Electronic Supplementary Material (ESI) for Dalton Transactions.

Supplemental Information

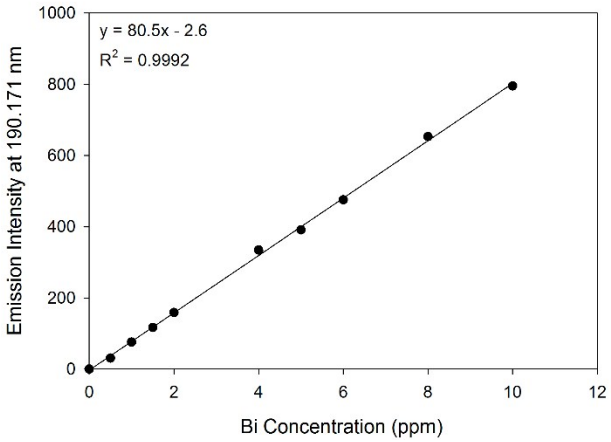

Fig. 1. Calibration curve for bismuth concentration using the 190.171 nm line.

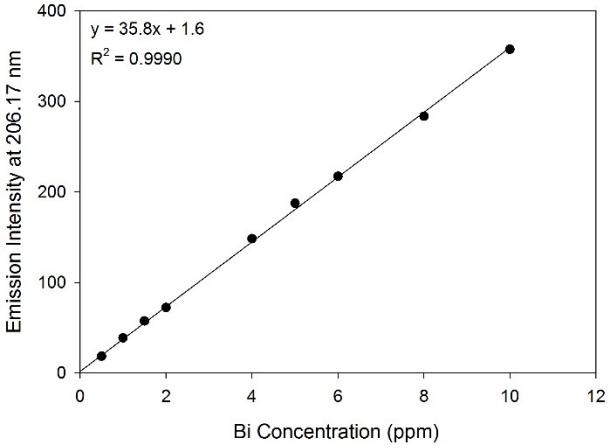

Fig. 2. Calibration curve for bismuth concentration using the 206.17 nm line.

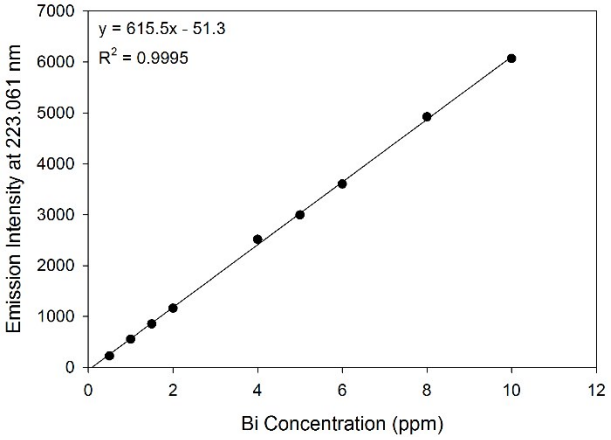

Fig. 3. Calibration curve for bismuth concentration using the 223.061 nm line.

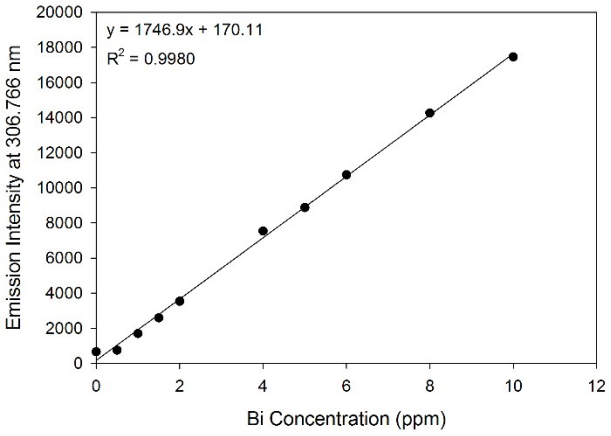

Fig. 4. Calibration curve for bismuth concentration using the 306.766 nm line.

