



APPENDIX B: RESIDUAL PLOTS

This section presents the residual plots of 19 different systems considered in this study which are the following

B.1 Water (2) + NaCl (8)

The residual plot for water (2) + NaCl (8) system is shown as follows:

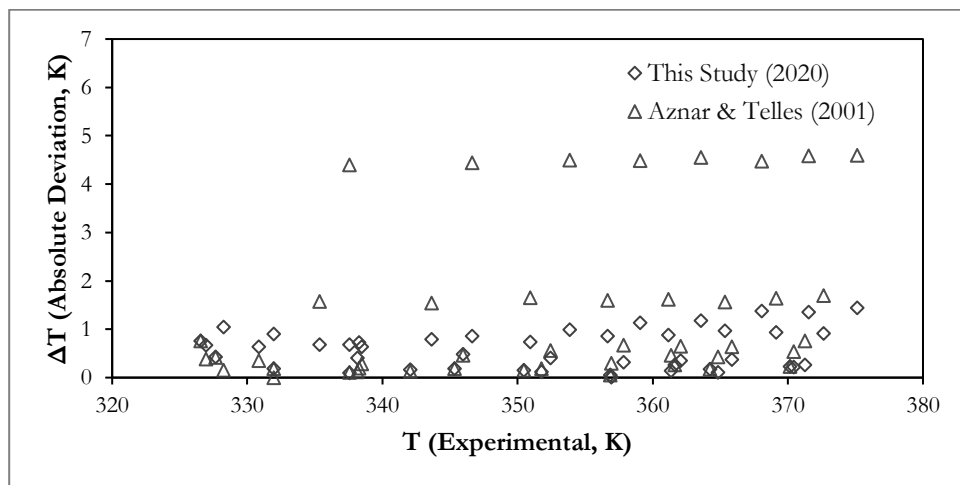


Figure B.1. Residual Plot of the Bubble Points of Water (2) + NaCl (8) System

B.2 Water (2) + KCl (9)

The residual plot for water (2) + KCl (9) system is shown as follows:

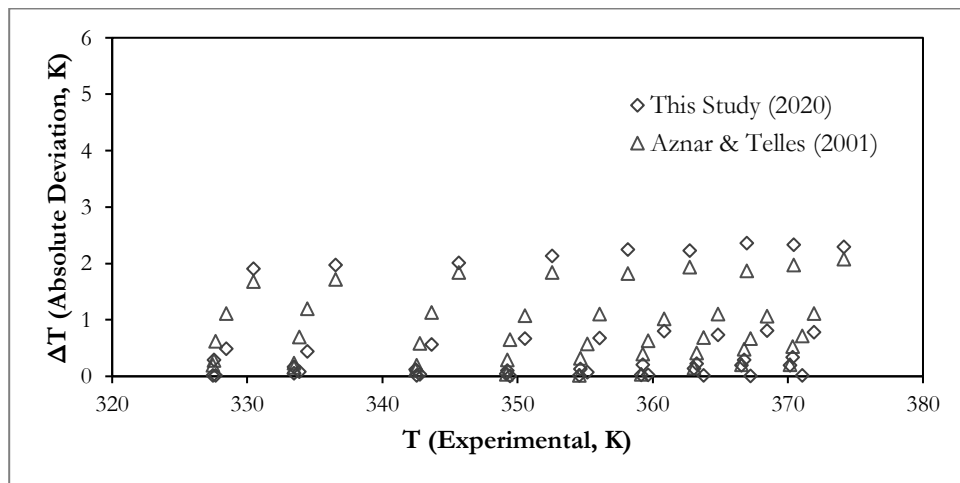


Figure B.2. Residual Plot of the Bubble Points of Water (2) + KCl (9) System



B.3 Ethanol (1) + Glycerol (3) + NaCl (8)

The residual plot for ethanol (1) + glycerol (3) + NaCl (8) system is shown as follows:

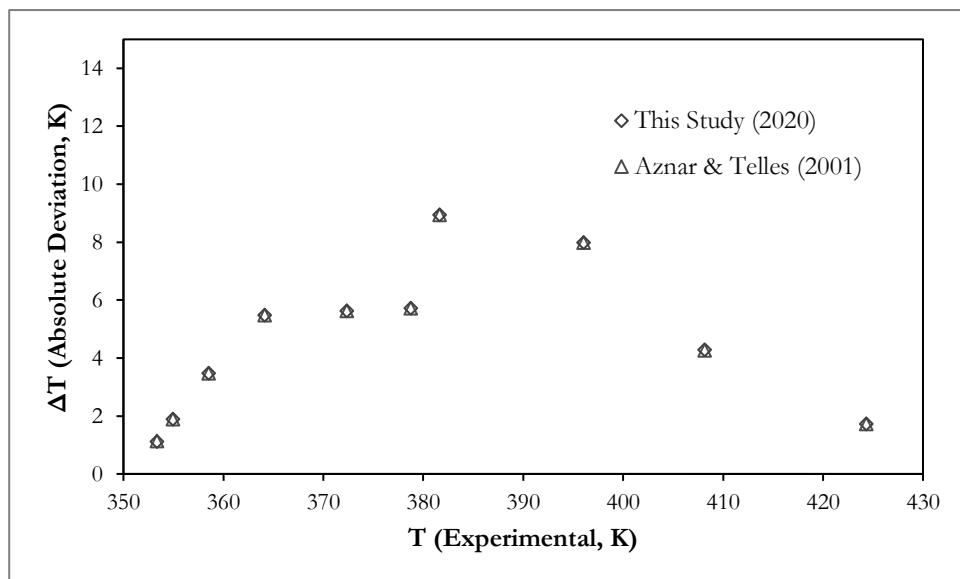


Figure B.3. Residual Plot of the Bubble Points of Ethanol (1) + Glycerol (3) + NaCl (8) System

B.4 Water (2) + Glycerol (3) + NaCl (8)

The residual plot for water (2) + glycerol (3) + NaCl (8) system is shown as follows:

