

Online Resource ESM6

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Episodic diamond growth beneath the Kaapvaal Craton at Jwaneng Mine, Botswana

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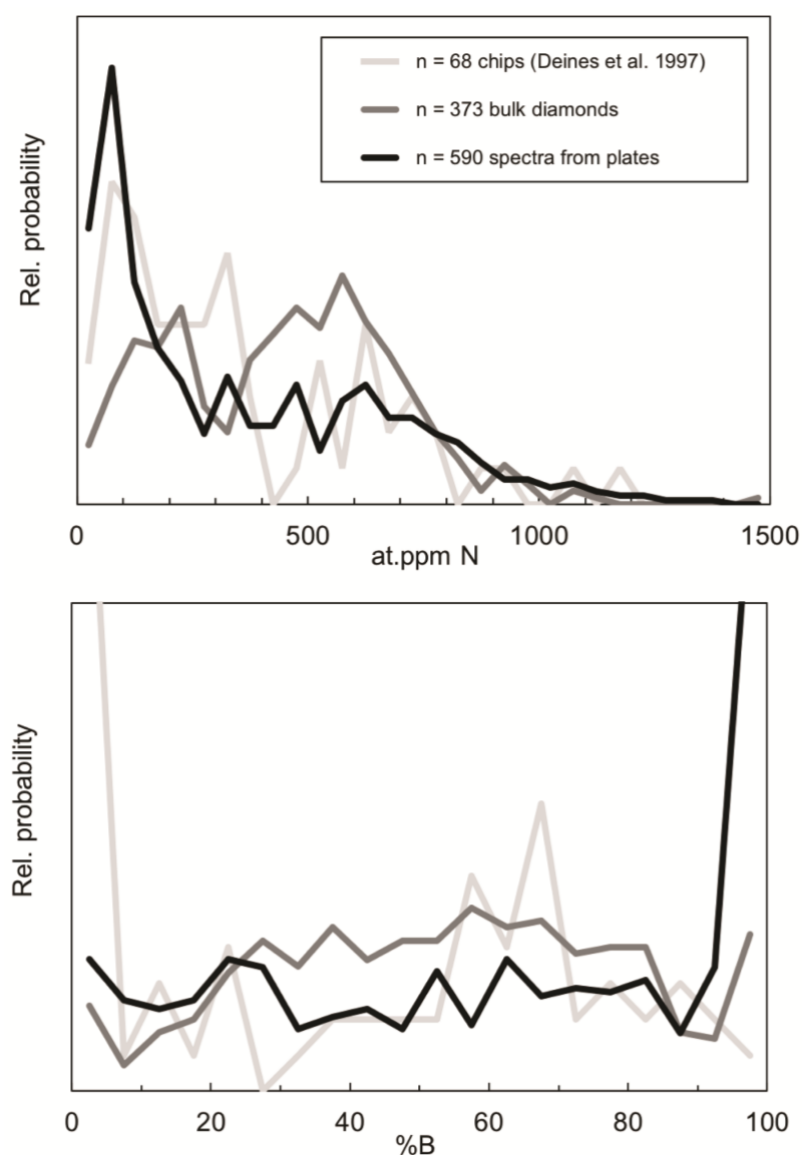


Figure ESM6 Frequency-normalised relative probability distribution plot

Comparison of 570 individual FTIR spectra obtained on 67 diamond plates, 373 bulk spectra from this study and 68 FTIR analysis on cleaved diamond chips from Deines et al. (1997).

Nitrogen content is given in at.ppm, N aggregation state in %B. The distribution of the plate data shows a peak at low N contents with near constant probability from 200 to 800 at.ppm and decreasing probability towards N >800 at.ppm. The plate data have a broader distribution of N concentrations than the bulk diamond data, as expected, because of the averaging of heterogeneous analysed volumes in the latter. The nitrogen aggregation state for the plates has a single peak at ~95 %B. This is in contrast to the two subgroups (0 – 10 %B; 50 – 70 %B) described in Deines et al. (1997).