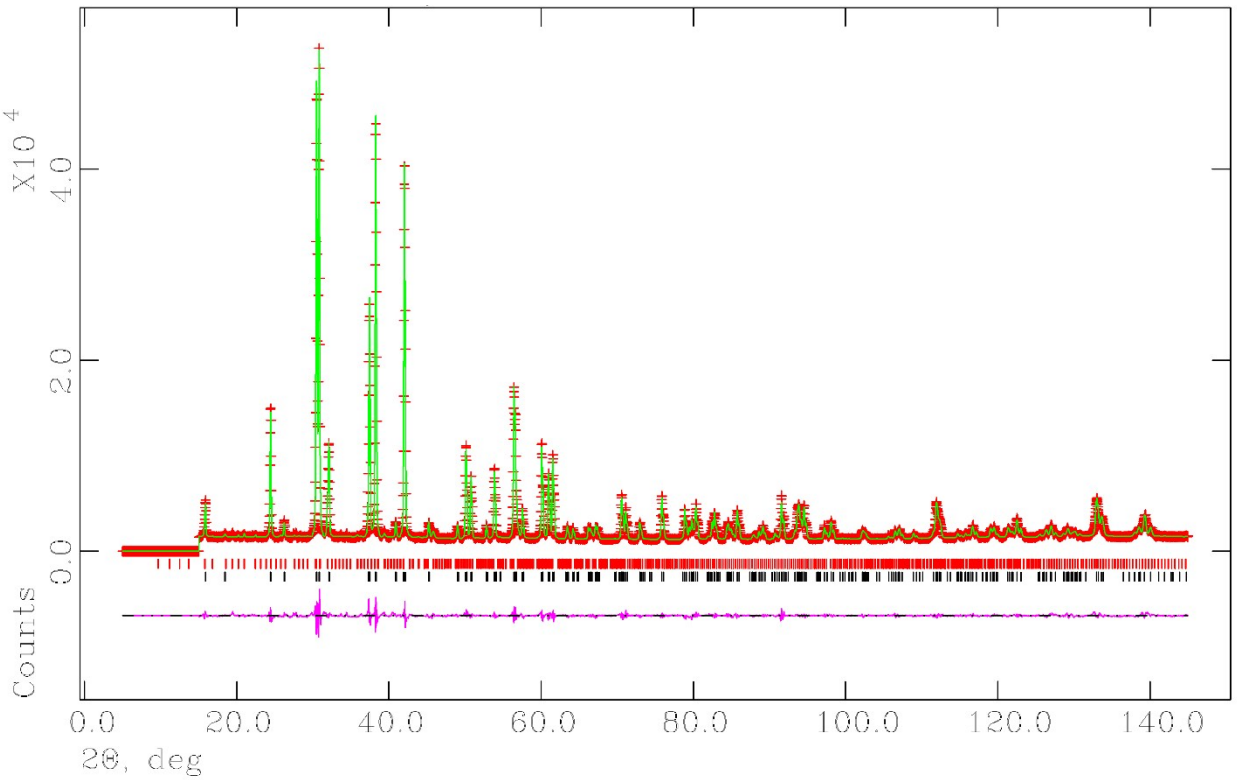

Fig. 5. Observed (red), calculated (green), and difference (pink) profiles generated by Rietveld refinement based on PXRD data for $Sr_{2.976}Bi_{0.016}AlO_4F$. The main phase peak positions are indicated by black lines and the $Sr_3Al_2O_6$ peak positions are indicated by red lines. χ^2=5.269