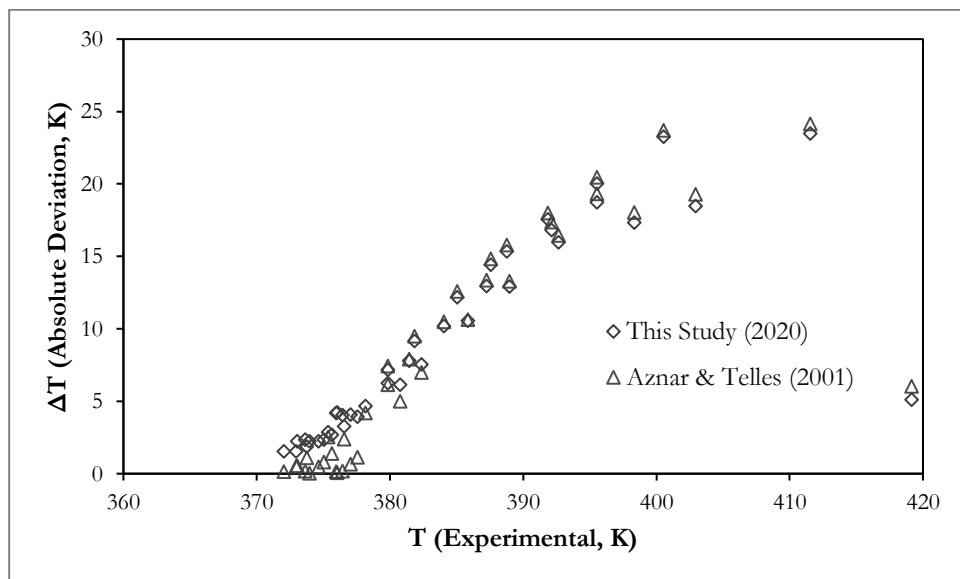


Figure B.4. Residual Plot of the Bubble Points of Water (2) + Glycerol (3) + NaCl (8) System



B.5 Water (2) + Glycerol (3) + KCl (9)

The residual plots for water (2) + glycerol (3) + KCl (9) system is shown as follows:

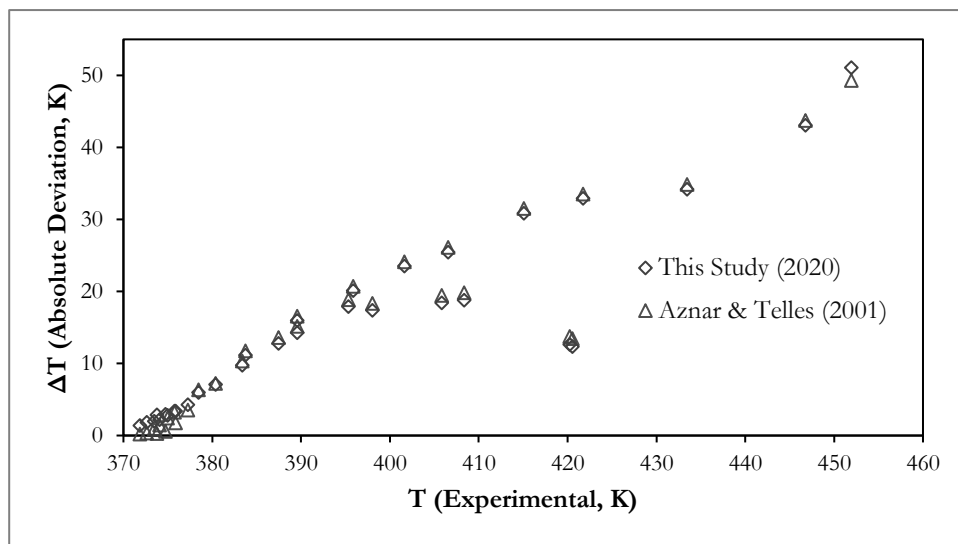


Figure B.5. Residual Plot of the Bubble Points of Water (2) + Glycerol (3) + KCl (9) System

B.6 Ethanol (1) + Water (2) + Glycerol (3) + NaCl (8)

The residual plot for ethanol (1) + water (2) + glycerol (3) + NaCl (8) system is shown as follows:

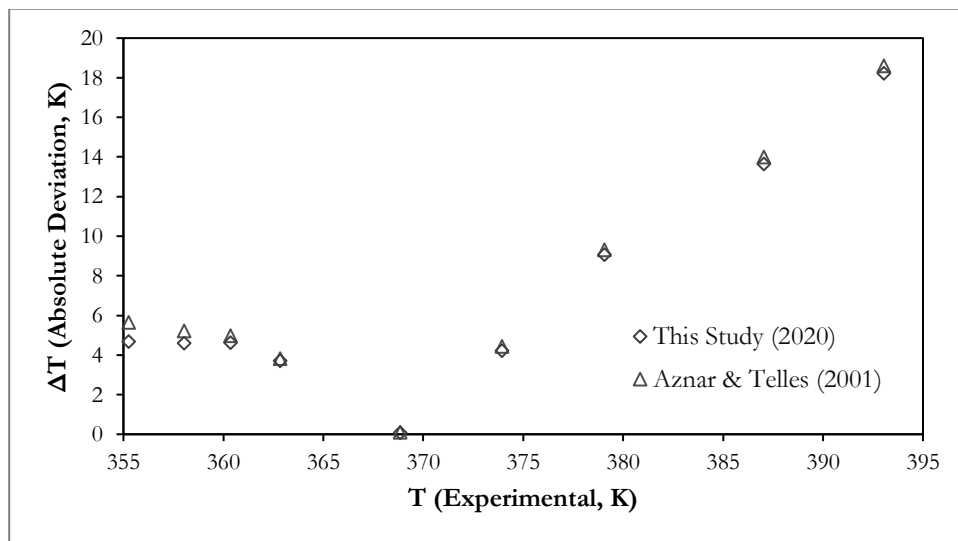


Figure B.6. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + Glycerol (3) + NaCl (8) System



