



Fig. 4. Energy-energy correlation matrix for two subsequent decay events in R - $d1$ - $d2$ chains, when the R - $d1$ and $d1$ - $d2$ time differences are less than 130 ms and 18 ms, respectively. The inset provides the energy spectrum of the newly observed ^{108}I proton decay events, which are highlighted with a dashed circle in the main panel. Due to a high count rate in the DSSD and the long half-life, ^{108}Te α -decay events self-correlate randomly. The dashed lines mark the energies of selected, previously identified, charged-particle decay activities in this region.