Supplement 3 – Comparison of gross signals *vs*. net signals for the interval 1 – 20 s

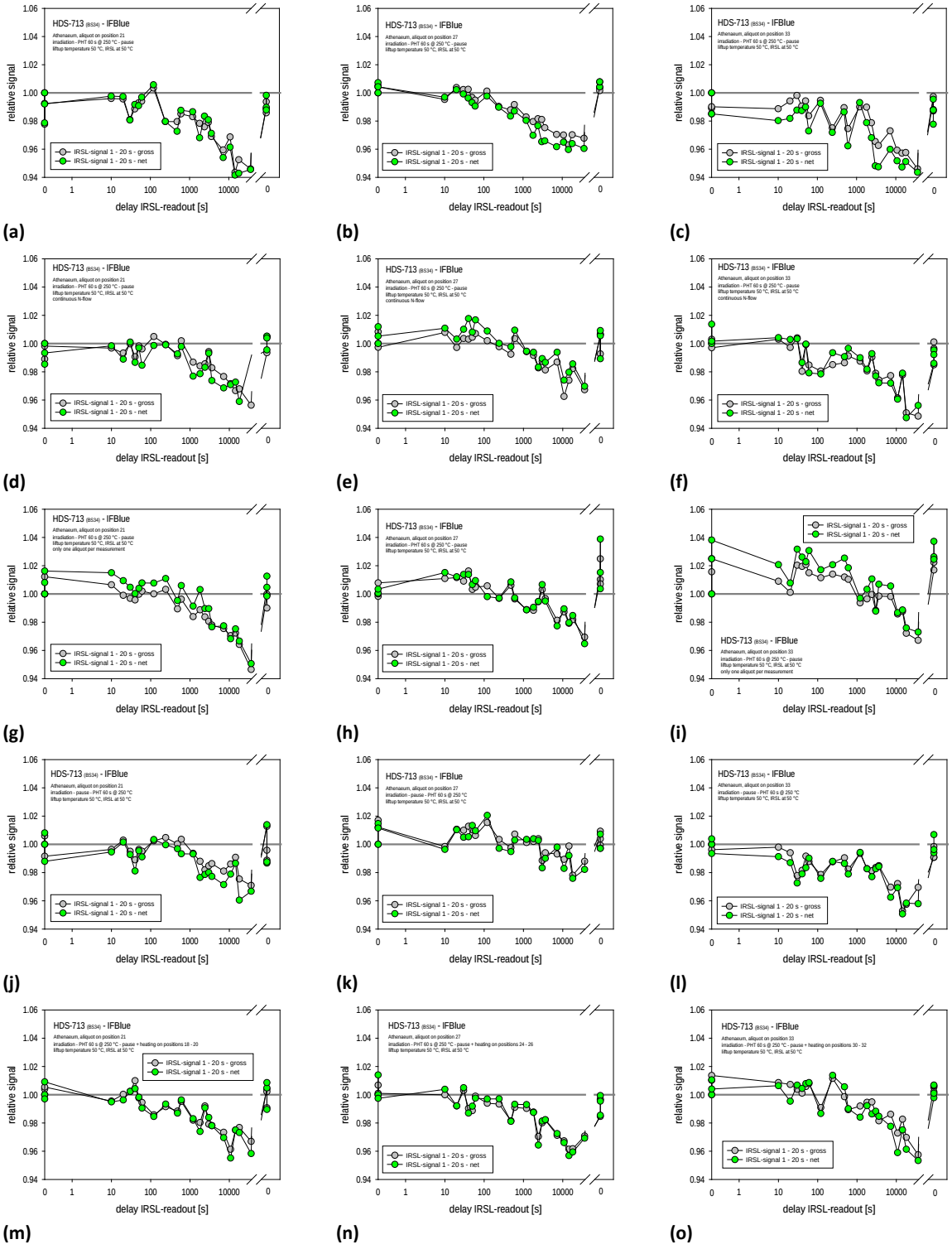

Fig. ii Results for HDS-713 on DA20 (Athenaeum) with preheat 60 s at 250 °C, IRSL at 50 °C, liftup temperature 50 °C, laboratory dose 10.3 Gy (100 s beta irradiation time) and normalisation dose 5.2 Gy (50 s beta irradiation time). Gross signals (grey) and net signals (green) for the interval 1 – 20 s.

- **(a – c)** only 120 s nitrogen flow at the beginning (T_{fad}-13)
- **(d – f)** continuous nitrogen flow (T_{fad}-14)
- **(g – i)** each aliquot measured separately in three individual runs (T_{fad}-15)
- **(j – l)** pause before preheat (Rhodius et al. 2015) (T_{fad}-16)
- **(m – o)** extra heating on neighbouring positions (here: 3 x 180 s at 250 °C) (FT-27)

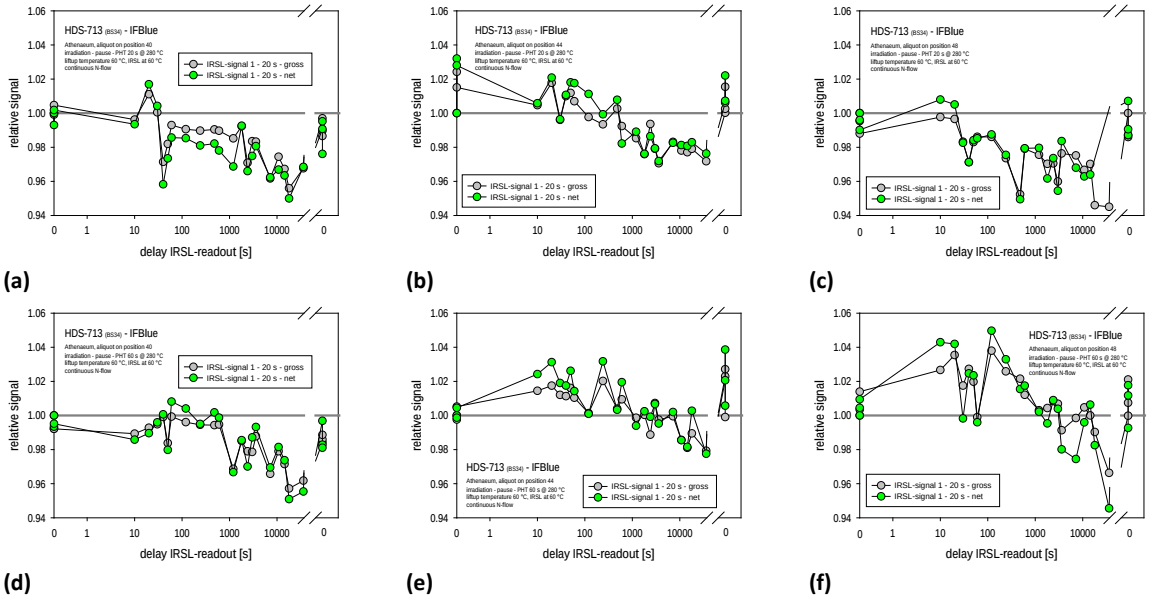

Fig. iii Results for HDS-713 on DA20 (Athenaeum) with IRSL readout at 60 °C and liftup temperature of 60 °C. Laboratory dose 10.3 Gy (100 s beta irradiation time) and normalisation dose 5.2 Gy (50 s beta irradiation time). Gross signals (grey) and net signals (green) for the interval 1 – 20 s.

- **(a – c)** Preheat 20 s at 280 °C (T_{fad}-17) *versus* **(d – f)** preheat 60 s at 280 °C (T_{fad}-18).