

# Data Repository

## U-Pb systematics of shocked zircon from the Mien impact structure, Sweden: Implications for a new impact age and for metamict-induced zircon texture formation during impact event

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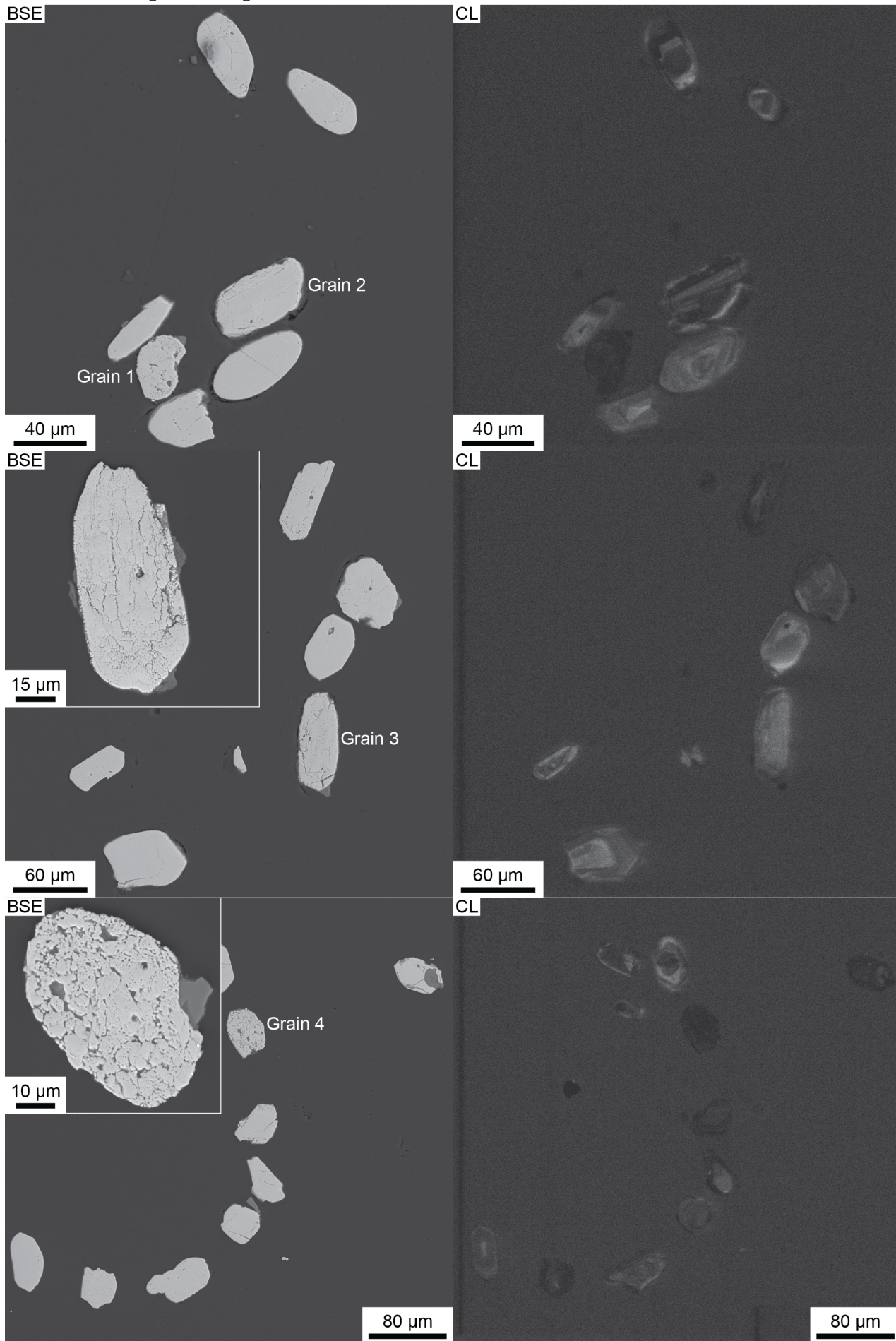
Item DR 5. Ion imaging analyses clast-rich impact melt

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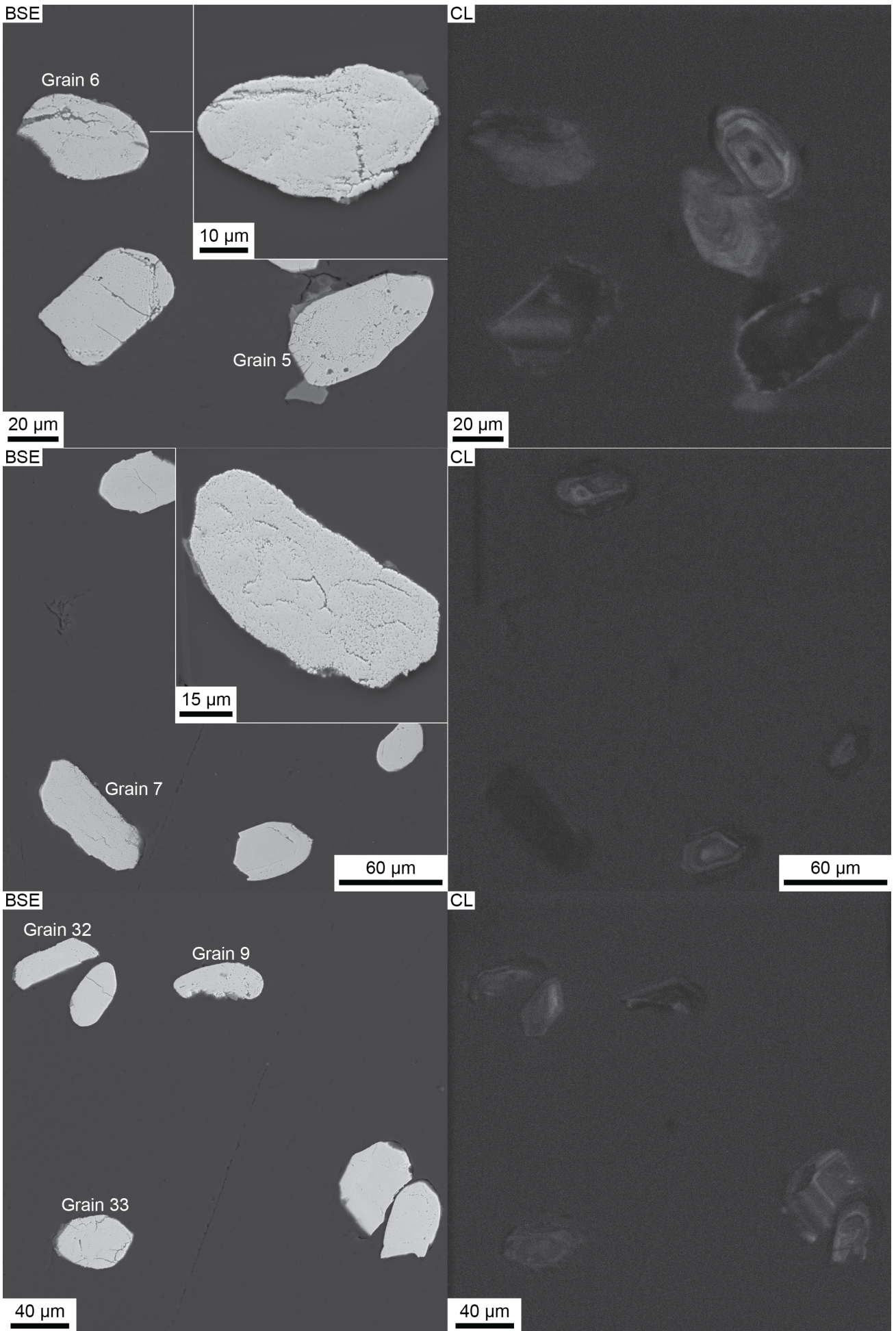
#### Item DR 1: SEM images

This item includes SEM images (BSE images = left side, CL images = right side) of all zircon grains analysed by SIMS U-Pb spot dating. Some BSE images include insets of grains that were additionally analysed by SIMS ion imaging (except grains 3 and 7 of the suevitic breccia). These grains show a bit different grain shape than the same grains in the larger BSE image due to a second polishing after the SIMS analyses to remove ablation pits of the spot analyses and the Au coating. The larger BSE images show the grain shape prior to the SIMS analyses. All SEM images were taken at 15 kV and a working distance between 9 and 10 mm.

