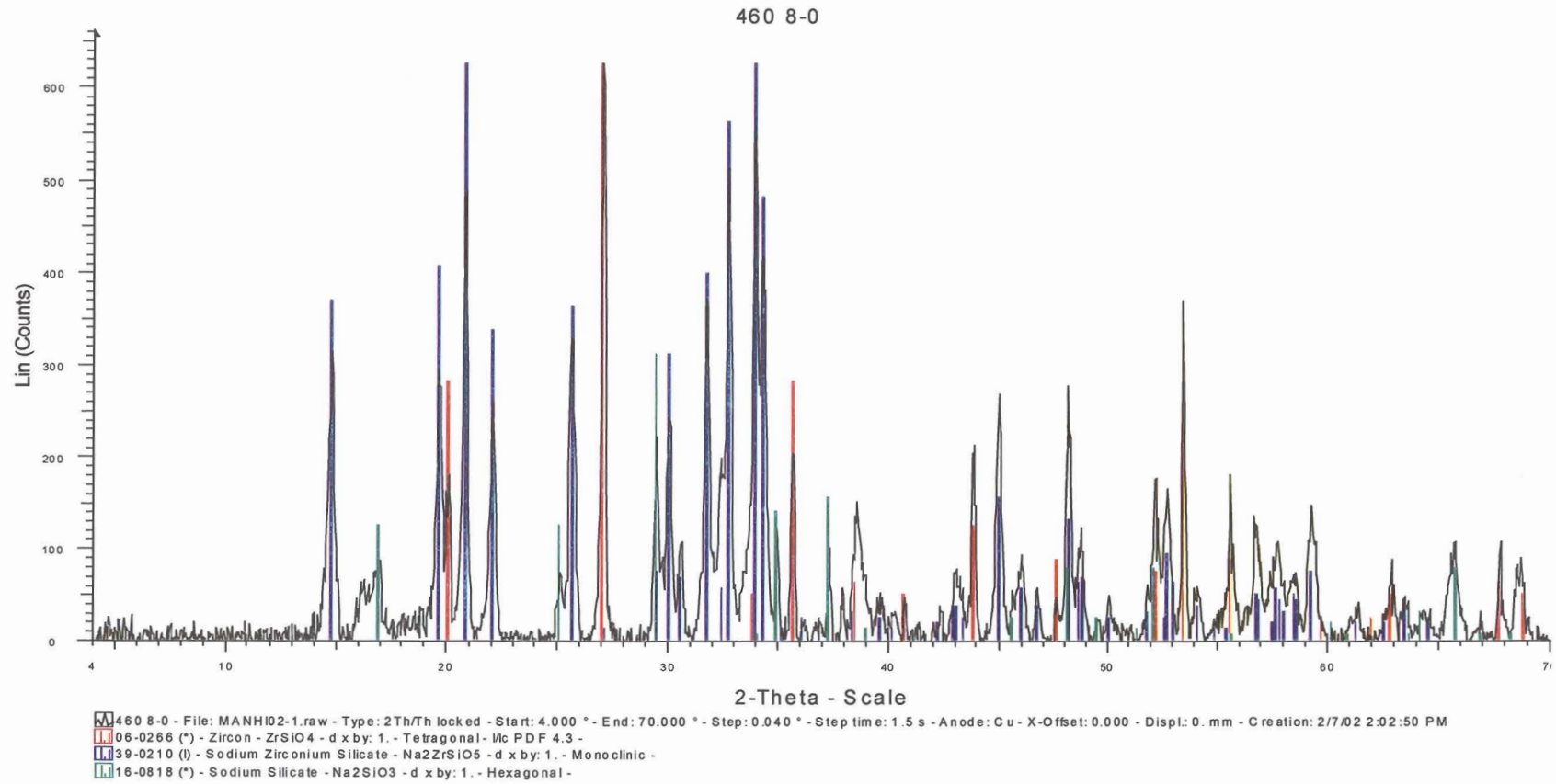
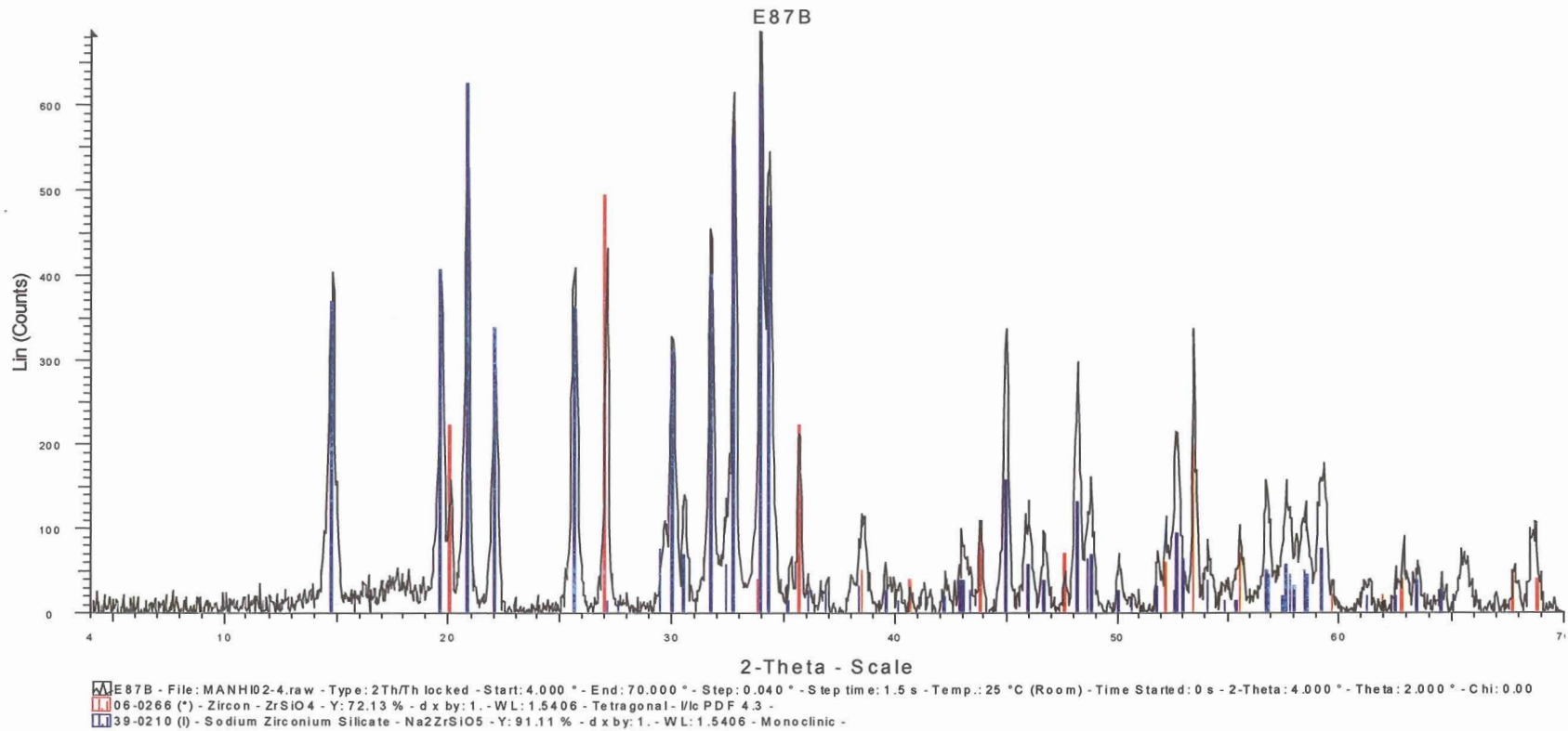