B.7 Ethanol (1) + Water (2) + 1-Butanol (5) + NaCl (8)

The residual plots for ethanol (1) + water (2) + 1-butanol (5) + NaCl (8) system are as follows:

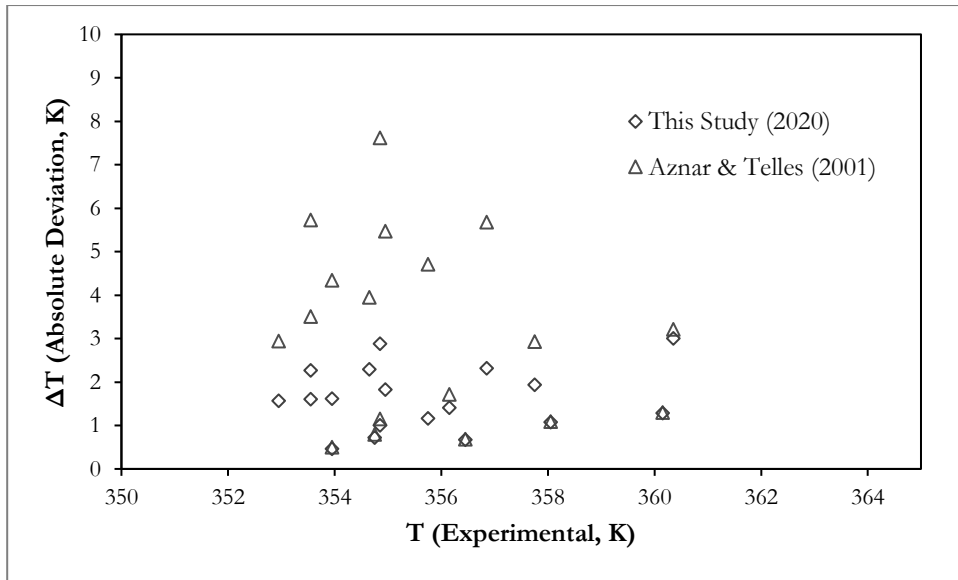


Figure B.7. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 1-Butanol (5) + NaCl (8) System

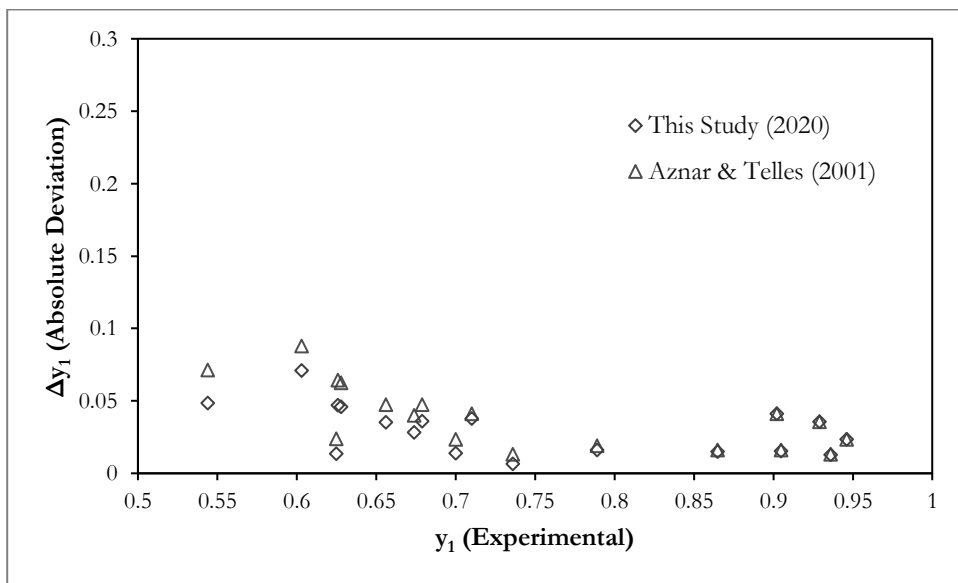


Figure B.8. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Butanol (5) + NaCl (8) System

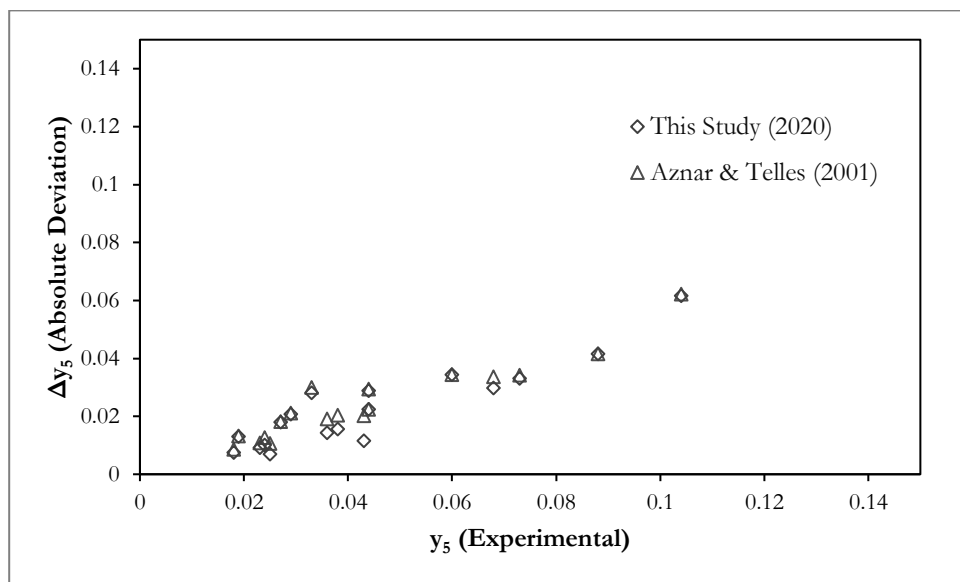


Figure B.9. Residual Plot of the 1-Butanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Butanol (5) + NaCl (8) System

