



**Figure Supplementary.** Reciprocal space view of single-crystal data of čejkaite; along (a)  $c^*$ , showing all three twin domains, (b)  $b^*$ , with splitting of reflections contributed from the second twin domain reflections, (c)  $c^*$ , where the comparison of pseudo-hexagonal unit cell given by Ondruš et al. (2003), in thin lines, and currently obtained unit cell settings (centered), in thicker lines. The reciprocal unit cell is displayed with  $a^*$  red,  $b^*$  green, and  $c^*$  blue.