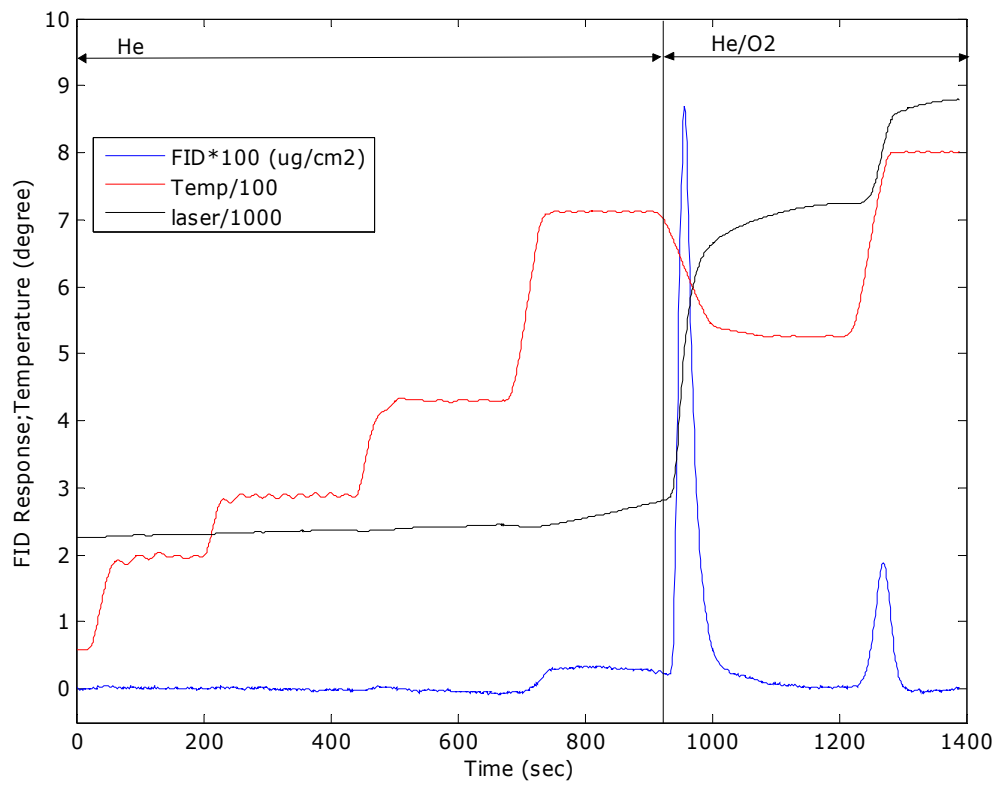17
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19   Figure S1c

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21

22   Figure S2 Thermograms from the analysis of light-absorbing-carbon-only samples using a

23   thermal protocol with a maximum temperature in He of 650 °C (a), He-750 (b) and He-850 (c)

24   protocols. The LAC-only samples were generated, as a mixture of pyrolysed organic carbon and