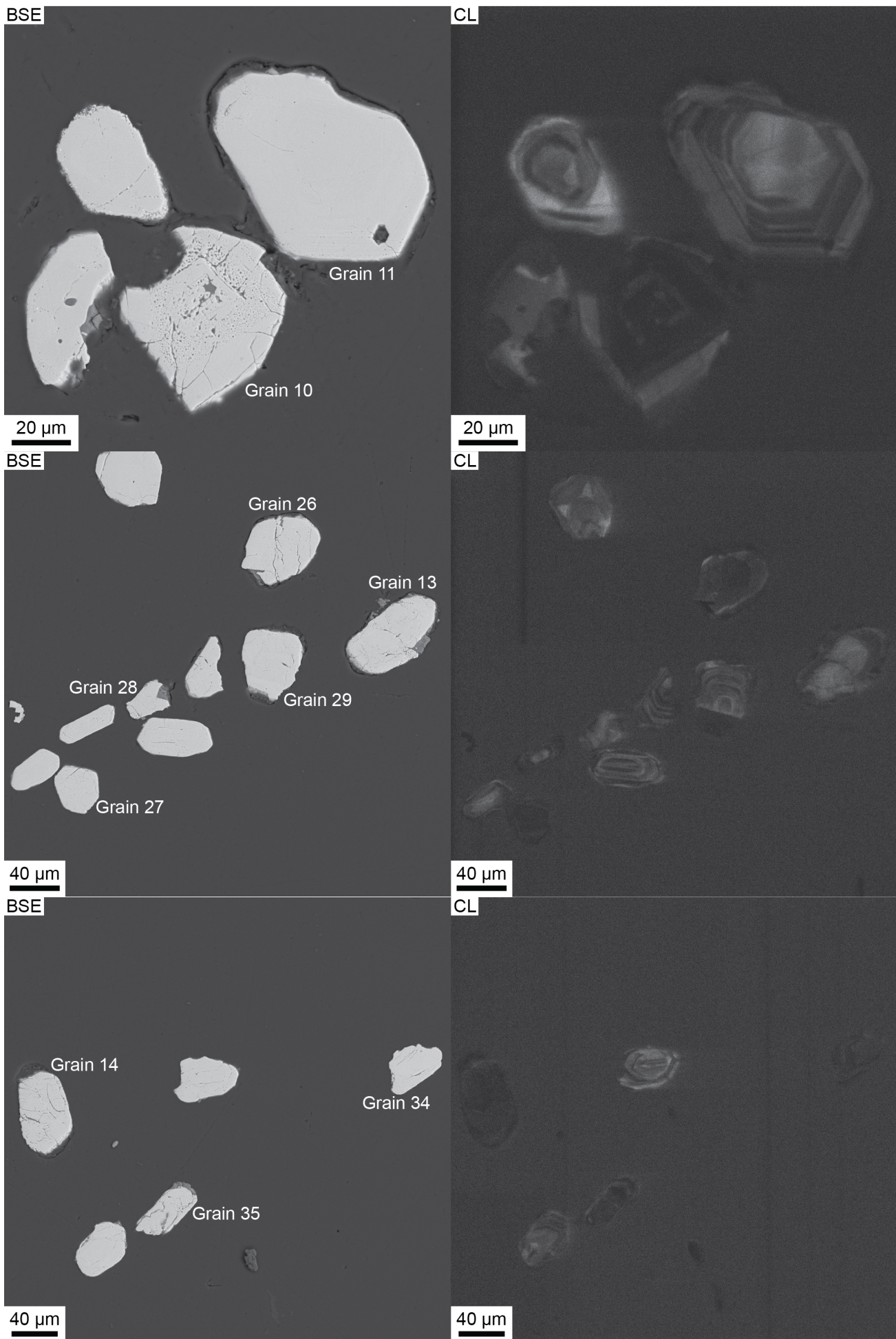
### DR 1.1 Clast-poor impact melt



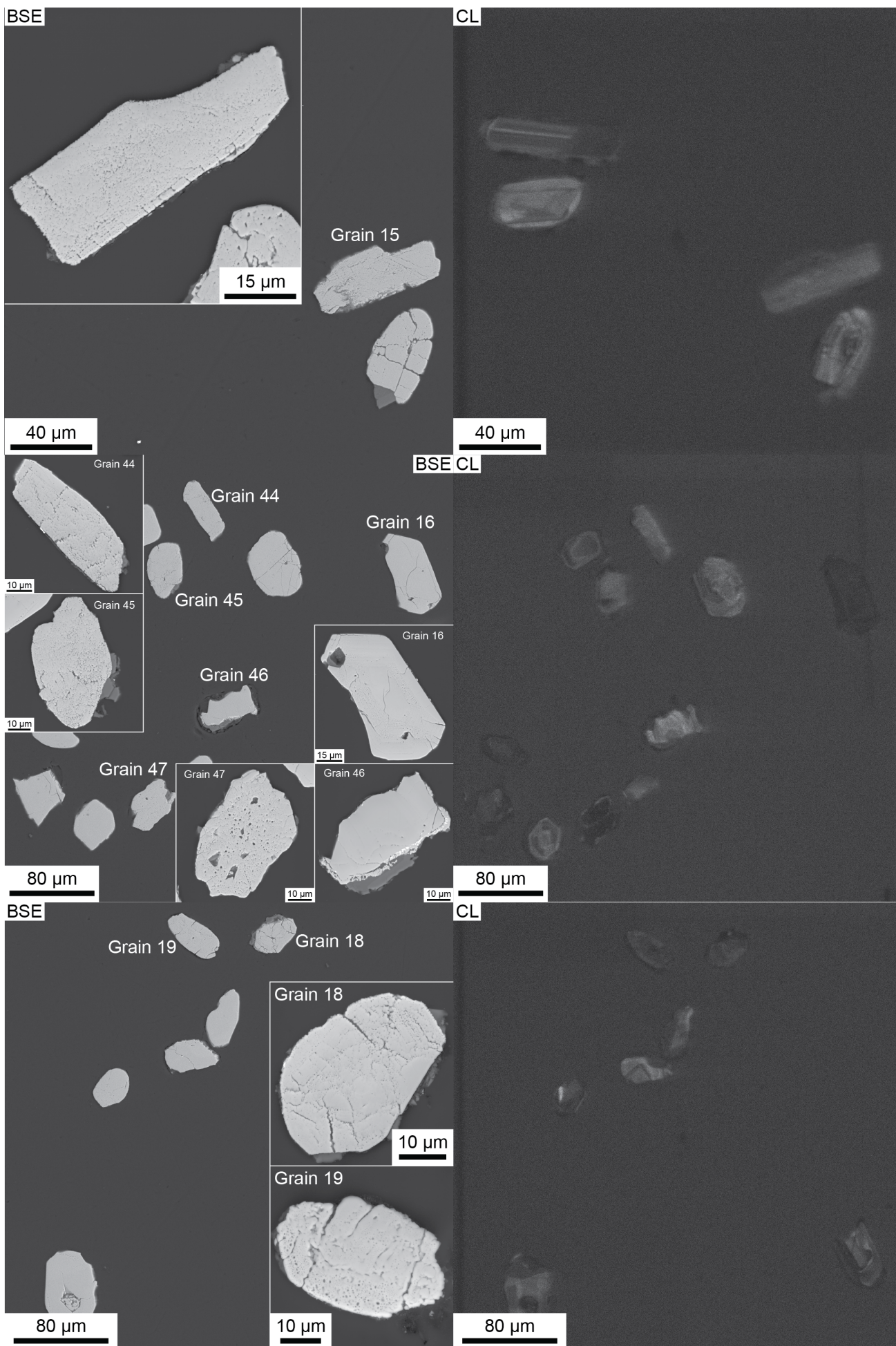