B.8 Ethanol (1) + Water (2) + 1-Butanol (5) + KCl (9)

The residual plots for ethanol (1) + water (2) + 1-butanol (5) + KCl (9) system are as follows:

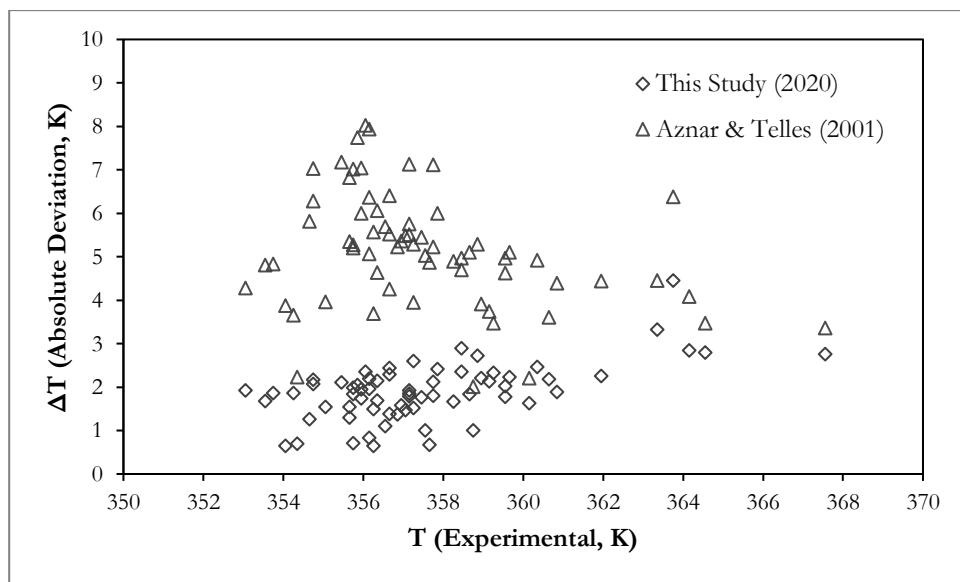


Figure B.10. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 1-Butanol (5) + KCl (9) System

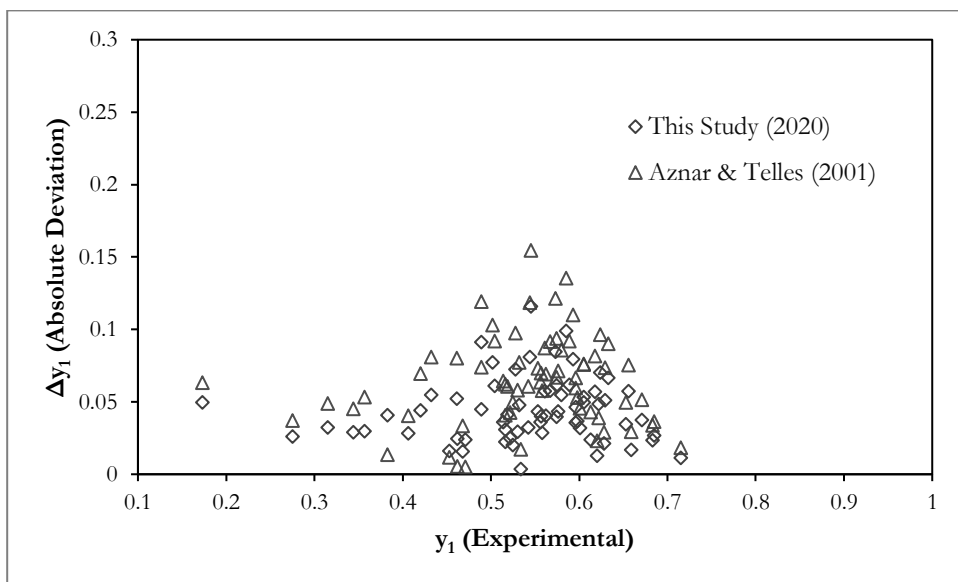


Figure B.11. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Butanol (5) + KCl (9) System

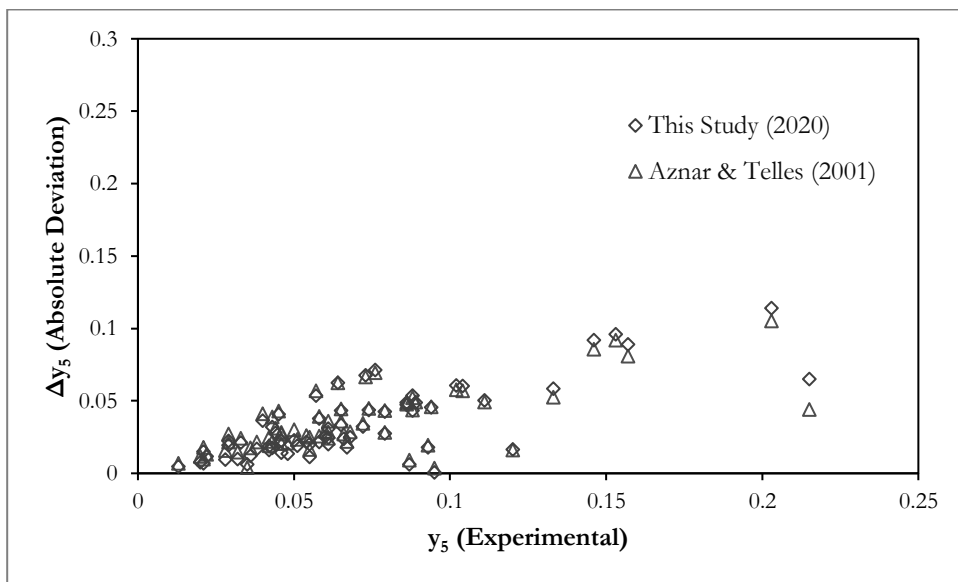


Figure B.12. Residual Plot of the 1-Butanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Butanol (5) + KCl (9) System