Appendix A



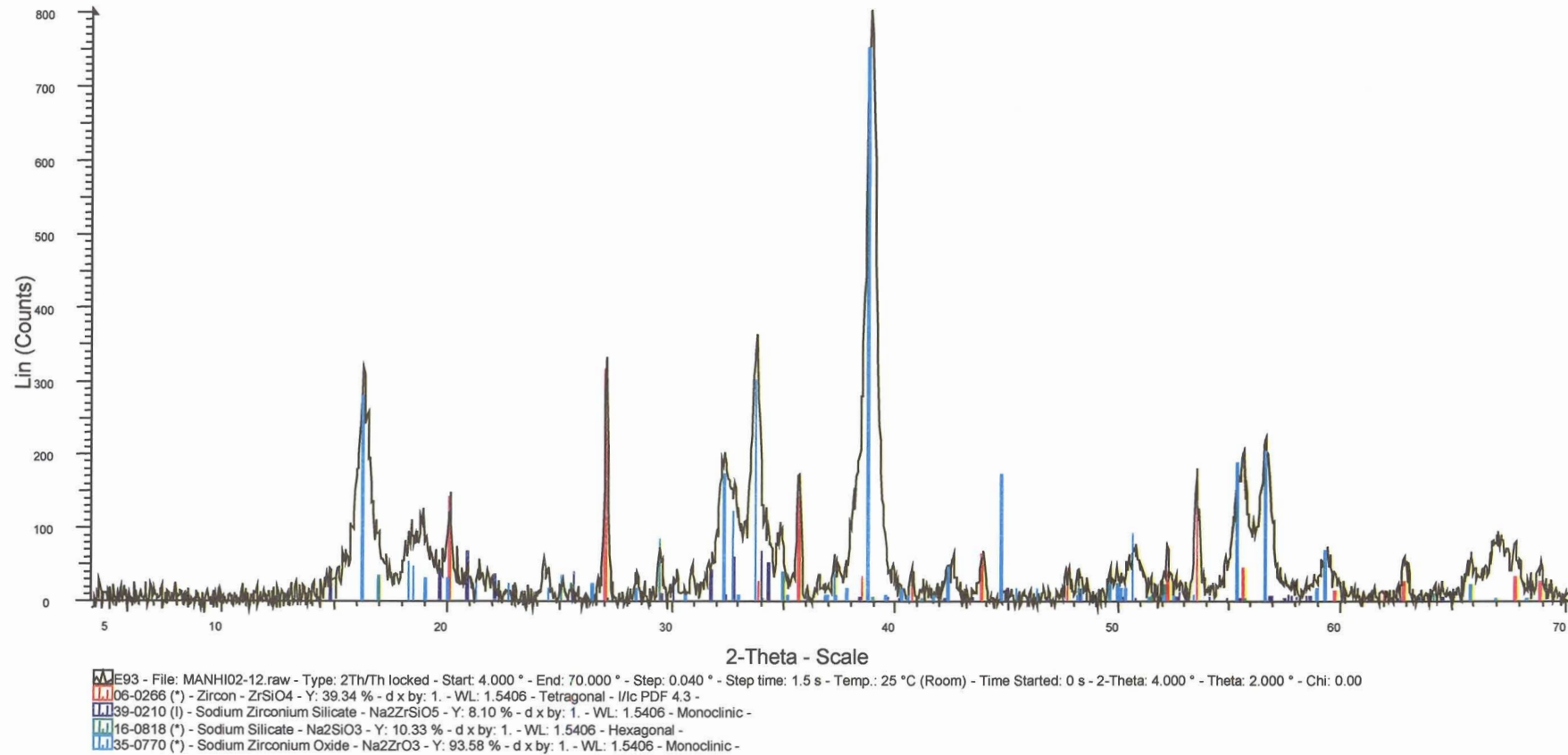
**Spectrum 18:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with two moles of sodium hydroxide at  $850^\circ\text{C}$  for 24 hours with intermediate milling.

Appendix A



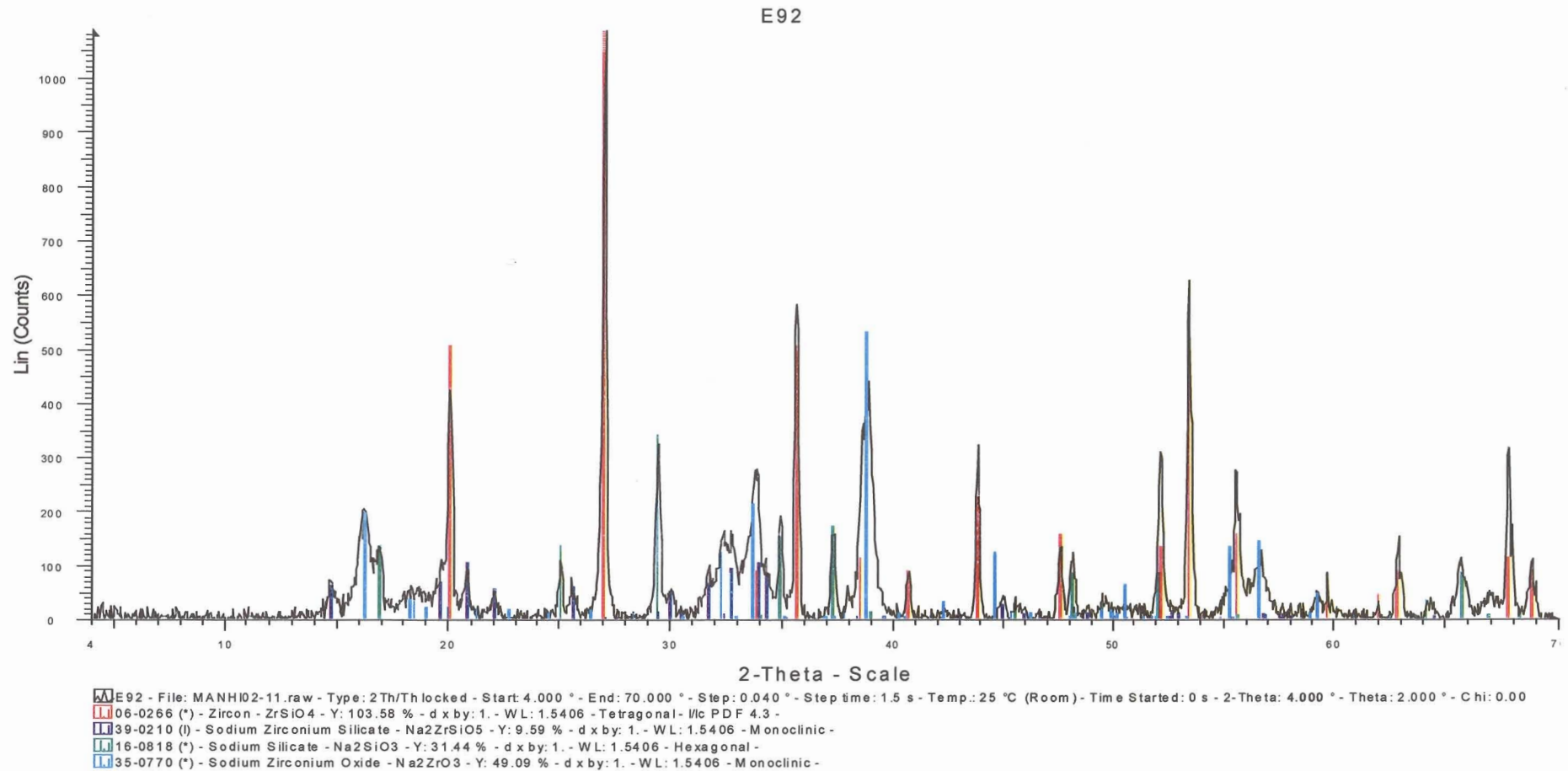
**Spectrum 19:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with two moles of sodium hydroxide at  $850^\circ\text{C}$  for 48 hours with intermediate milling.