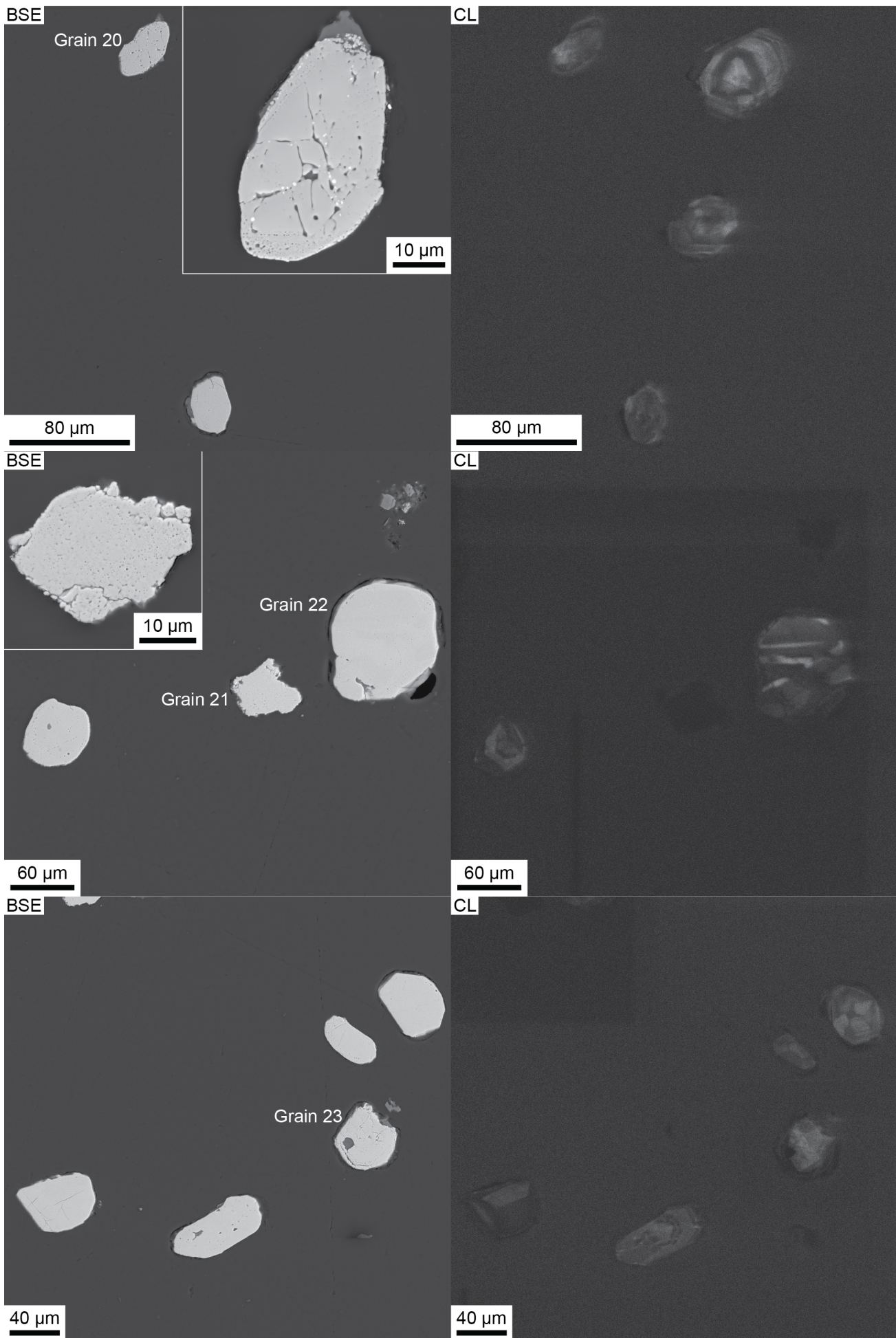




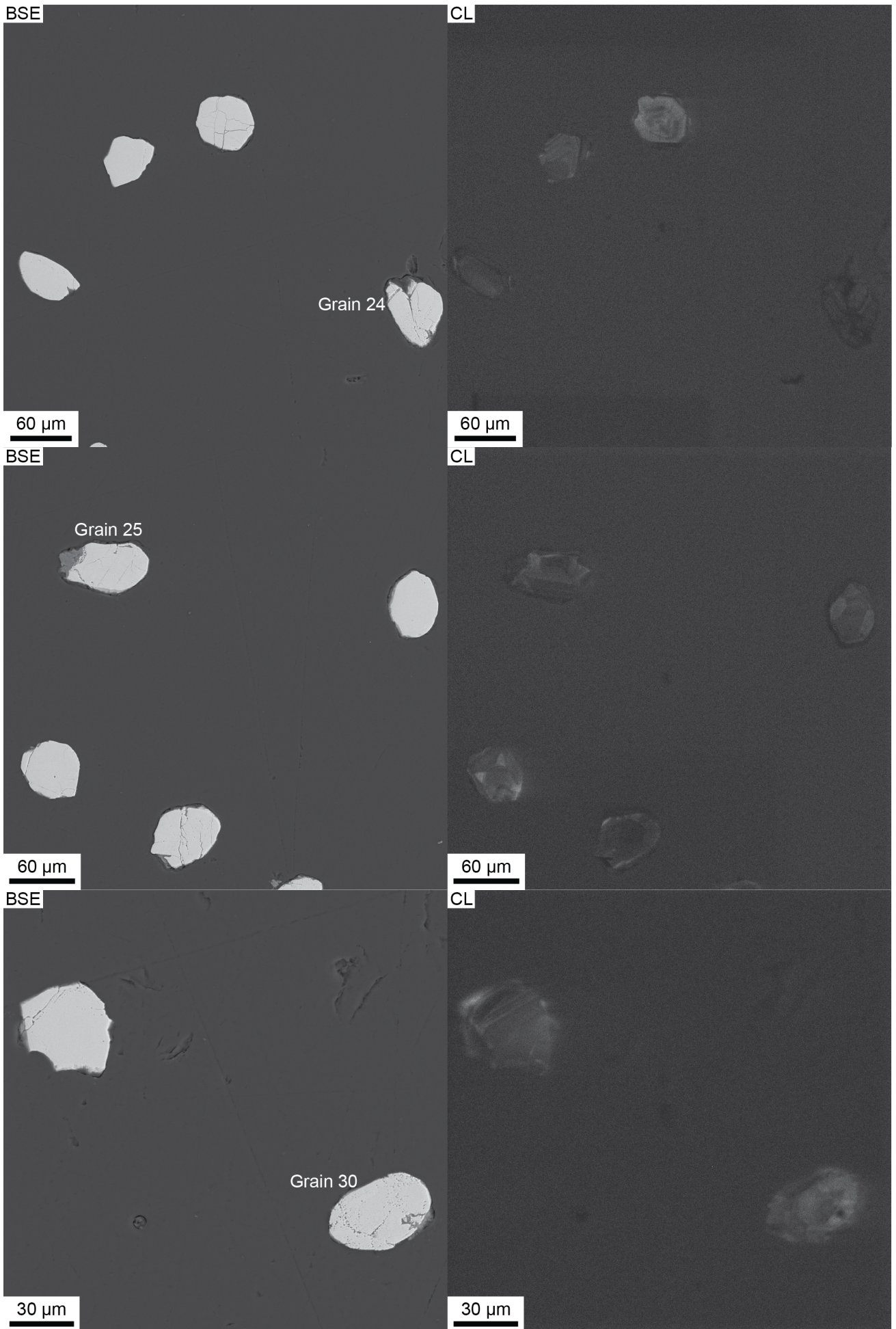




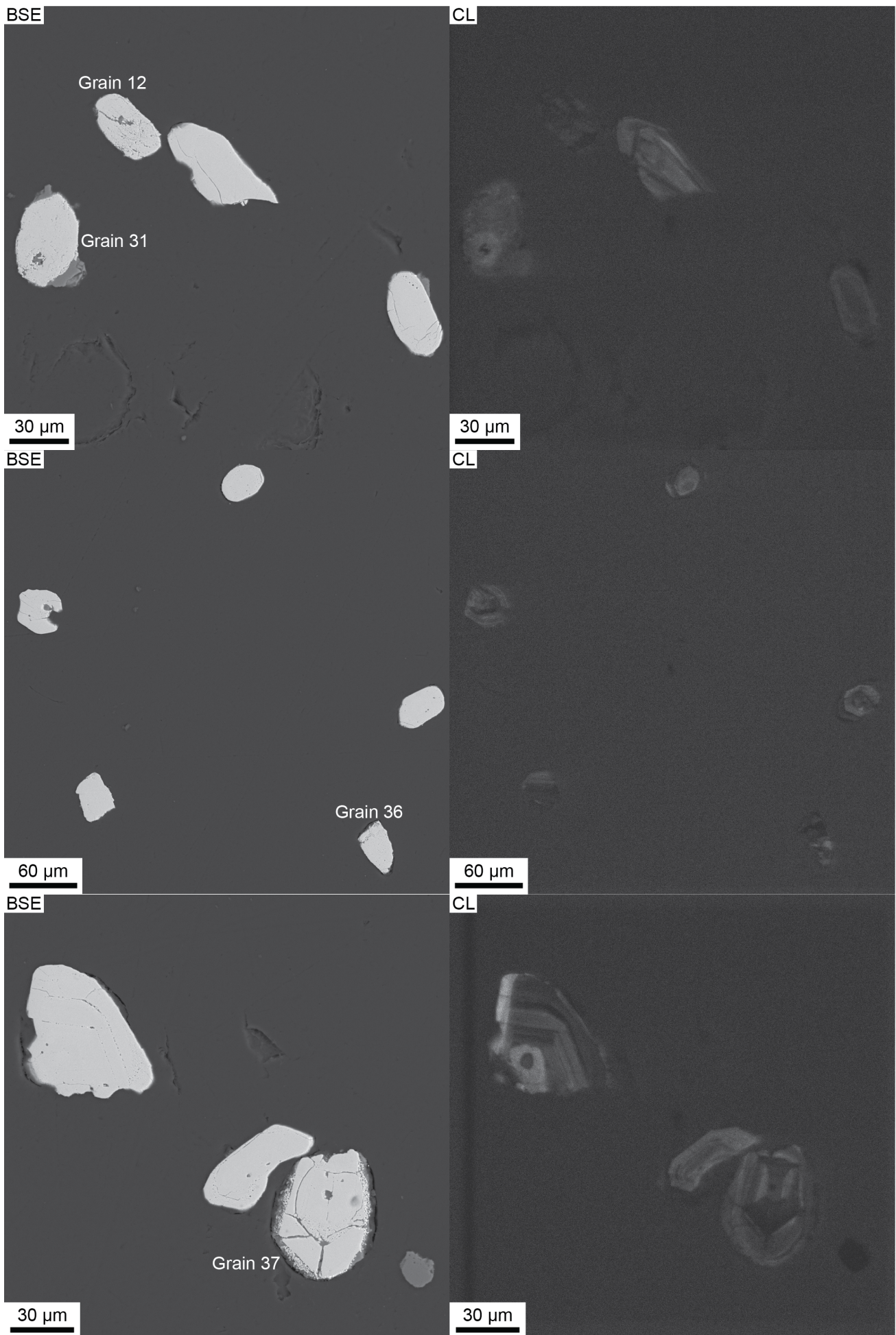




