Further investigations on 'non-fading' in K-Feldspar

We give a theoretical overview of non-fading infrared stimulated luminescence (IRSL) signals in feldspars, followed by intercomparison of potential methods on some sediment extracts. We observe that a more stringent thermal wash on its own is not effective in obtaining a more stable signal, suggesting that the higher the stimulation temperature in post IR-IRSL methods, the greater the ability to access distant electron hole pairs. We further find that the delayed off-time signal in time-resolved IRSL has immense potential for sampling non-fading signal and should be explored further; this signal also appears to be well reset in nature and avoids unwanted thermal transfer effects in comparison to the post IR-IRSL signal measured at 290 degrees C. (C) 2014 Elsevier Ltd and INQUA. All rights reserved.

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