## Appendix A



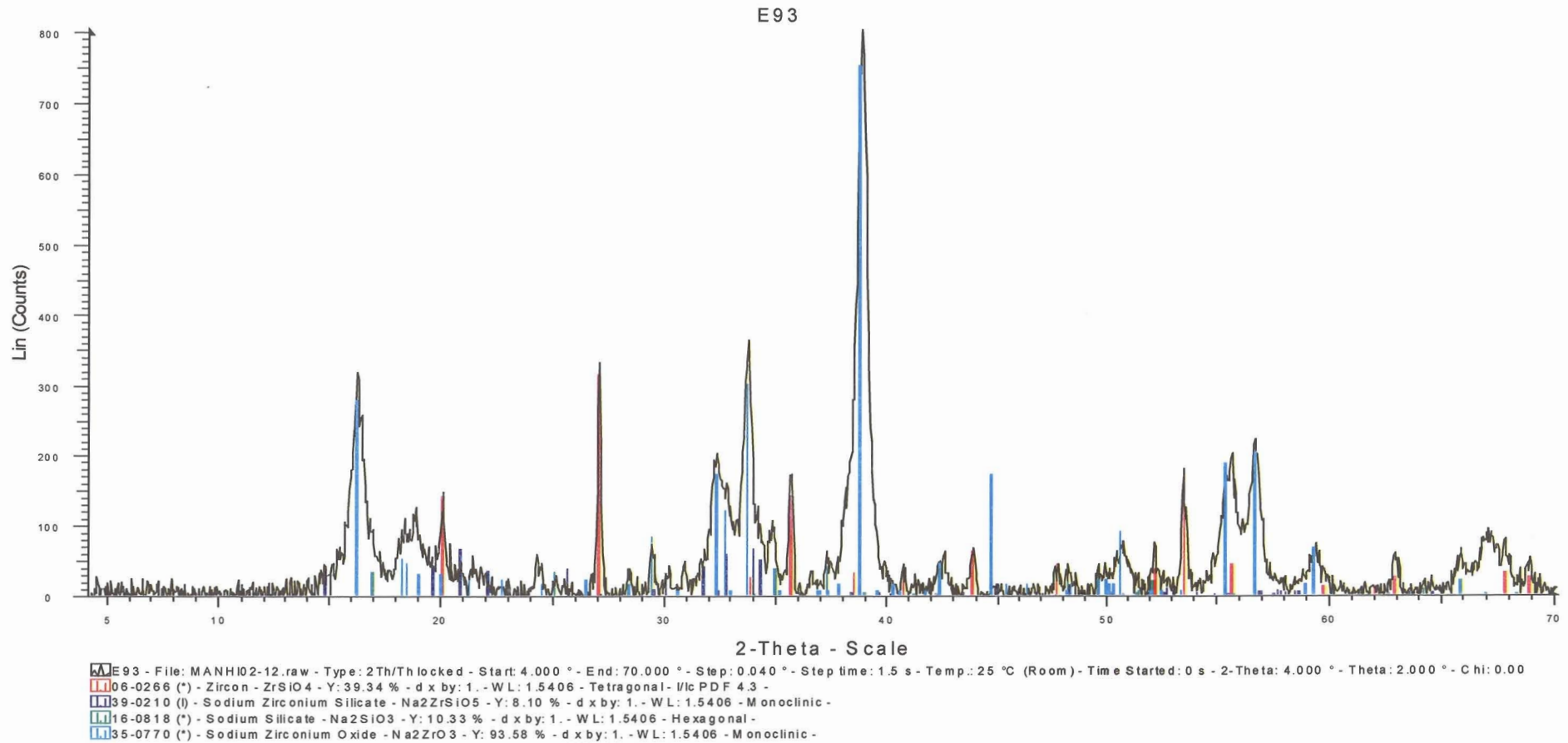
**Spectrum 20:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at  $850^\circ\text{C}$  for two hours with intermediate milling at one hour.

Appendix A



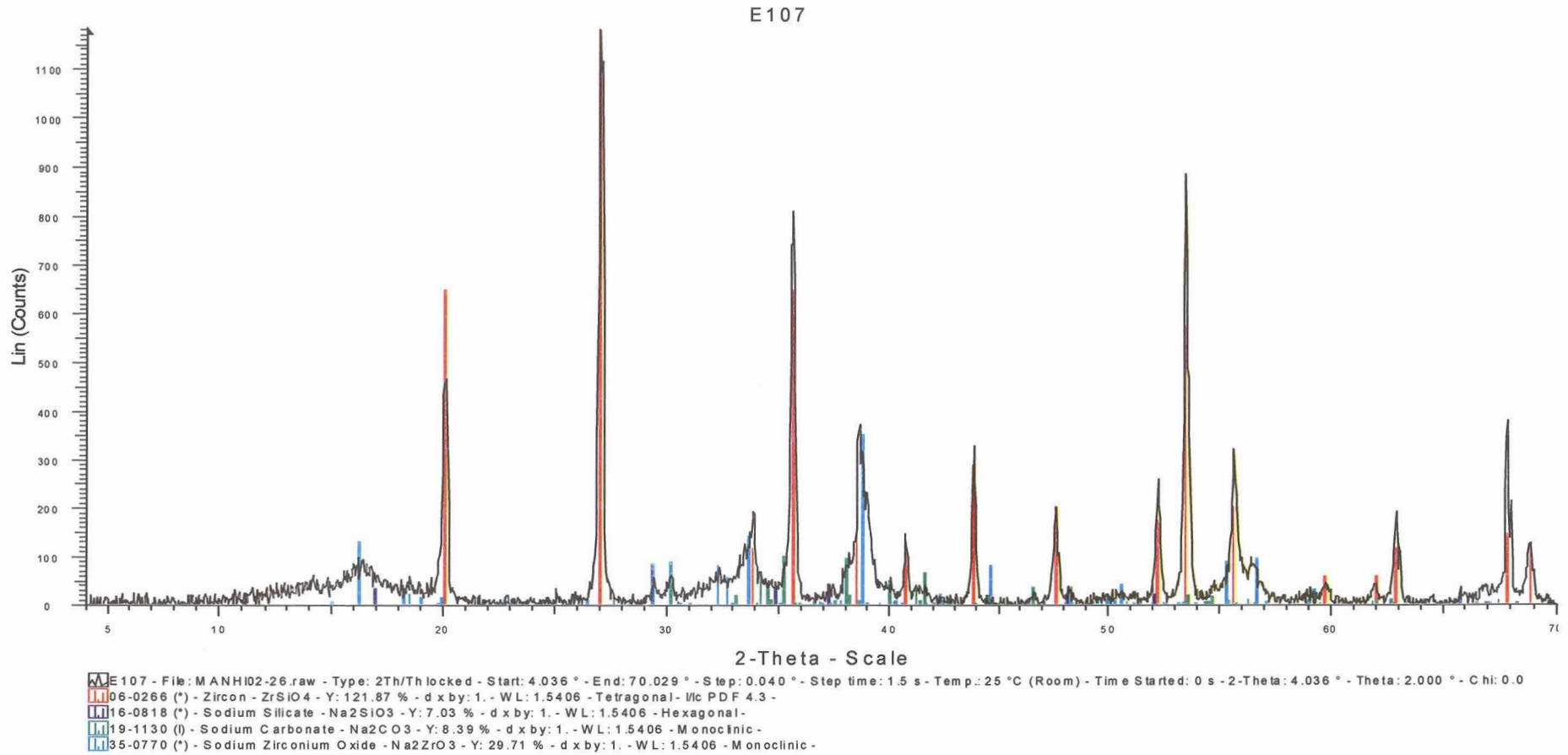
**Spectrum 21:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with two moles of sodium hydroxide at 850°C for 2 hours with intermediate milling.