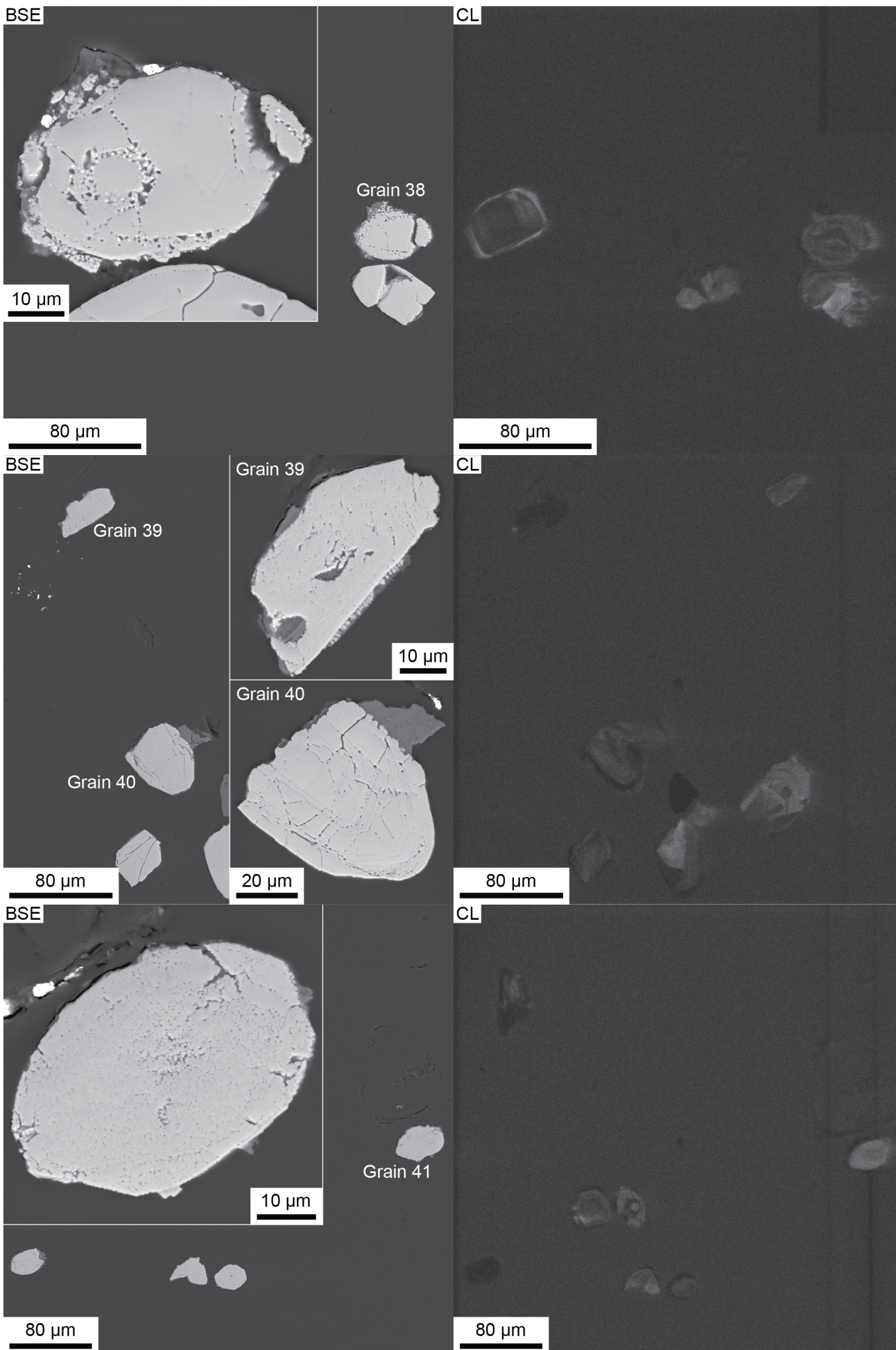




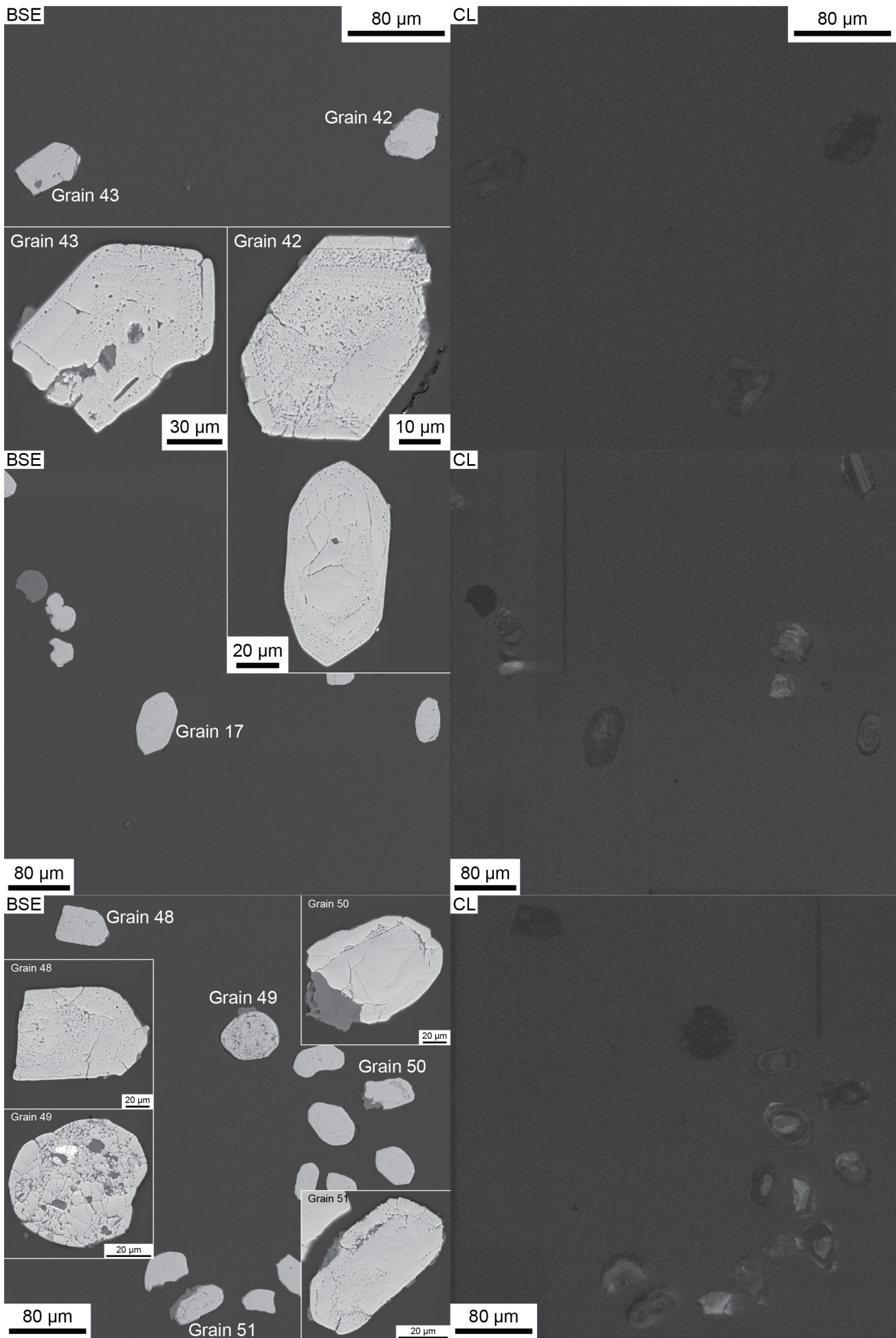