B.9 Ethanol (1) + Water (2) + 1-Propanol (6) + NaCl (8)

The residual plots for ethanol (1) + water (2) + 1-propanol (6) + NaCl (8) system are as follows:

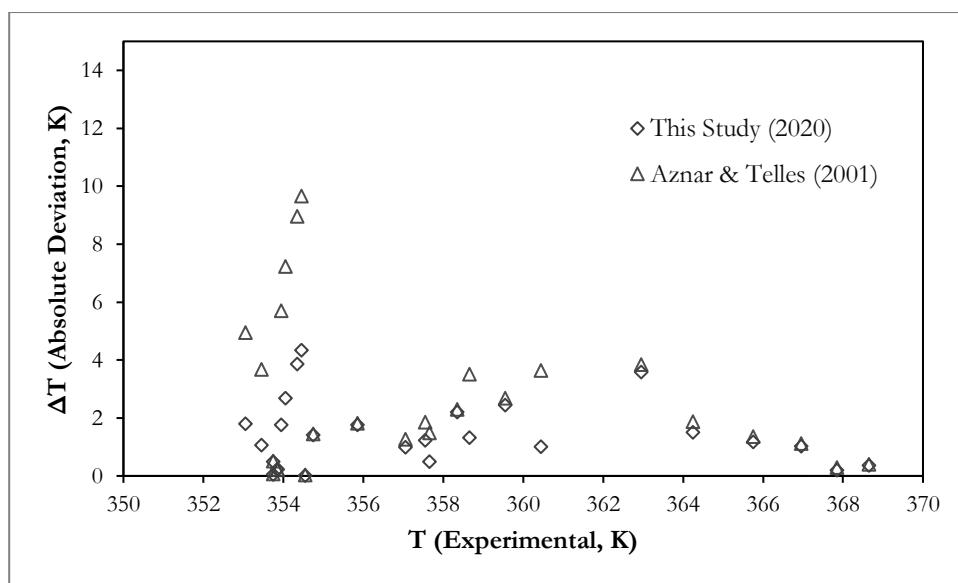


Figure B.13. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 1-Propanol (6) + NaCl (8) System

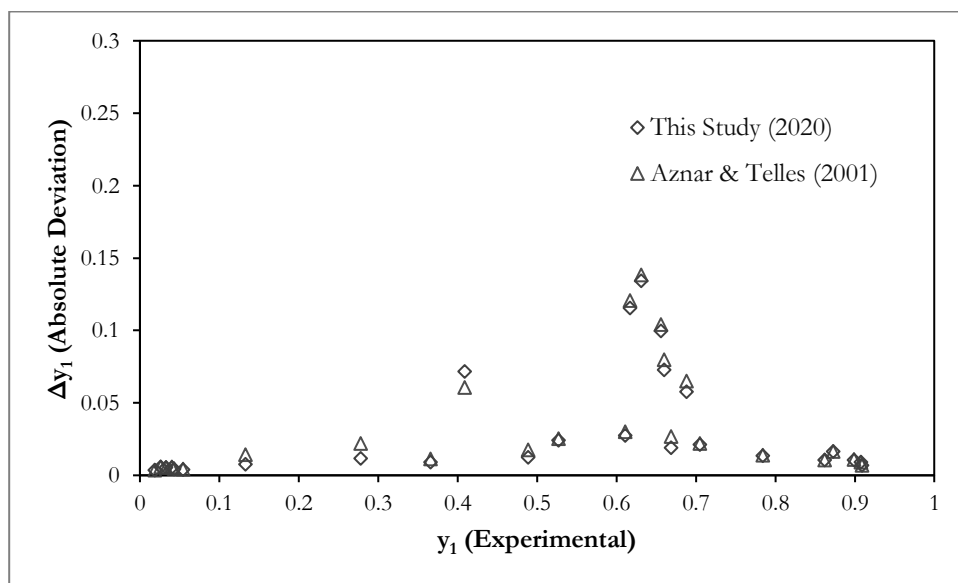


Figure B.14. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Propanol (6) + NaCl (8) System

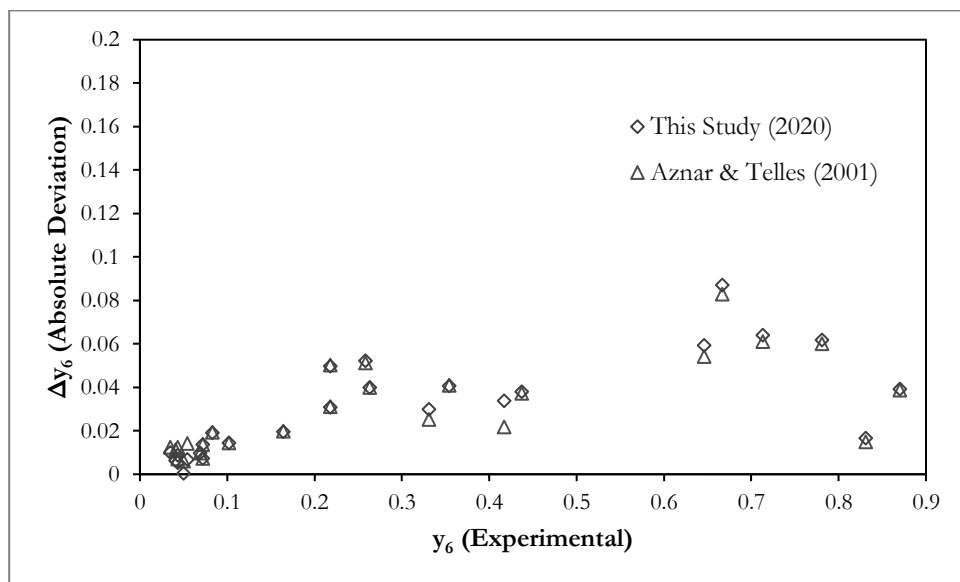


Figure B.15. Residual Plot of the 1-Propanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Propanol (6) + NaCl (8) System

B.10 Ethanol (1) + Water (2) + 1-Propanol (6) + KCl (9)