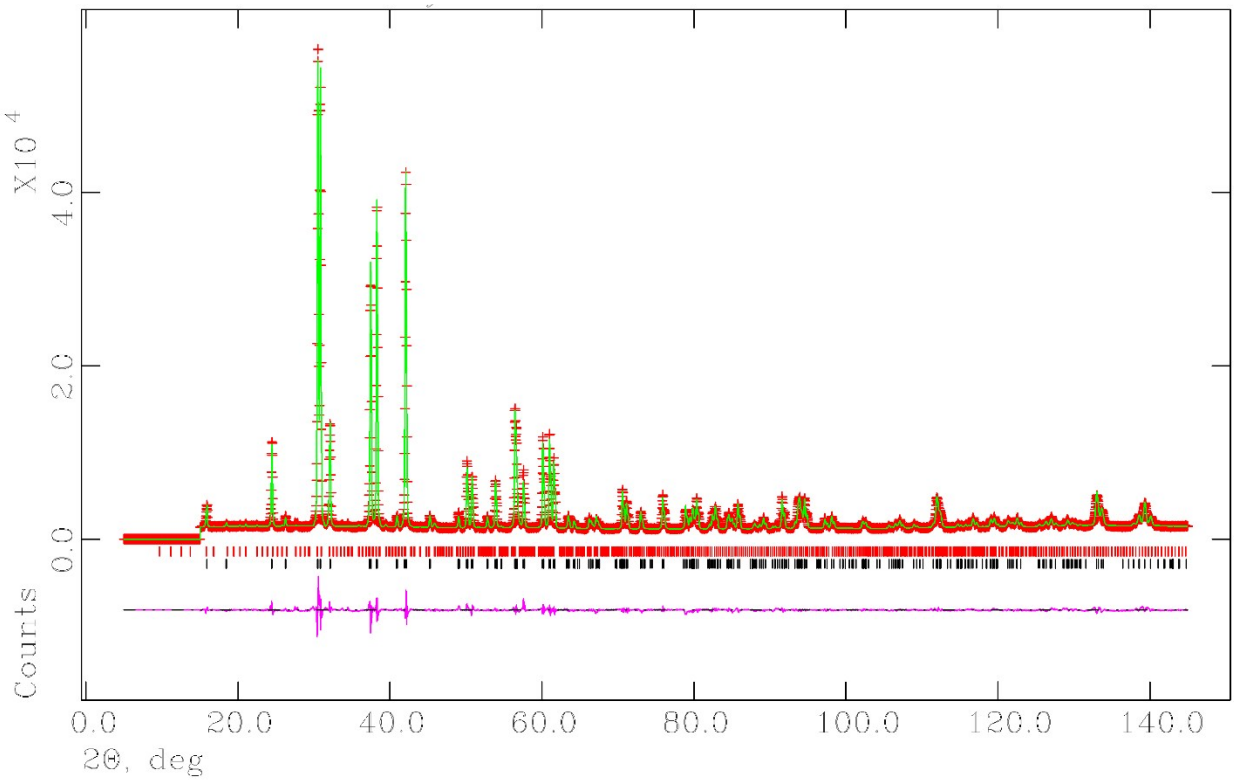

Fig. 6. Observed (red), calculated (green), and difference (pink) profiles generated by Rietveld refinement based on PXRD data for $Sr_{2.952}Bi_{0.032}AlO_4F$. The main phase peak positions are indicated by black lines and the $Sr_3Al_2O_6$ peak positions are indicated by red lines. χ^2=5.660