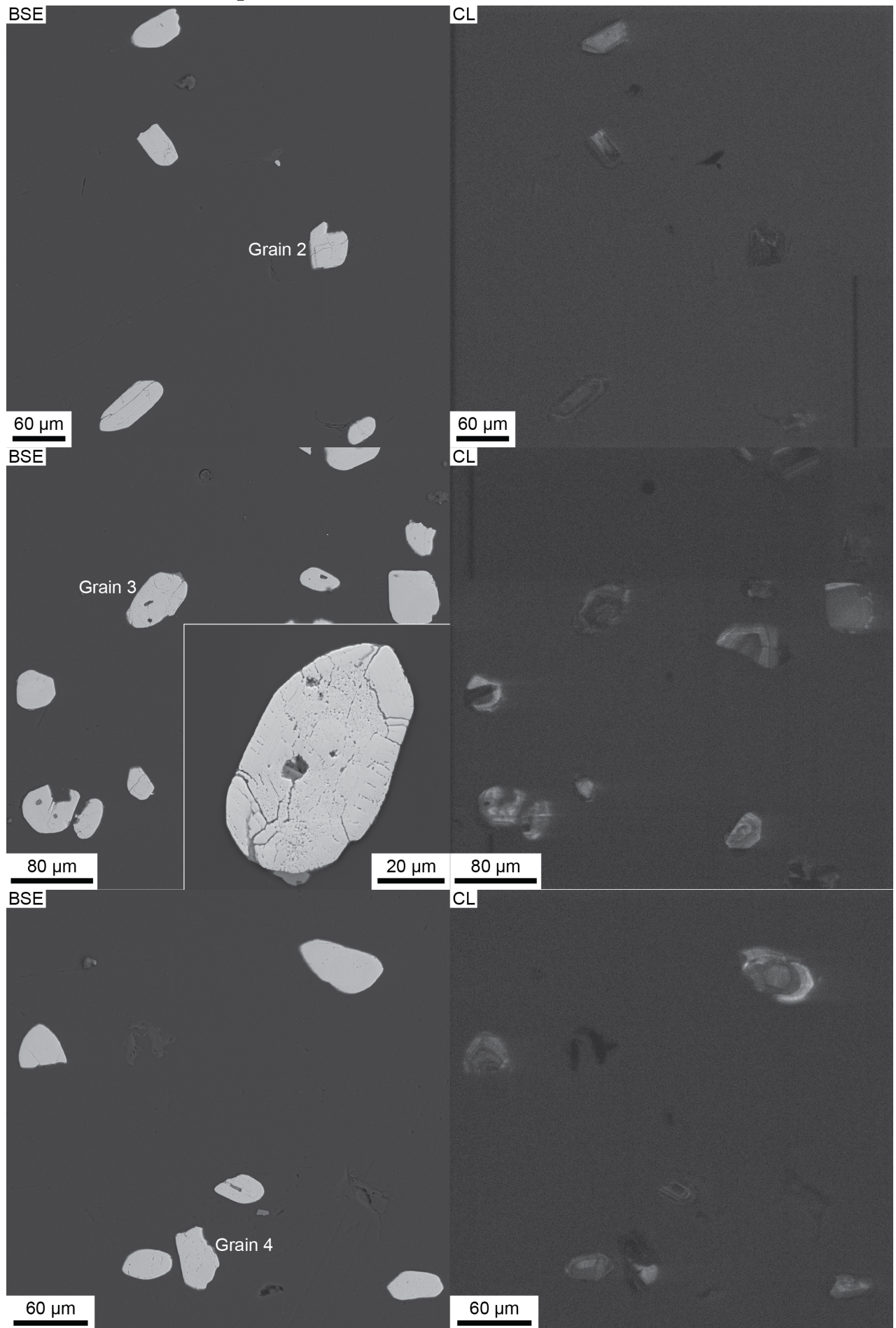




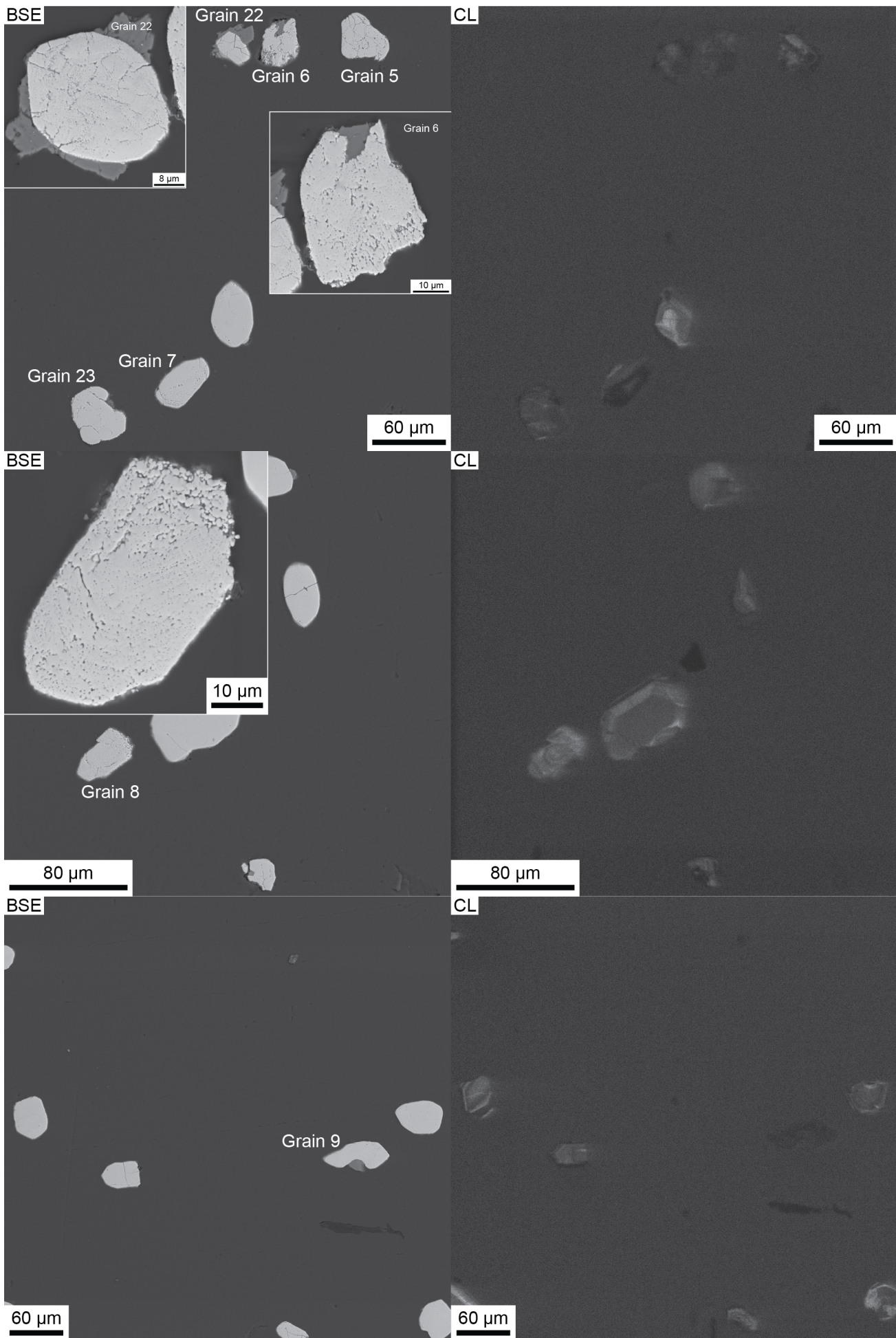




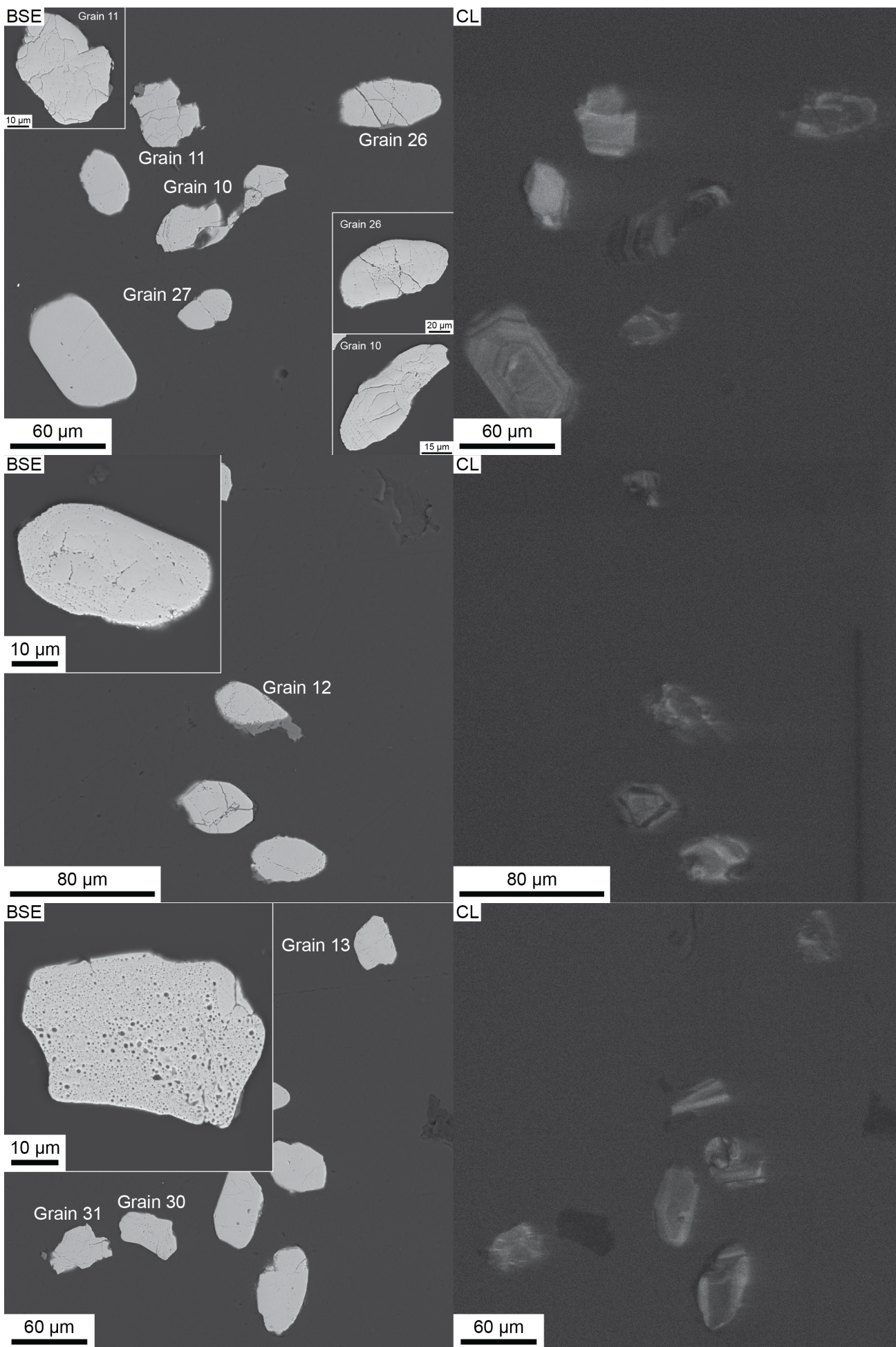