The residual plots for ethanol (1) + water (2) + 1-propanol (6) + KCl (9) system are as follows:

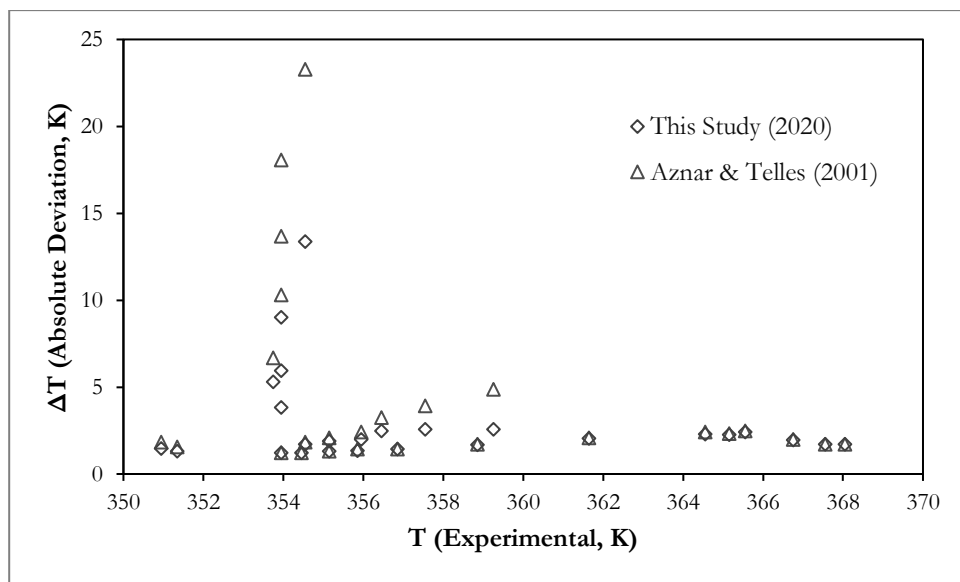


Figure B.16. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 1-Propanol (6) + KCl (9) System

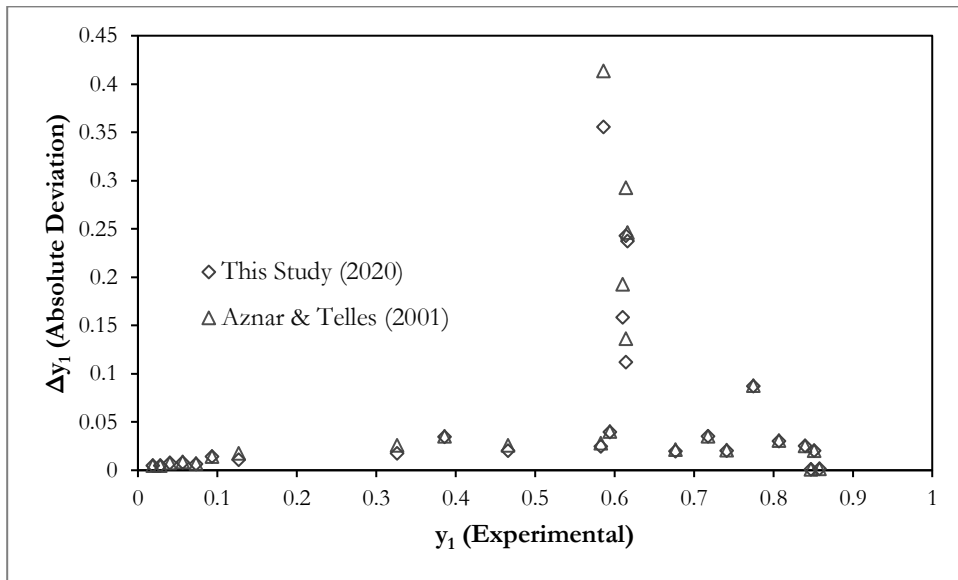


Figure B.17. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Propanol (6) + KCl (9) System

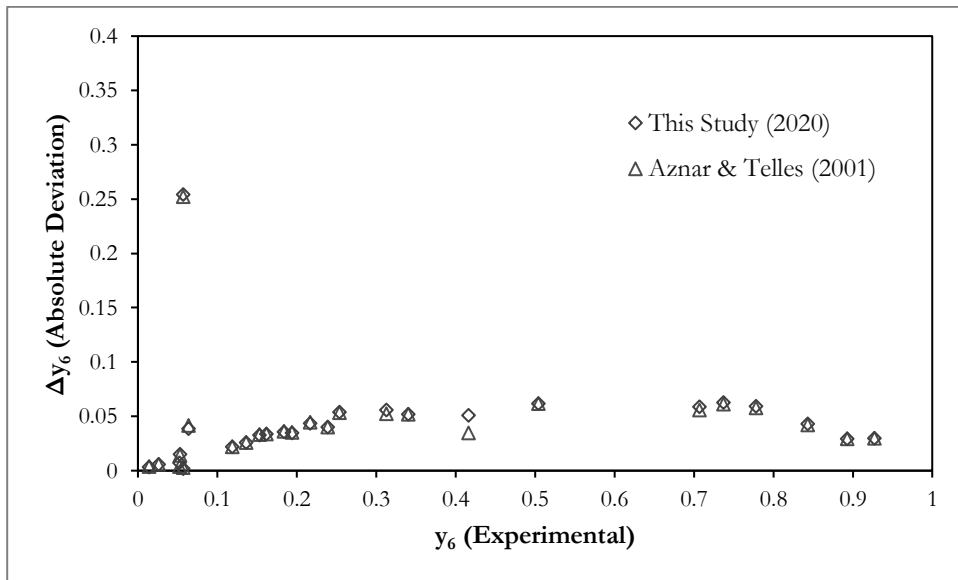


Figure B.18. Residual Plot of the 1-Propanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Propanol (6) + KCl (9) System