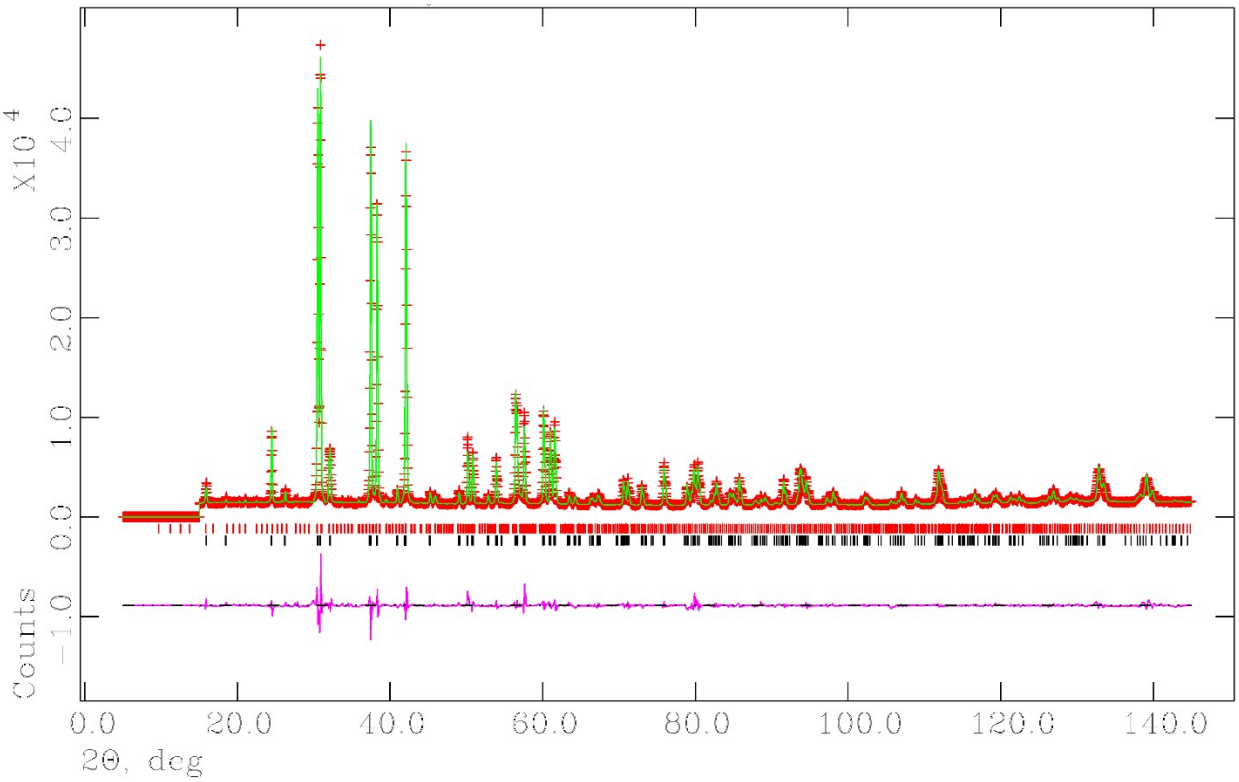

Fig. 7. Observed (red), calculated (green), and difference (pink) profiles generated by Rietveld refinement based on PXRD data for $Sr_{2.928}Bi_{0.048}AlO_4F$. The main phase peak positions are indicated by black lines and the $Sr_3Al_2O_6$ peak positions are indicated by red lines. χ^2=7.294