25   native EC, by thermal treatment of PM2.5 ambient aerosol samples according to the method
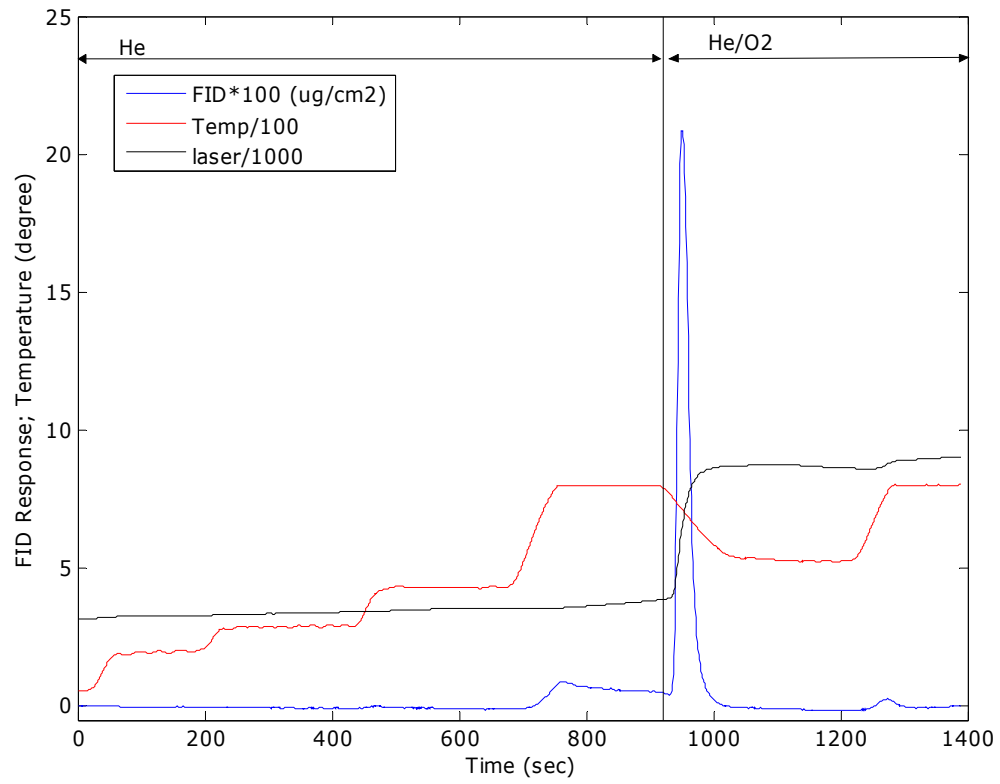
26   proposed by Yu and Li (*19*).

27   Figure S2a

28

29   Figure S2b

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31   Figure S2c

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Figure S3.1: PM2.5 sample collected on 220308 analysed by EUSAAR_1 (a) and EUSAAR_2 protocol (b).
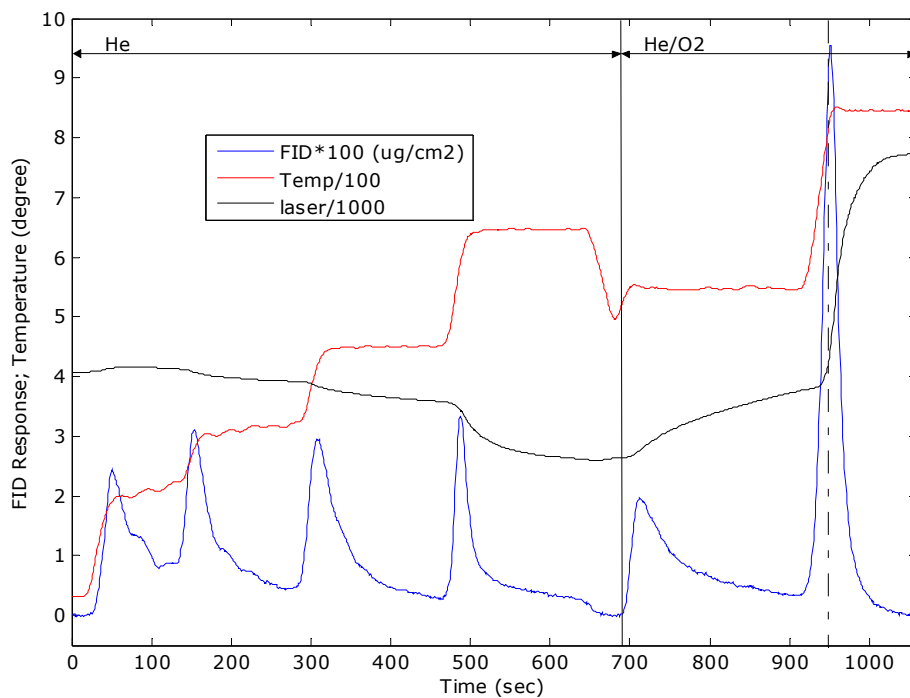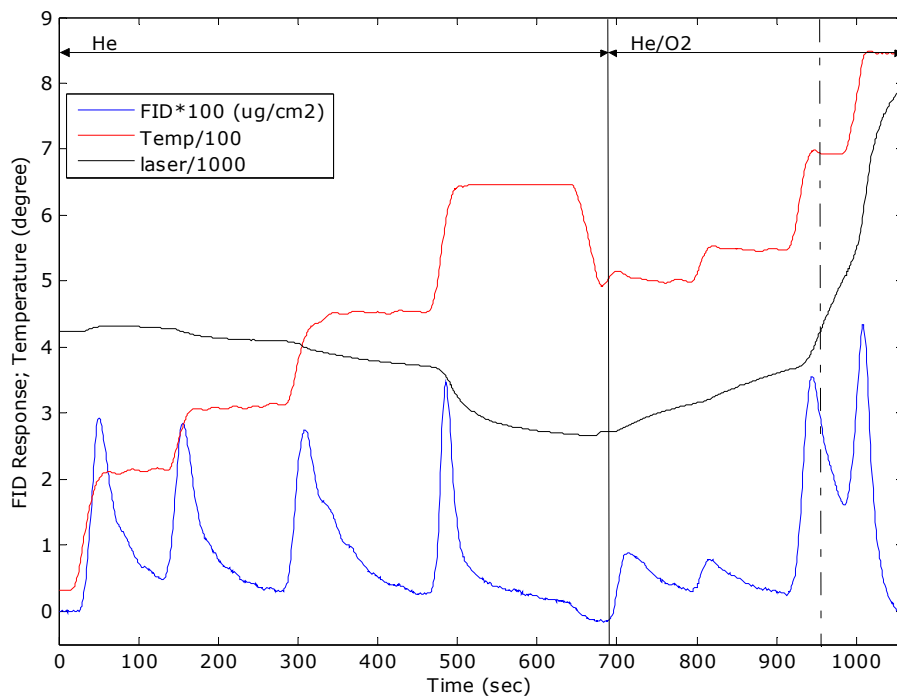
Figure S3.1a