### DR 1.2 Clast-rich impact melt



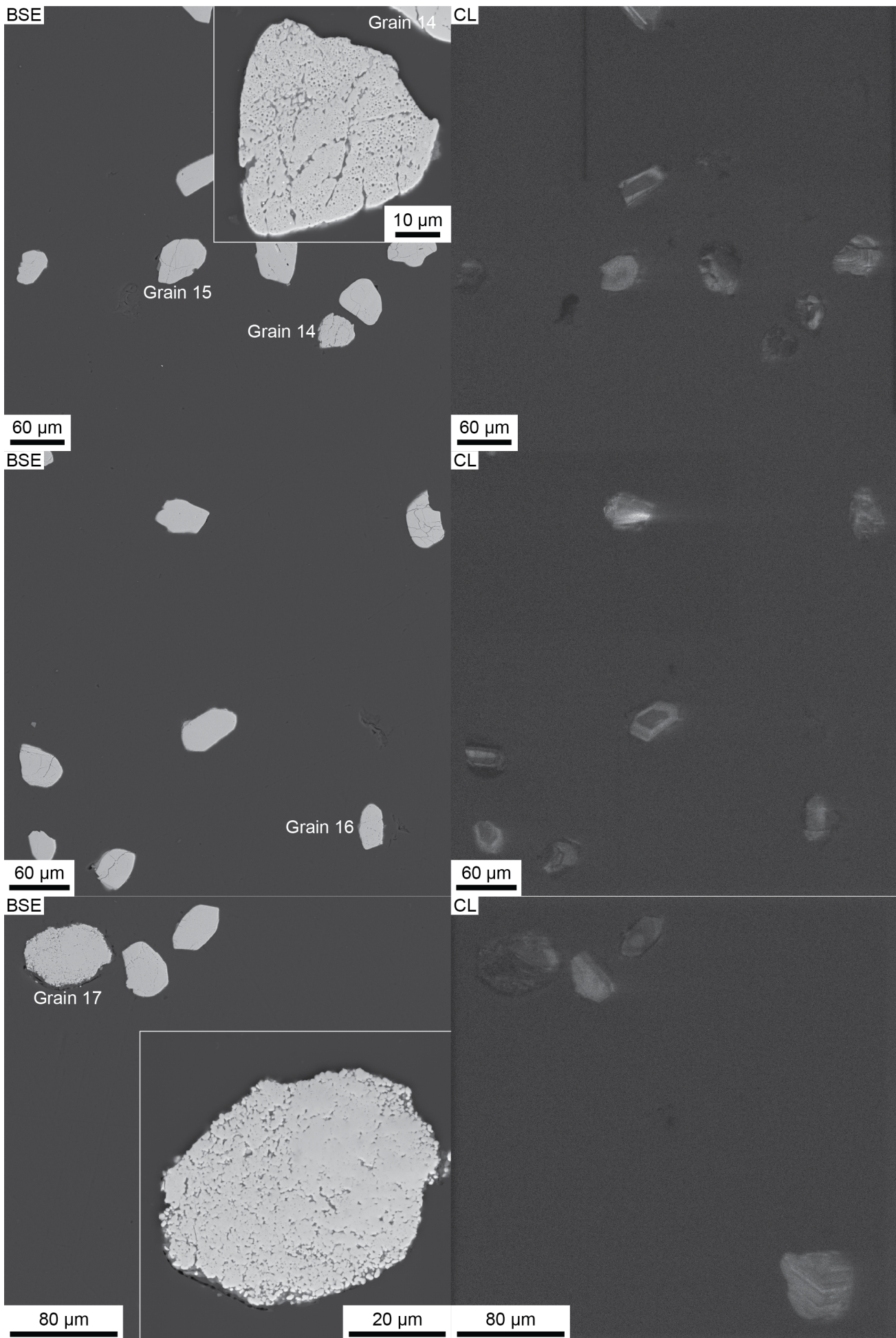




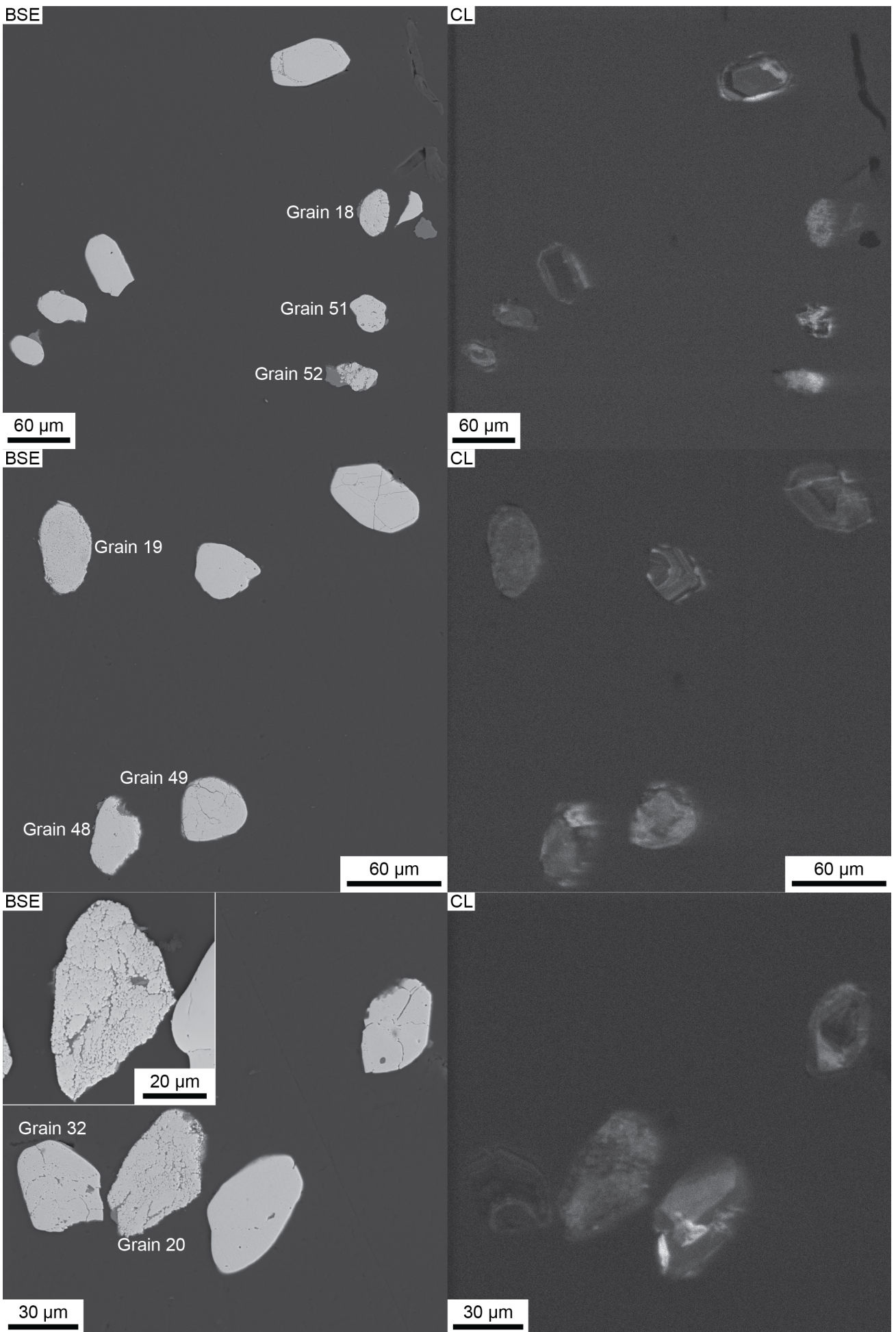