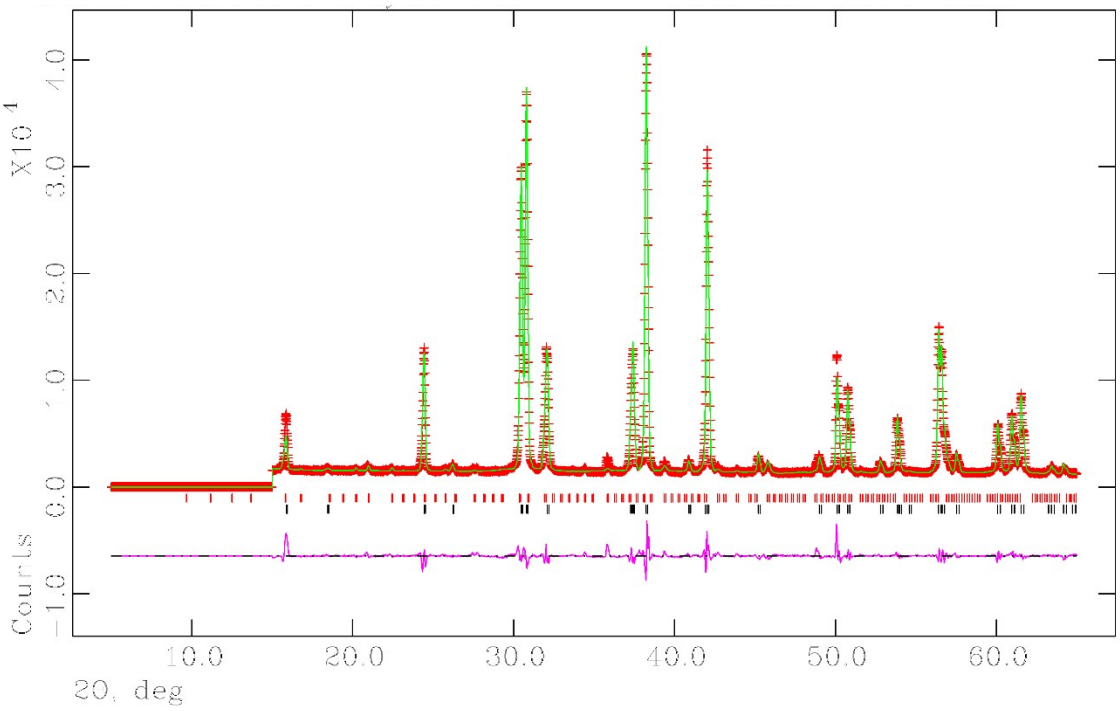

Fig. 8. Observed (red), calculated (green), and difference (pink) profiles generated by Rietveld refinement based on PXRD data for $Sr_{2.9}Bi_{0.067}AlO_4F$. The main phase peak positions are indicated by black lines and the $Sr_3Al_2O_6$ peak positions are indicated by red lines. χ^2=12.82

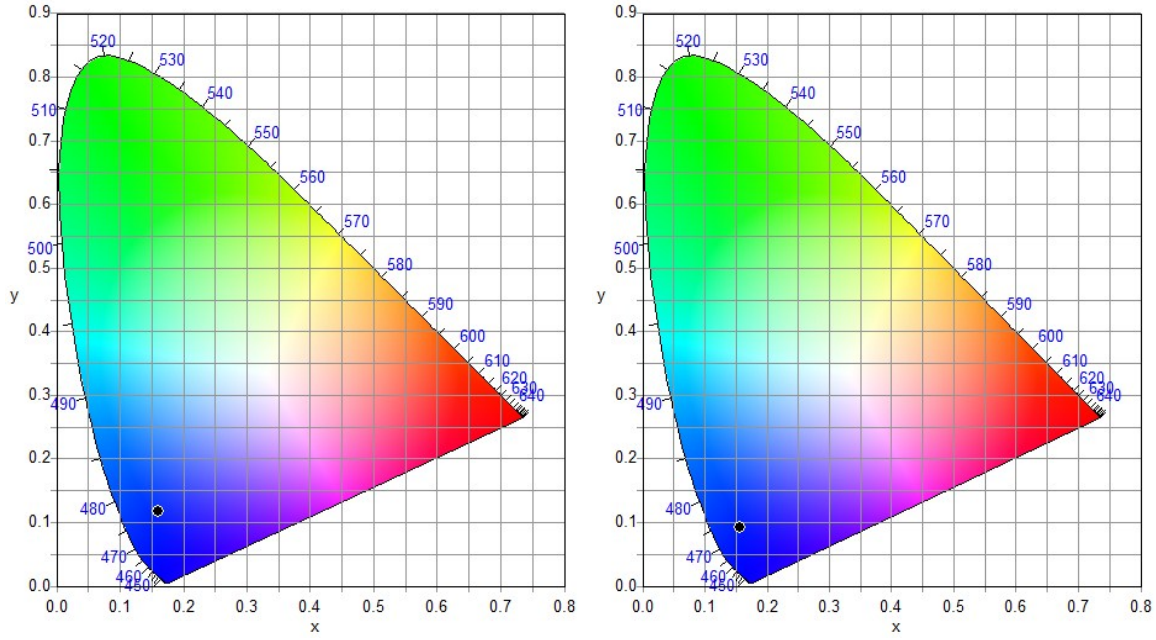

Fig. 9. CIE diagrams of $Sr_{2.952}Bi_{0.032}AlO_4F$ (x = 0.1606, y = 0.1166, left), and $Sr_{2.9}Bi_{0.067}AlO_4F$ (x = 0.1569, y = 0.0926, right).