Appendix A



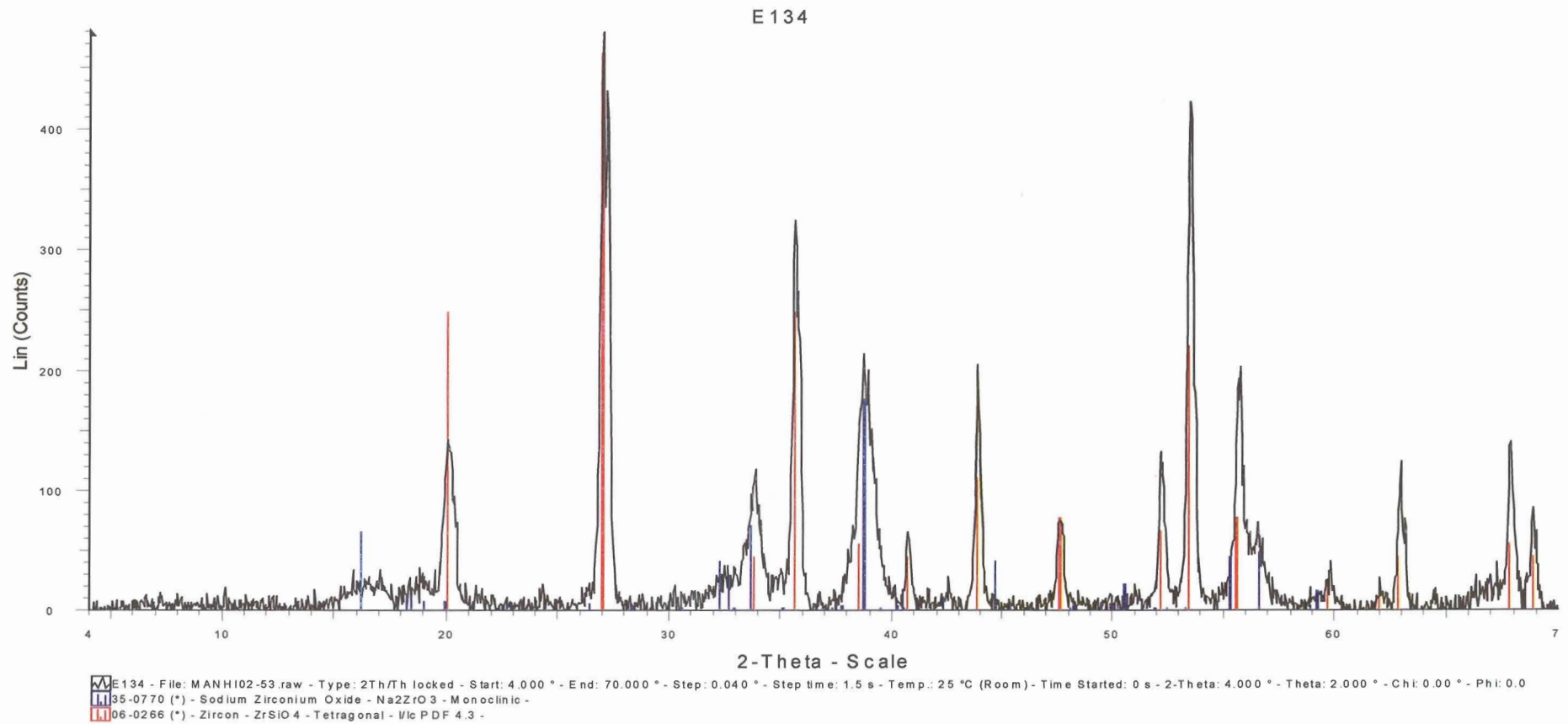
**Spectrum 22:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at  $850^\circ\text{C}$  for two hours with intermediate milling.

Appendix A



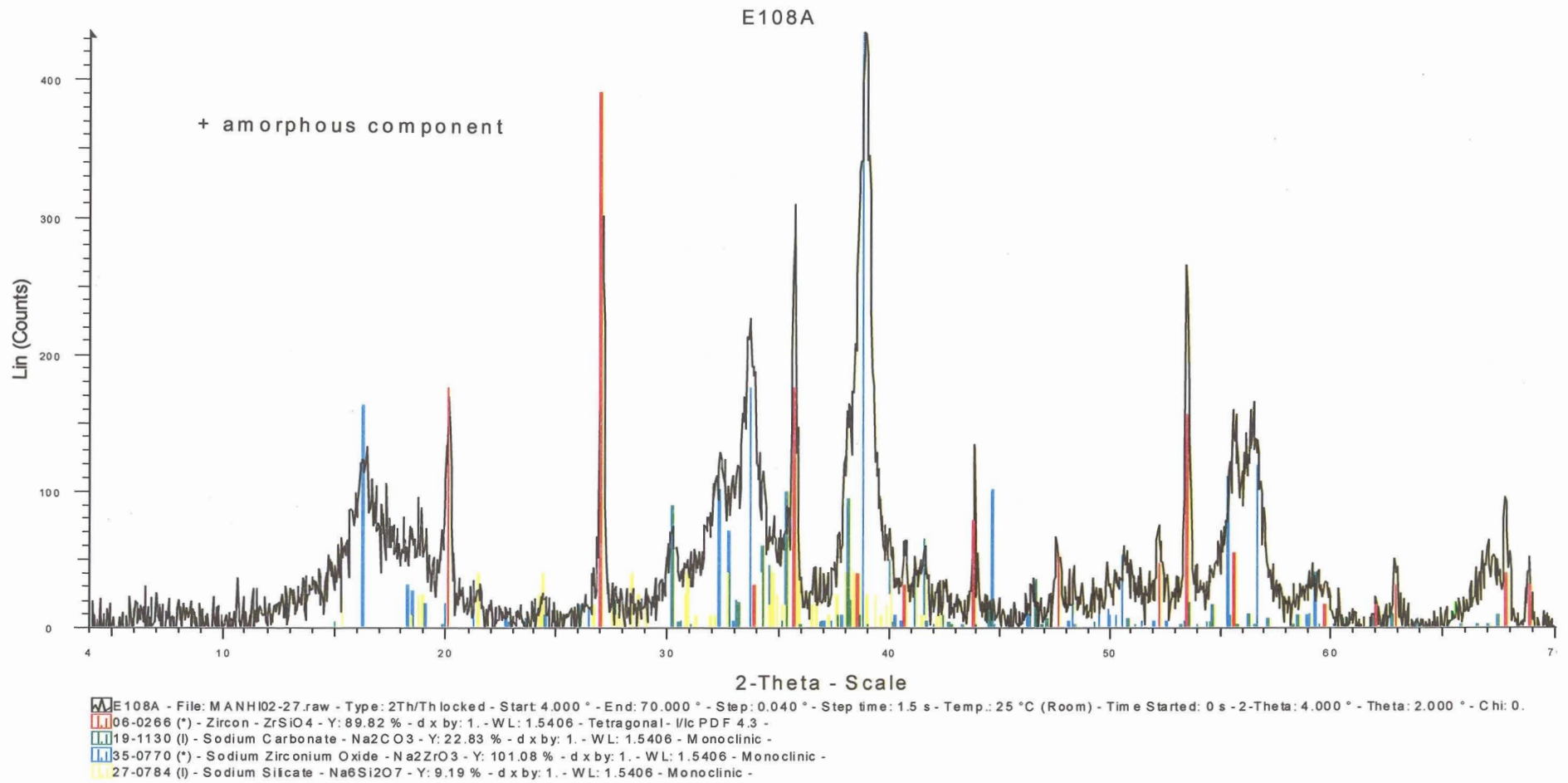
**Spectrum 23:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu m$  was fused with two moles of sodium hydroxide at  $650^\circ C$  for two hours with intermediate milling.

