



Appendix 2: Figure 4. A- the calculated diffraction pattern of garnet with 42% elbrusite-(Zr) end-member (green line, Table 1, analysis 7, $a = 12.7456(9)$ Å on the basis of single-crystal diffraction data) and the experimental powder diffraction pattern obtained for garnet with 43% elbrusite-(Zr) end-member (Table 1, analysis 13); B- results of Rietveld refinement. Because of the high degree of metamictization of this garnet only the strongest lines are visible on the experimental curve. As a matter of record, $a = 12.75(3)$ Å was determined. Blue arrows show the strongest lines of lakargiite (Lak).