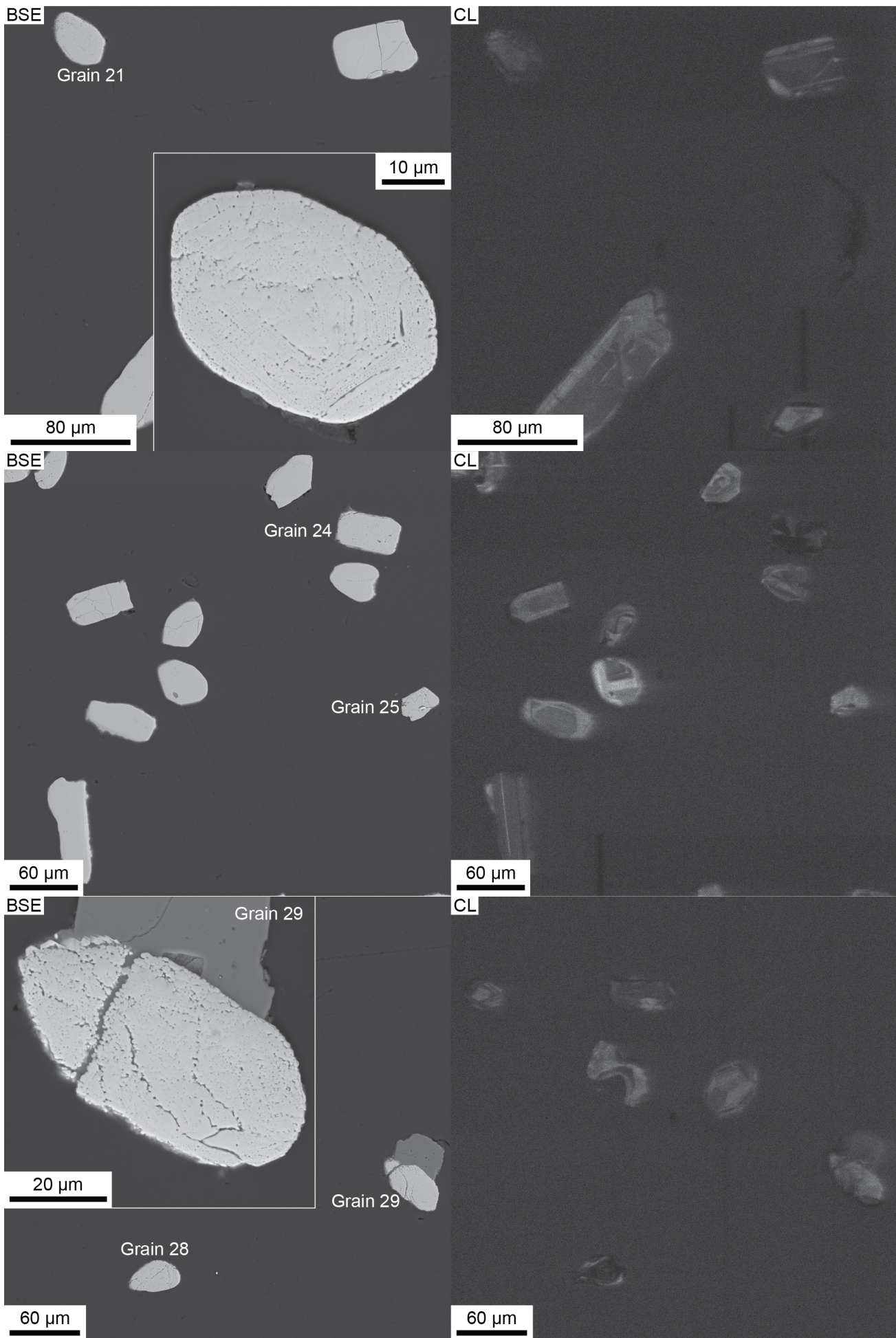




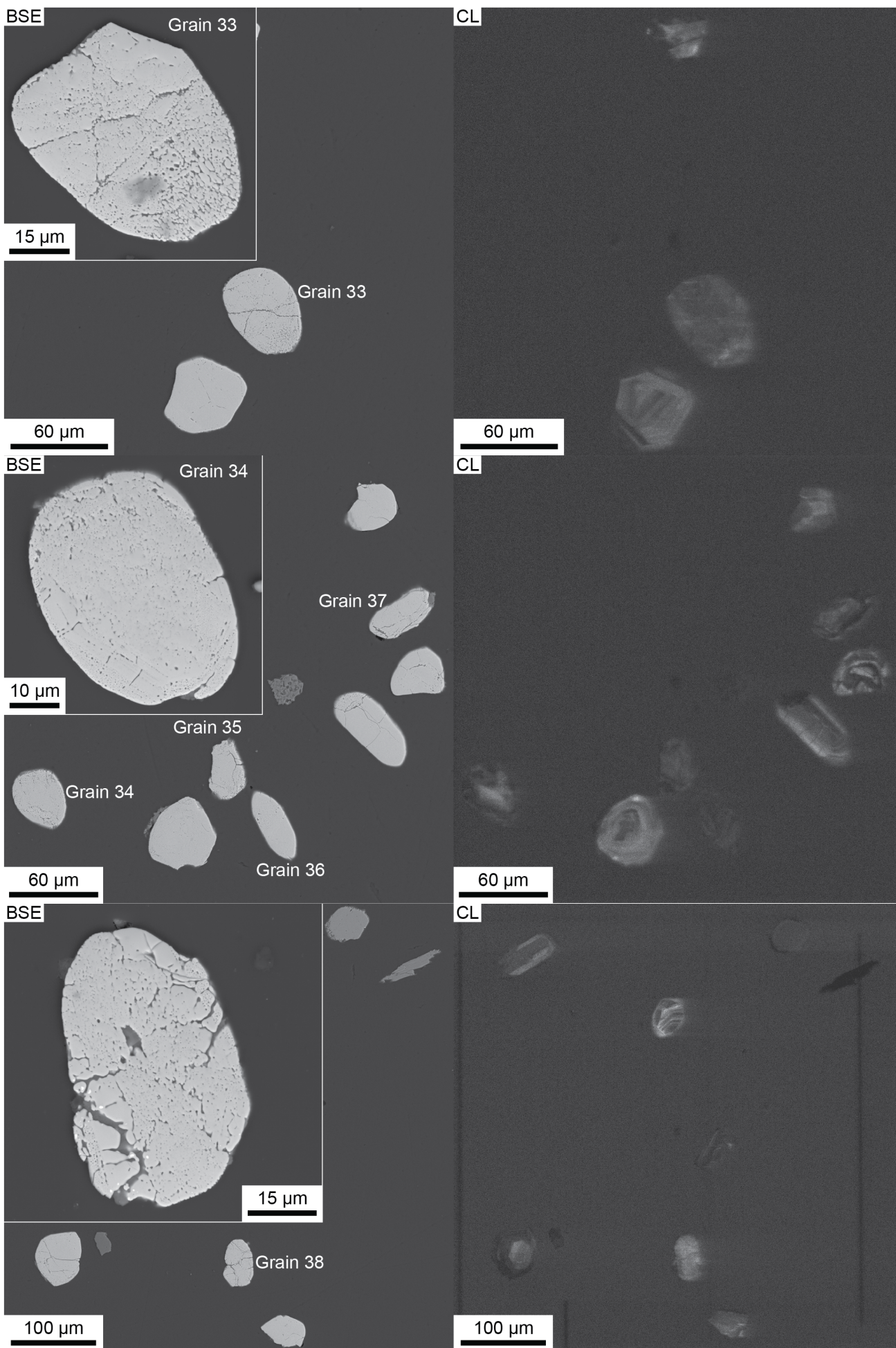




