

Figure S1. Illustrative dose-response and luminescence decay curve (inset) for an aliquot of quartz grains extracted from sample GLL-150803. The filled circles show the sensitivity-corrected responses to several regenerative doses; the dose-response (solid line) was represented by a single saturating exponential. The open circle represents a repeat measurement of the response to the regenerative dose that was administered first (recycling point). The equivalent dose (D_e) is obtained by interpolating the sensitivity-corrected natural OSL signal (open square) on the dose-response curve.

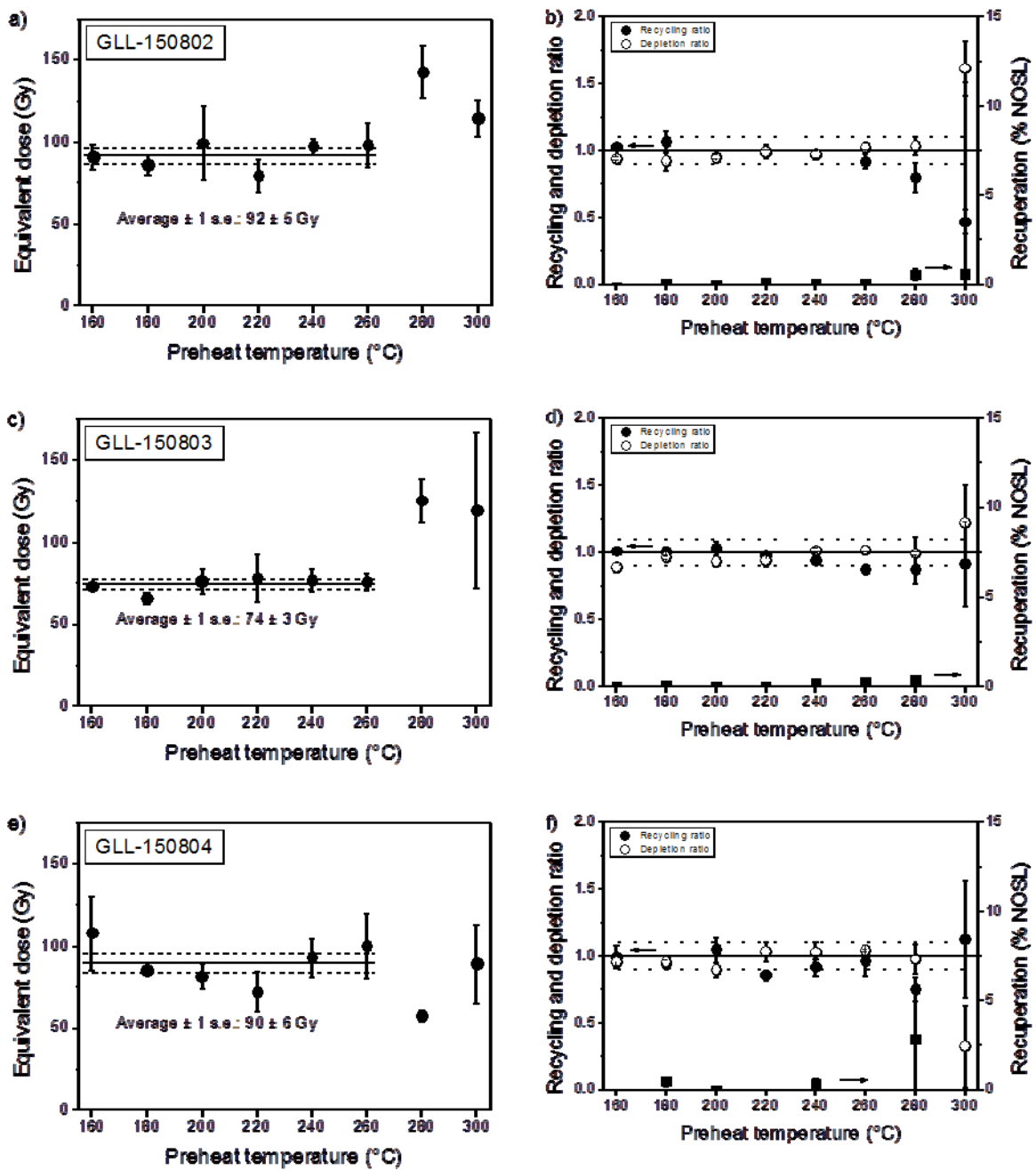


Figure S2. Dependence of equivalent dose on preheat temperature (a, c, e). Each data point represents the average of three measurements; error bars represent 1 standard error (s.e.). The solid and dashed lines represent the unweighted average \pm 1 standard error over the 160-260°C temperature region. Figs b, d and f show the corresponding recycling (solid circles) and OSL IR depletion (open circles) ratios (left hand axis) and values for recuperation (solid squares; right hand axis) expressed as a % of the corrected natural OSL signal. The solid and dotted lines (eye guides) represent ratios equal to 1.0 ± 0.1 .

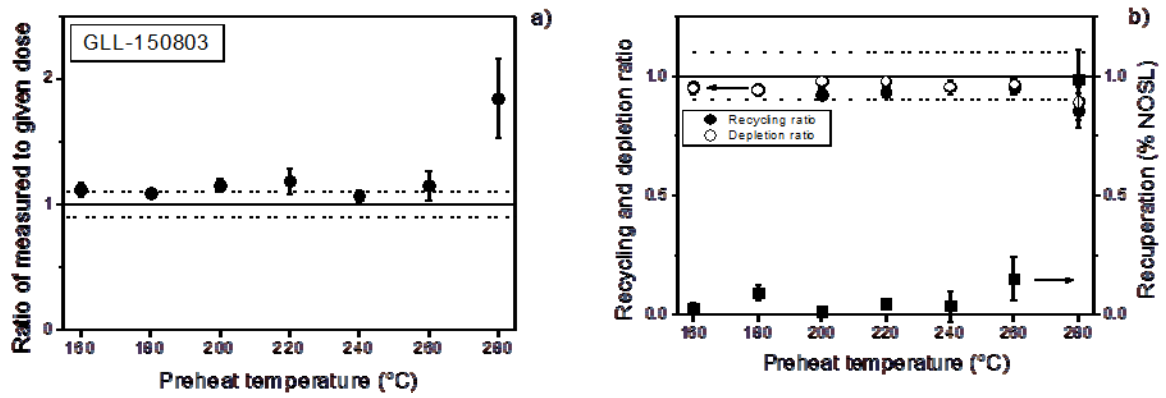


Figure S3. a) Ratios of measured to given dose (dose recovery data) as a function of preheat temperature for sample GLL-150803. Each data point represents the average \pm 1 s.e. of three measurements. b) Corresponding recycling and OSL IR depletion ratios (left hand axis) and recuperation values (right hand axis). The solid and dotted lines (eye guides) represent ratios equal to 1.0 ± 0.1 .