B.11 Ethanol (1) + Water (2) + 2-Propanol (7) + NaCl

The residual plots for ethanol (1) + water (2) + 2-propanol (7) + NaCl system are as follows:

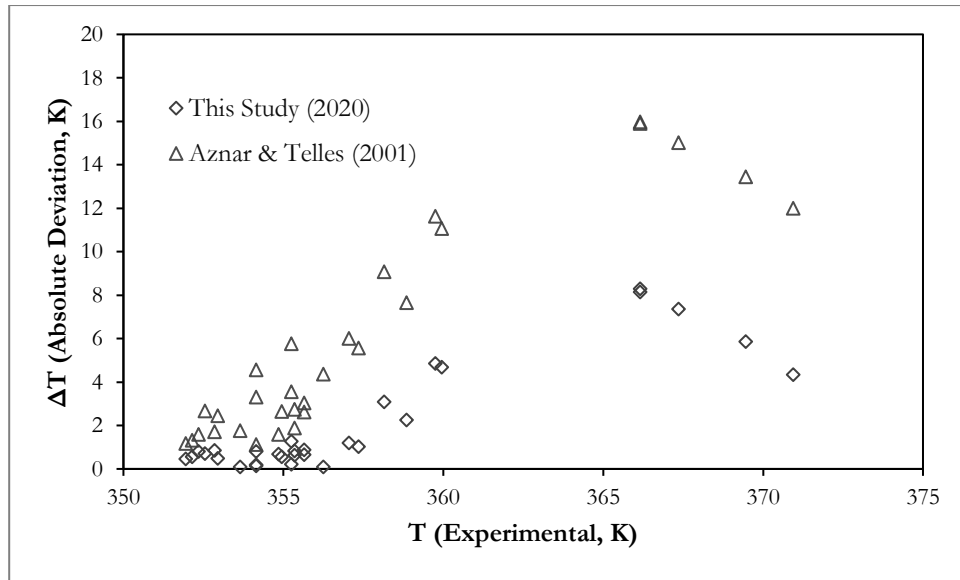


Figure B.19. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 2-Propanol (7) + NaCl (8) System

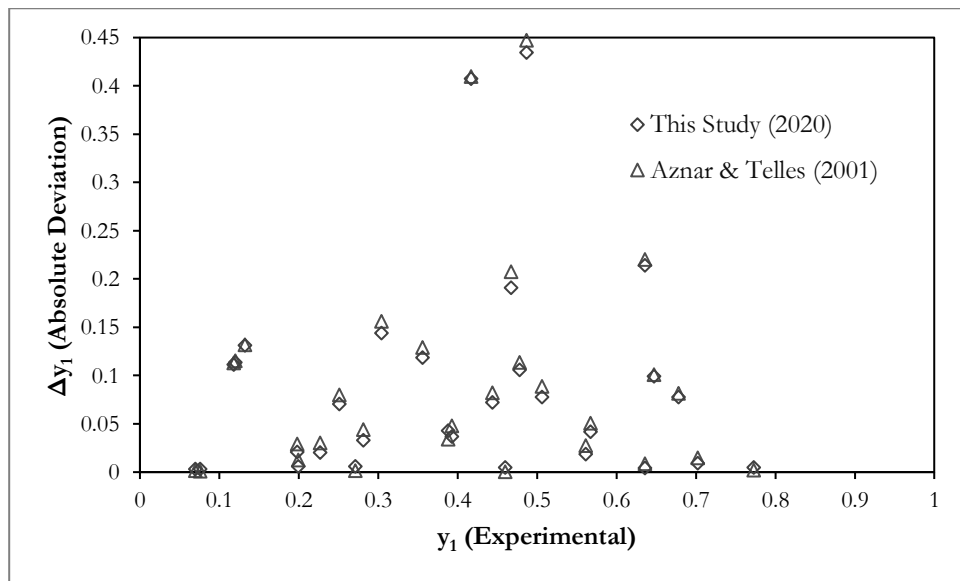


Figure B.20. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 2-Propanol (7) + NaCl (8) System

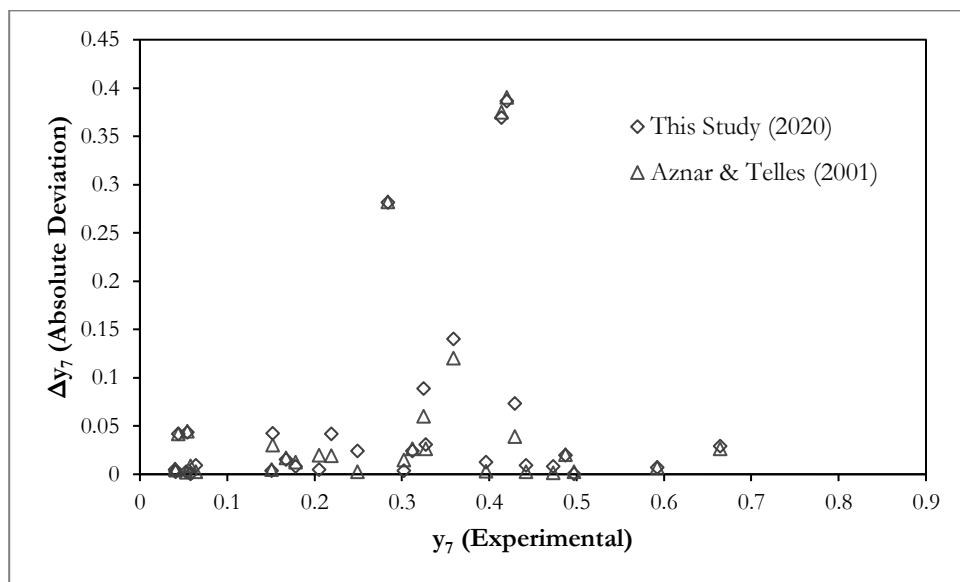


Figure B.21. Residual Plot of the 2-Propanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 2-Propanol (7) + NaCl (8) System

B.12 Ethanol (1) + Water (2) + 2-Propanol (7) + KCl (9)