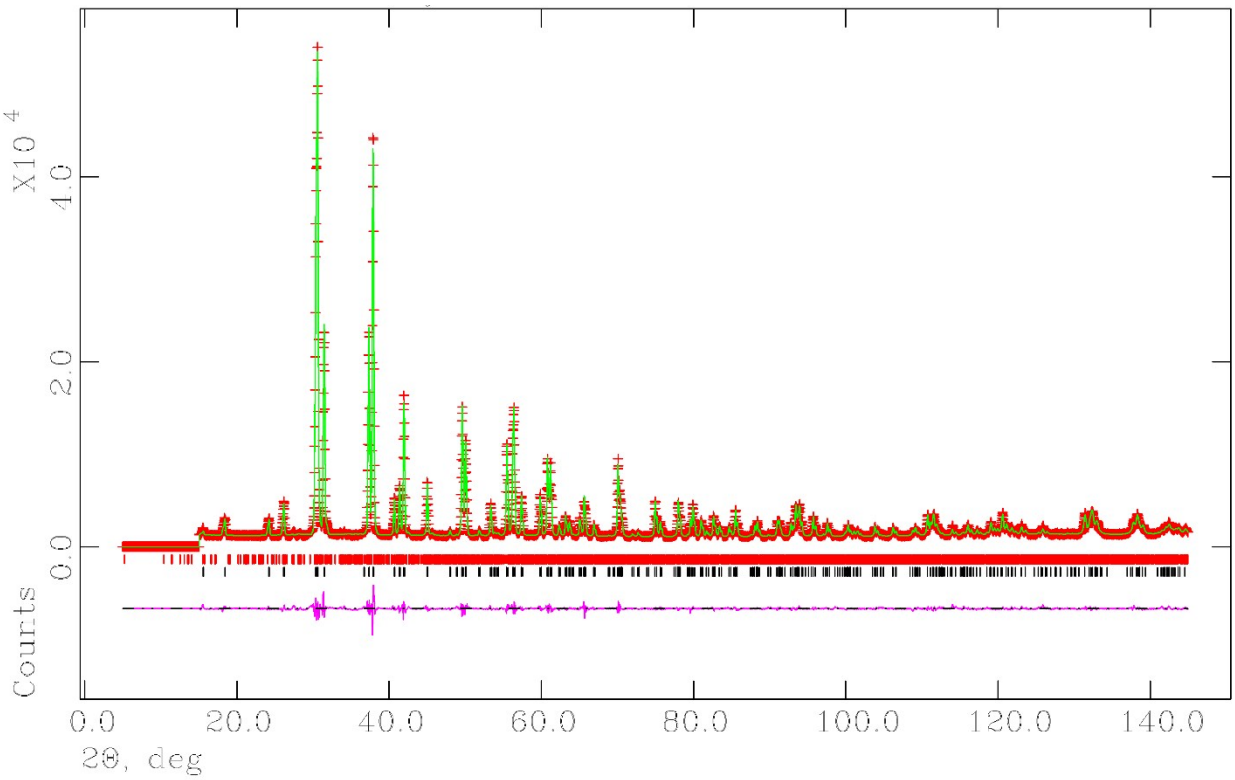

Fig. 10. Observed (red), calculated (green), and difference (pink) profiles generated by Rietveld refinement based on PXRD data for $Sr_{2.976}Bi_{0.016}GaO_4F$. The main phase peak positions are indicated by black lines and the $Sr_{10}Ga_6O_{19}$ peak positions are indicated by red lines. χ^2=5.255