Appendix A



**Spectrum 24:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with two moles of sodium hydroxide at  $650^\circ\text{C}$  for four hours with intermediate milling

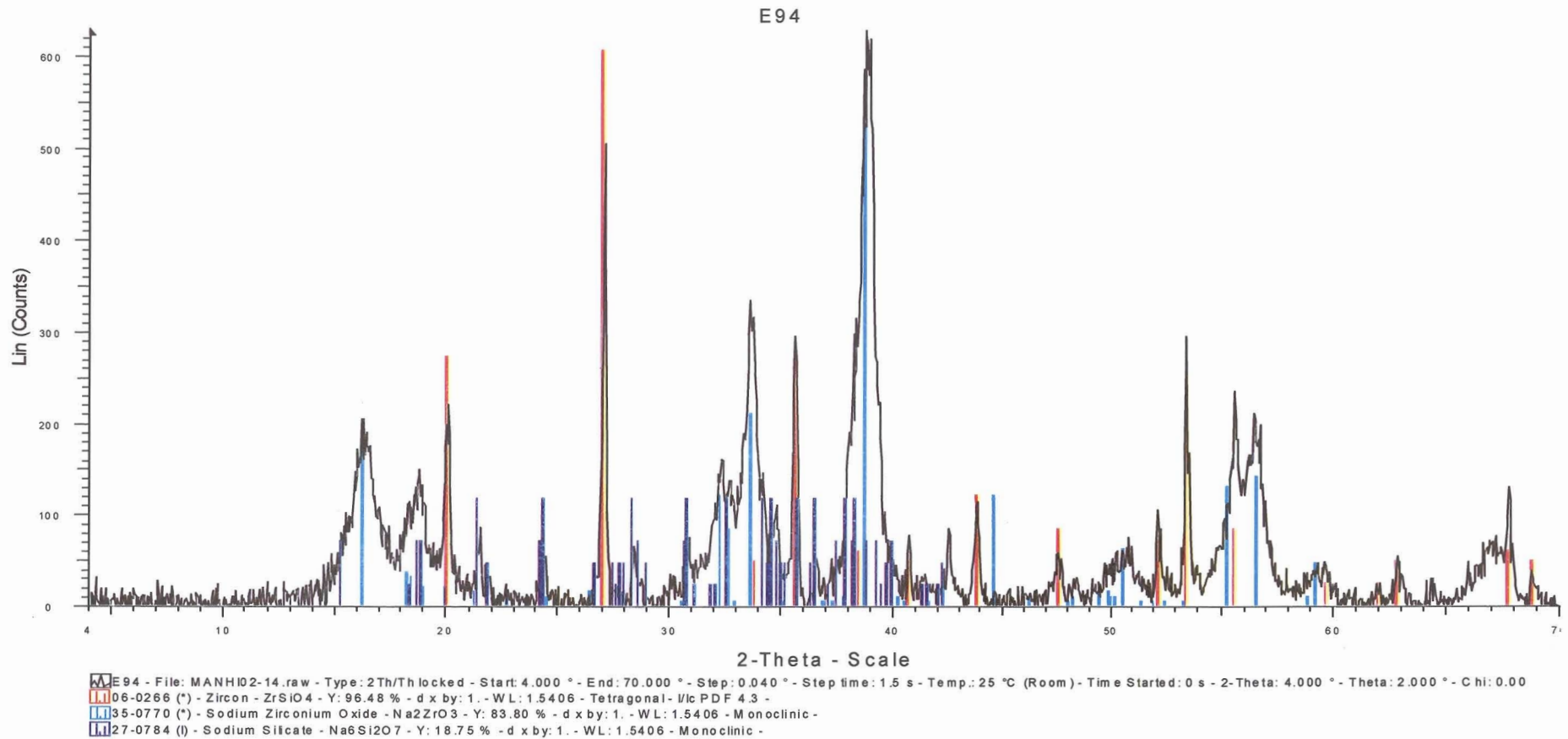
Appendix A



**Spectrum 25:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at  $650^\circ\text{C}$  for one hour with intermediate milling.

