

Figure S.3. Example of automatic D_{par} analysis at 1000 \times magnification and 2 \times secondary optical magnification, using recipe in Nikon NIS-Elements Advanced Research. Possible errors are (a) false identifications, (b) missing identifications and (c) inseparable double identifications, which equals a false identification. In the histogram is shown that the false identifications (noise) do not pose a major problem due to the large numbers of measurements. D_{par} was calculated as the median value.

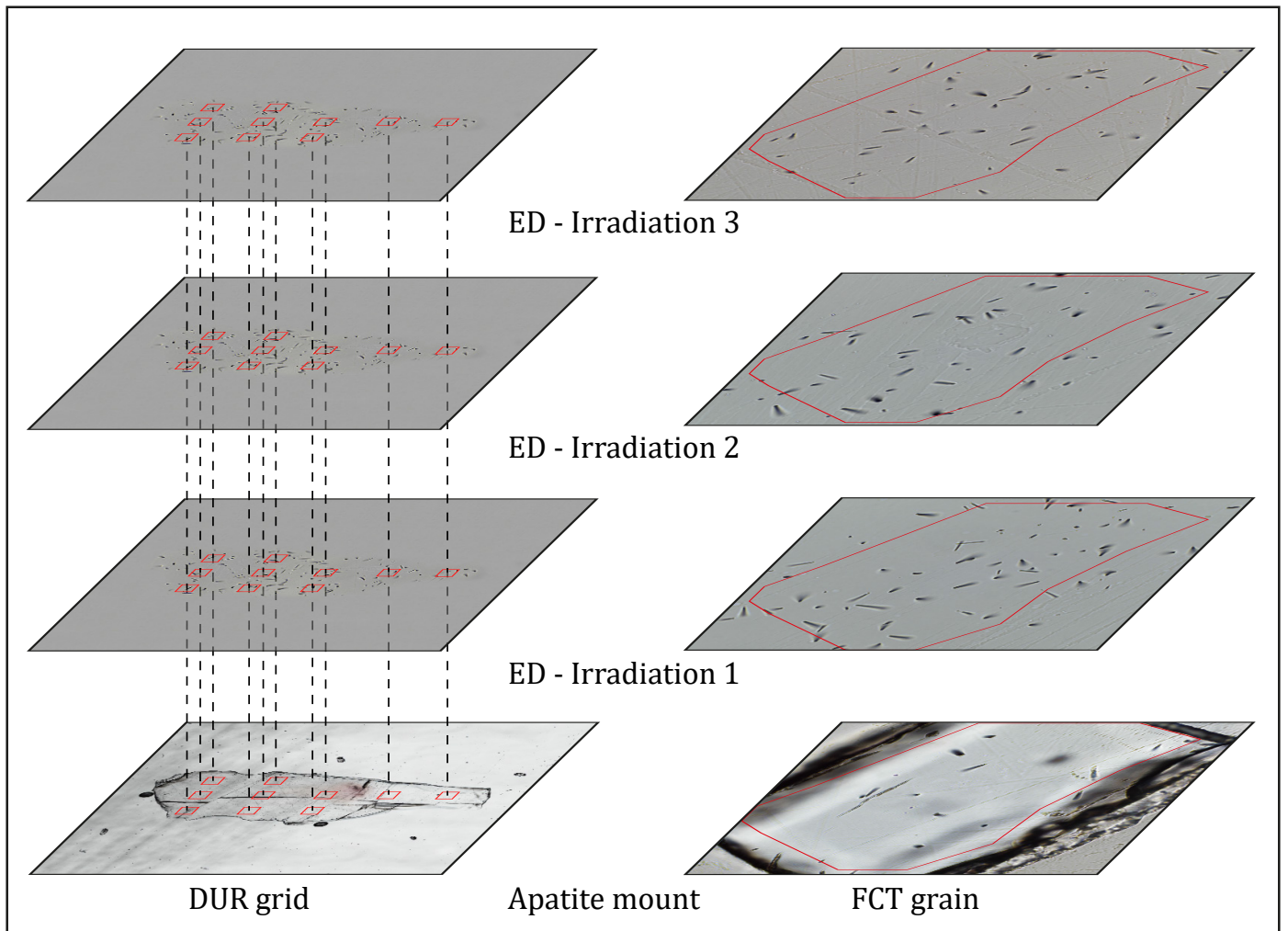


Figure S.4. Age standards (Durango (DUR) and Fish Canyon Tuff (FCT)) and their external detectors (ED) after multiple irradiations. Each ED layer corresponds to the same locations on the Apatite mount layer. As such, the same corresponding areas are scanned each time, omitting the need to scan the Apatite mount again after each irradiation.