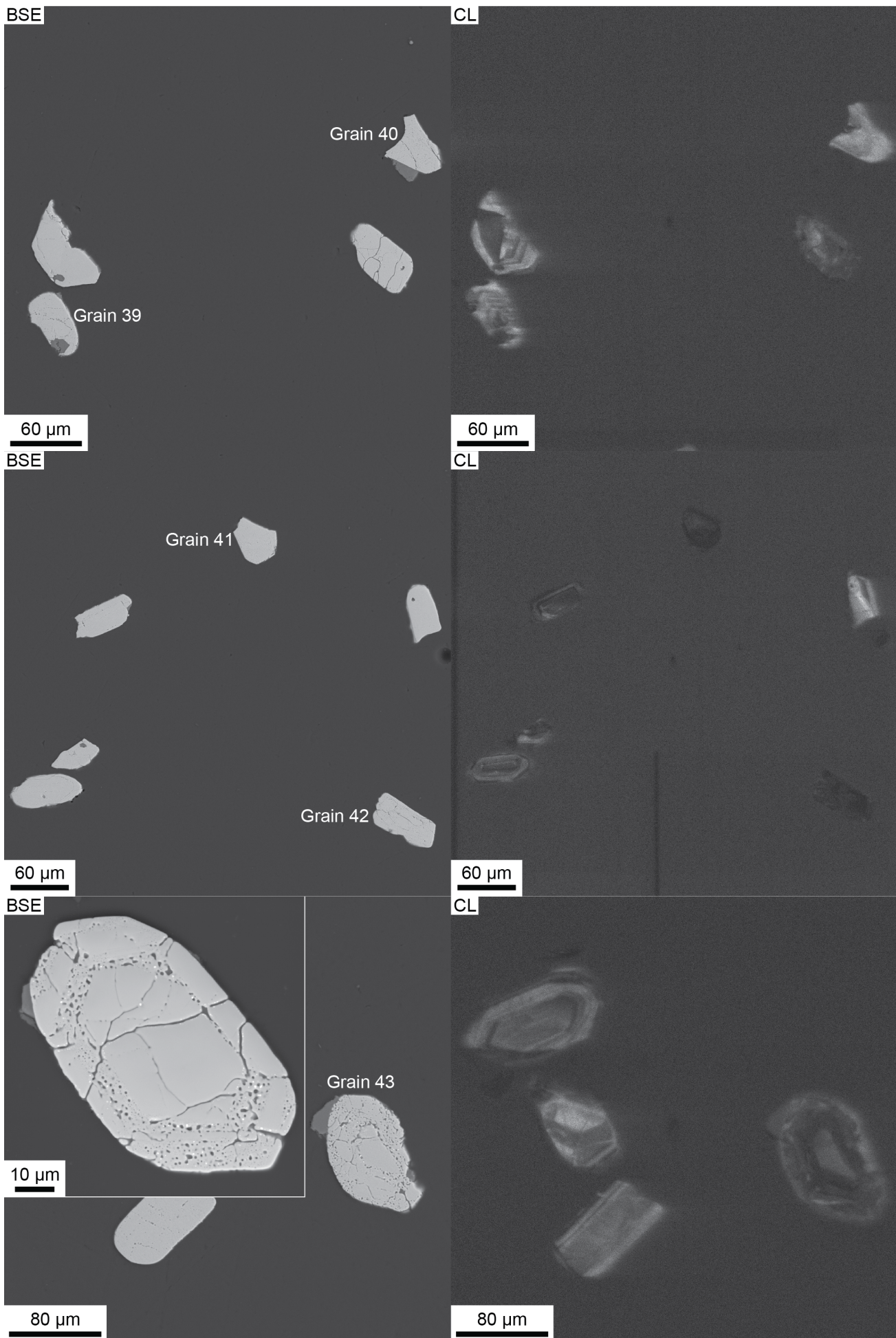




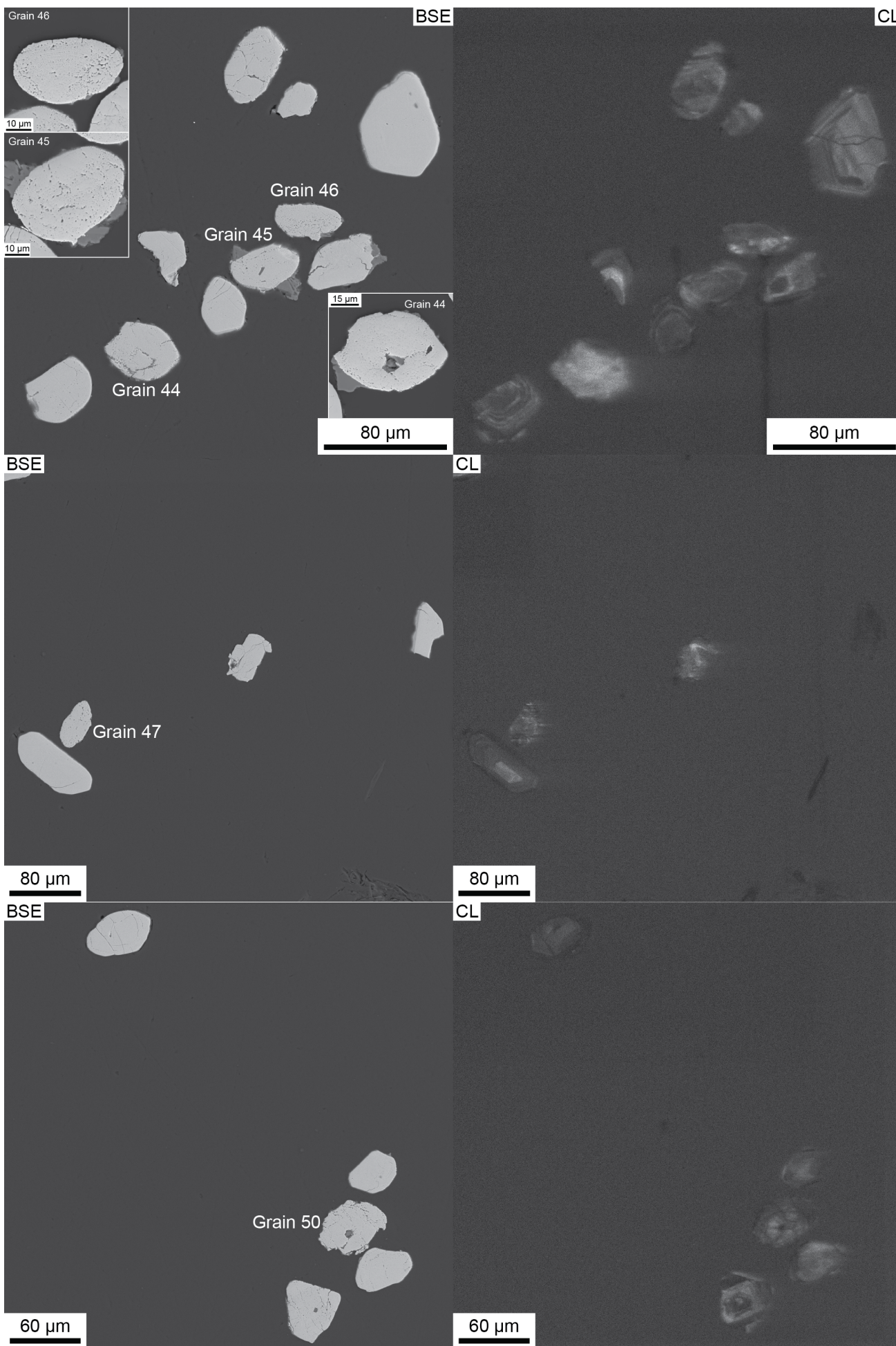














### DR 1.3 Suevitic breccia

