



SUPPLEMENTARY FIGURE OM1. The map of Mount Z7100 with PY3 and PY4 pyrite grains. Also shown are the $\delta^{34}\text{S}$ values (‰, green numbers) and Ni contents (ppm, blue numbers). The white ellipse only illustrates the location of each spot analysis, and the size is not the actual spot size. The yellow dashed lines with arrow are the direction with an increasing trend of $\delta^{34}\text{S}$, which can be pyrite crystal growth direction.



SUPPLEMENTARY FIGURE OM2. The map of Mount Z7102 with PY5 and PY6 pyrite grains. Also shown are the $\delta^{34}\text{S}$ values (‰, green numbers) and Ni contents (ppm, blue numbers). The white ellipse only illustrates the location of each spot analysis, and the size is not the actual spot size. The yellow dashed lines with arrow are the direction with an increasing trend of $\delta^{34}\text{S}$, which can be pyrite crystal growth direction.