Figure S3.1b

Figure S3.2: PM2.5 sample collected on 011008 analysed by EUSAAR_1 (a) and EUSAAR_2 protocol (b).
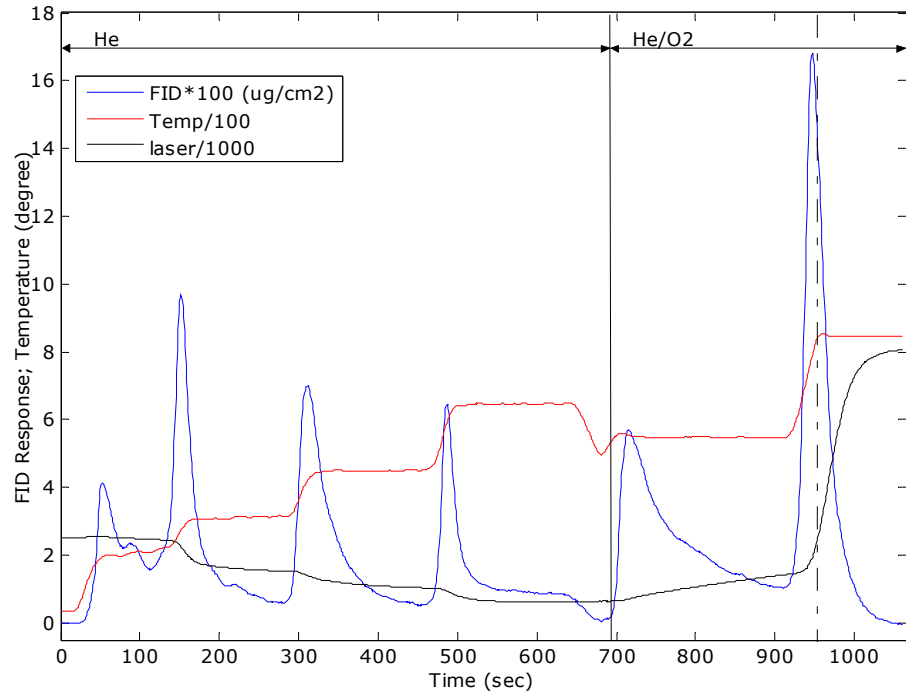
Figure S3.2a

Figure S3.2b