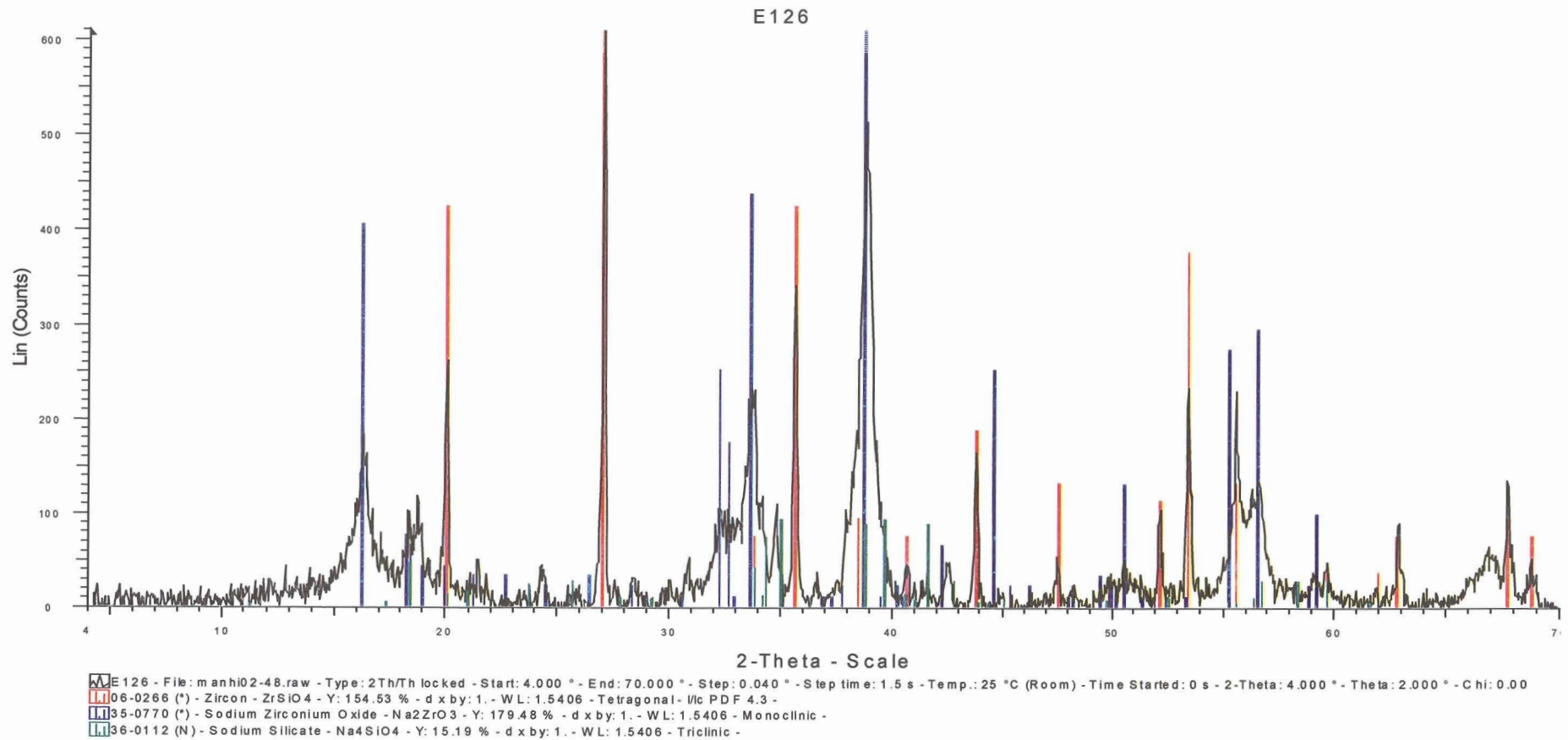


Appendix A



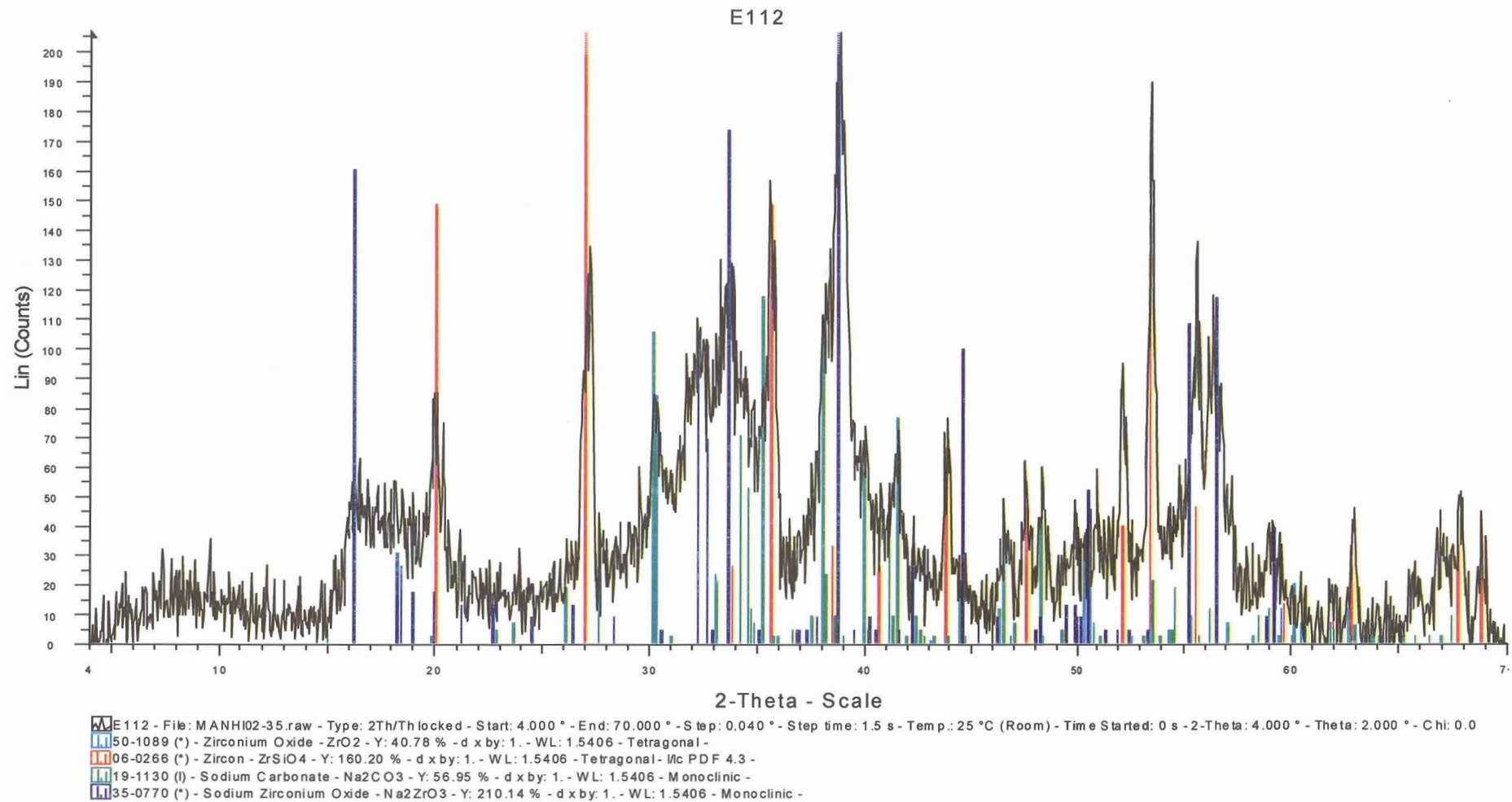
**Spectrum 26:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at  $650^\circ\text{C}$  for two hours with intermediate milling.

Appendix A



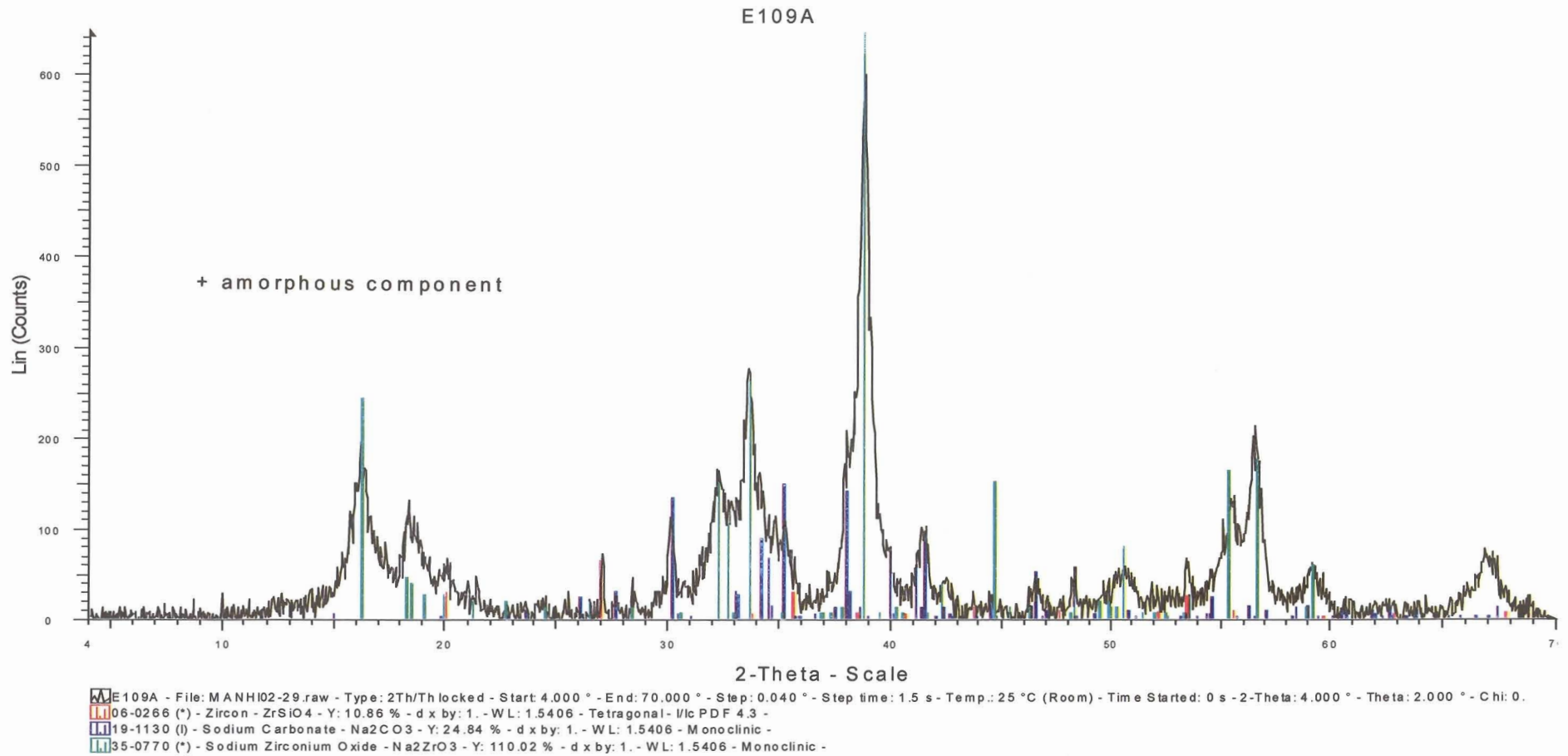
**Spectrum 27:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at  $650^\circ\text{C}$  for four hours with intermediate milling.

Appendix A



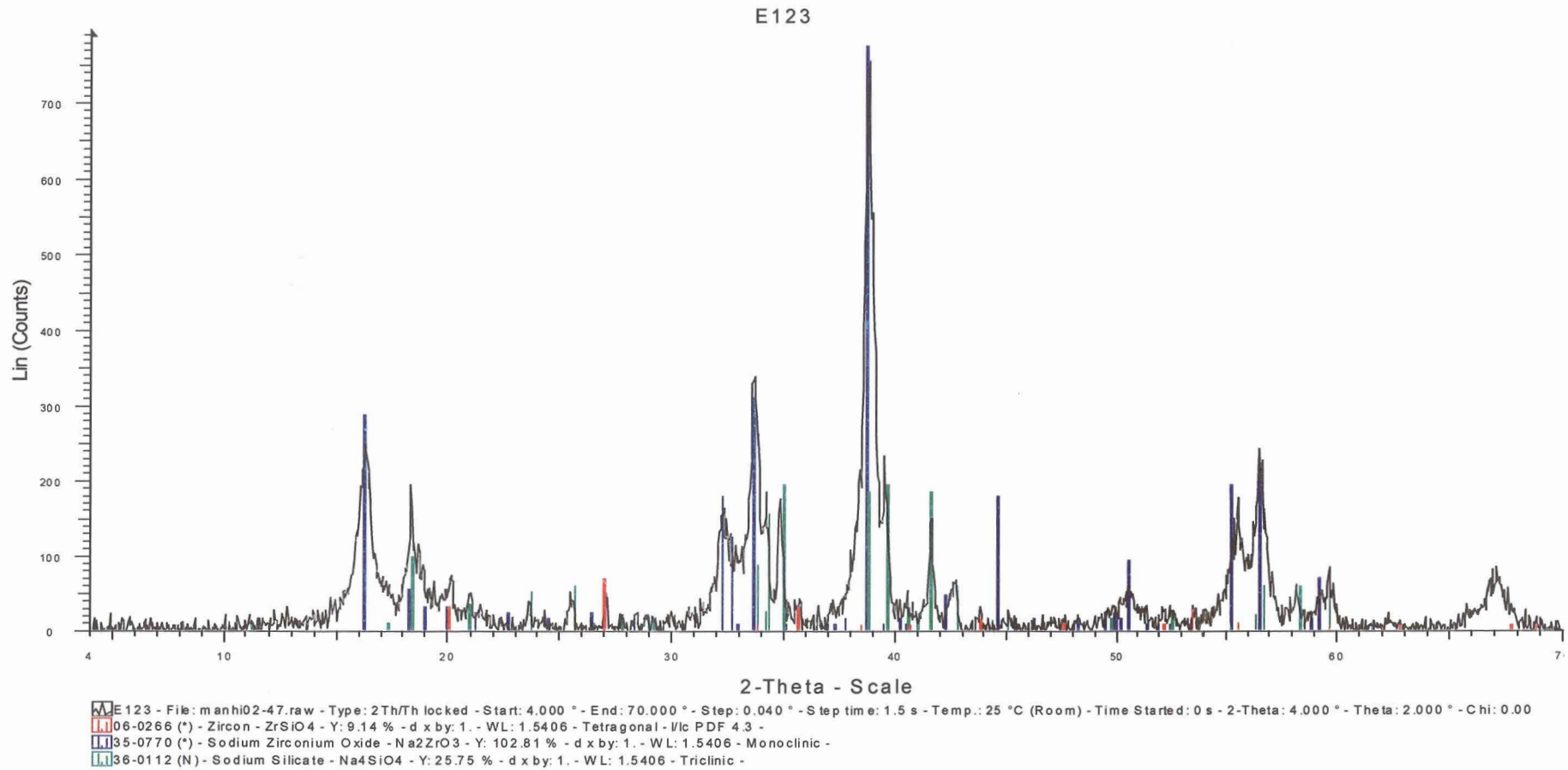
**Spectrum 28:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at  $650^\circ\text{C}$  for 24 hours with intermediate milling.

Appendix A



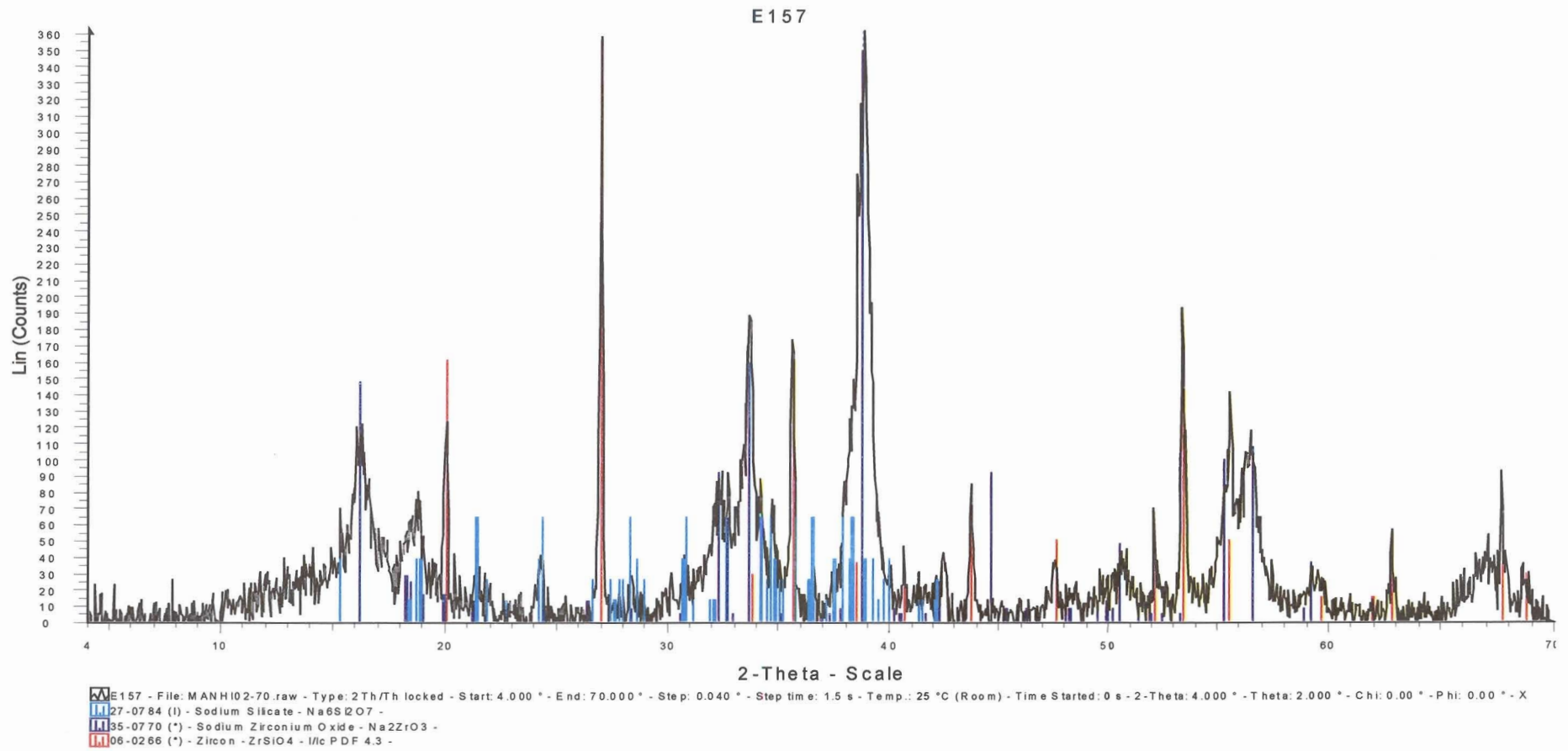
**Spectrum 29:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with six moles of sodium hydroxide at  $650^\circ\text{C}$  for one hour with intermediate milling.

Appendix A



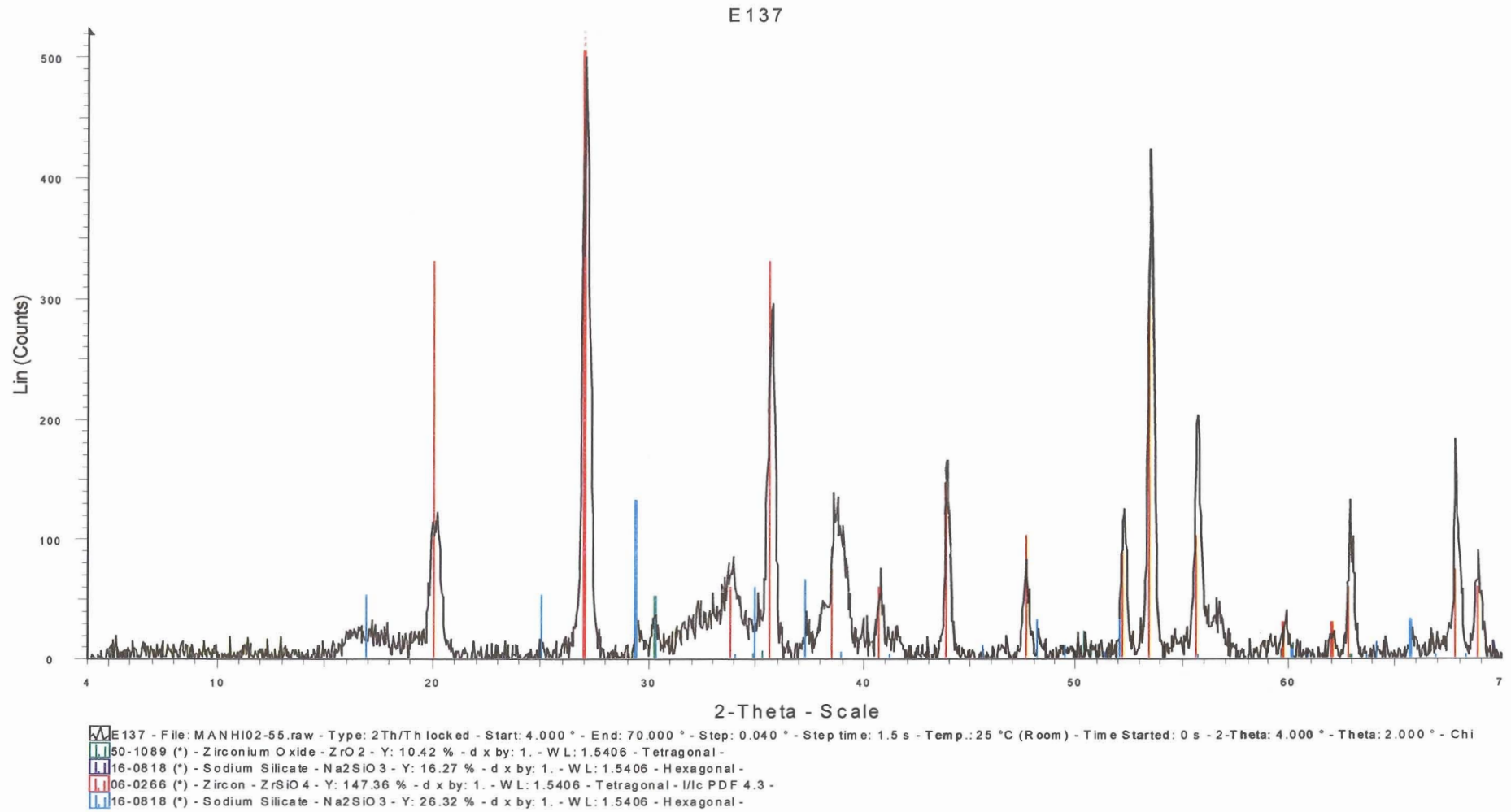
**Spectrum 30:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with six moles of sodium hydroxide at  $650^\circ\text{C}$  for two hours with intermediate milling.

Appendix A



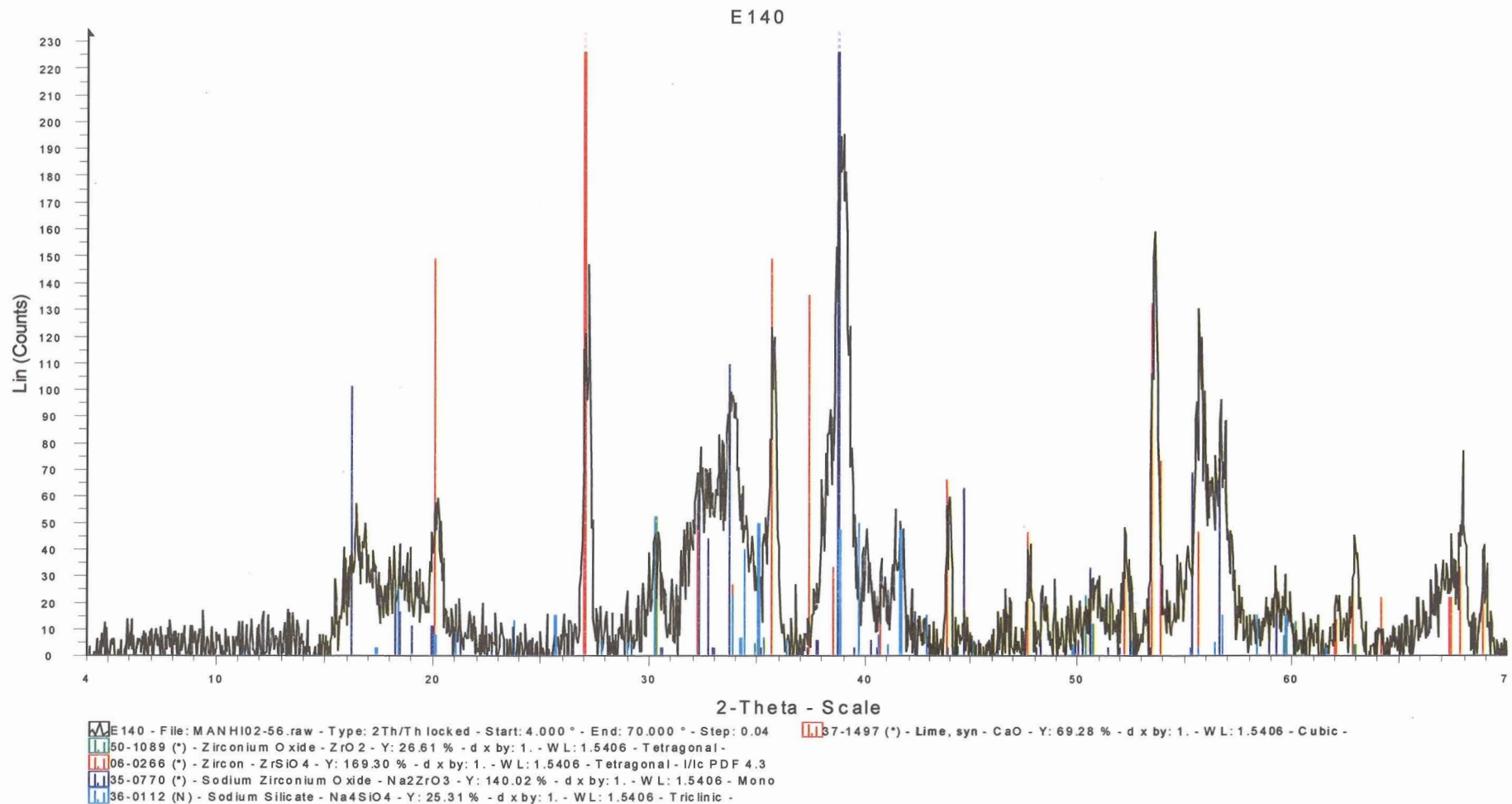
**Spectrum 31:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at  $700^\circ\text{C}$  for four hours with intermediate milling.

Appendix A



**Spectrum 32:** XRD spectrum of zircon alkali fused. A mole of zircon  $d \approx 9.0 \mu\text{m}$  was fused with two moles of sodium hydroxide at  $750^\circ\text{C}$  for two hours with intermediate milling.

Appendix A



**Spectrum 33:** XRD spectrum of zircon alkali fused. A mole of zircon d  $\approx 9.0 \mu\text{m}$  was fused with four moles of sodium hydroxide at 750°C for two hours with intermediate milling.