The residual plots for ethanol (1) + water (2) + 2-propanol (7) + KCl (9) system are as follows:

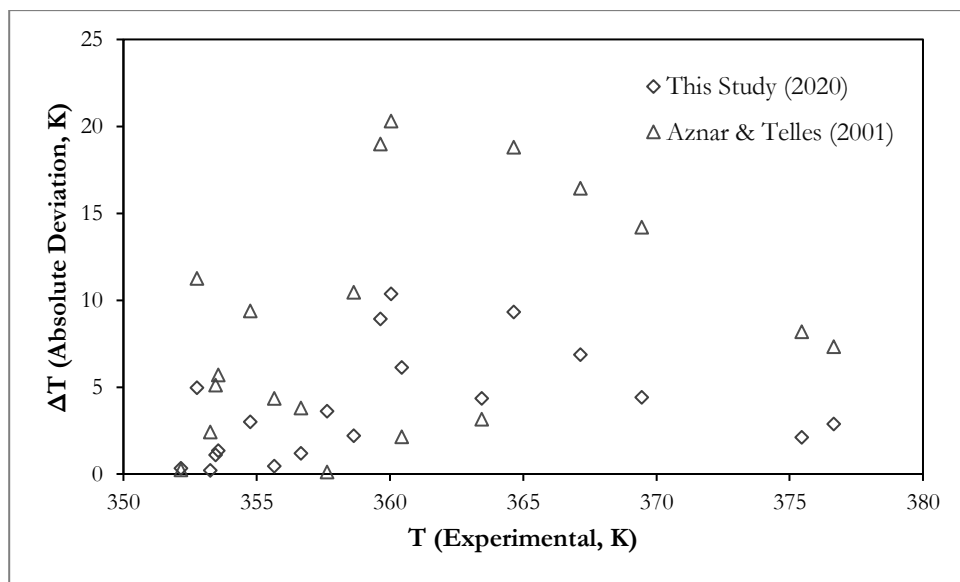


Figure B.22. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 2-Propanol (7) + KCl (9) System

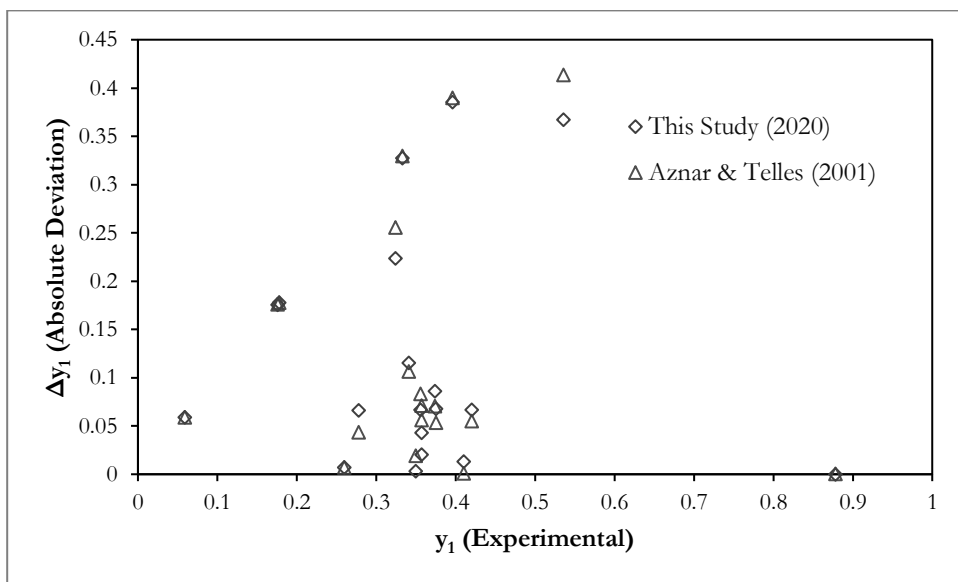


Figure B.23. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 2-Propanol (7) + KCl (9) System

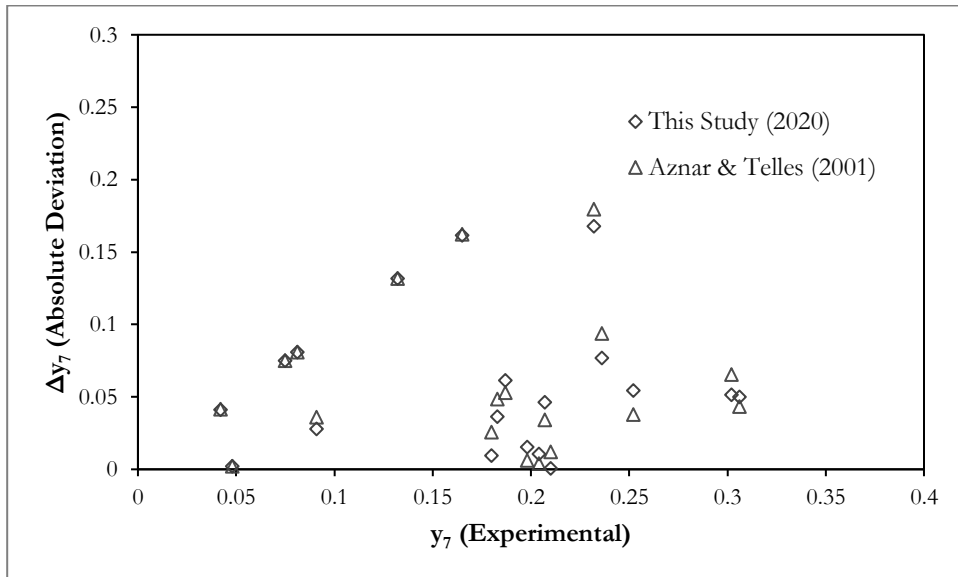


Figure B.24. Residual Plot of the 2-Propanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 2-Propanol (7) + KCl (9) System



B.13 Ethanol (1) + Glycerol (3)

The residual plot for ethanol (1) + glycerol (3) system is shown as follows:

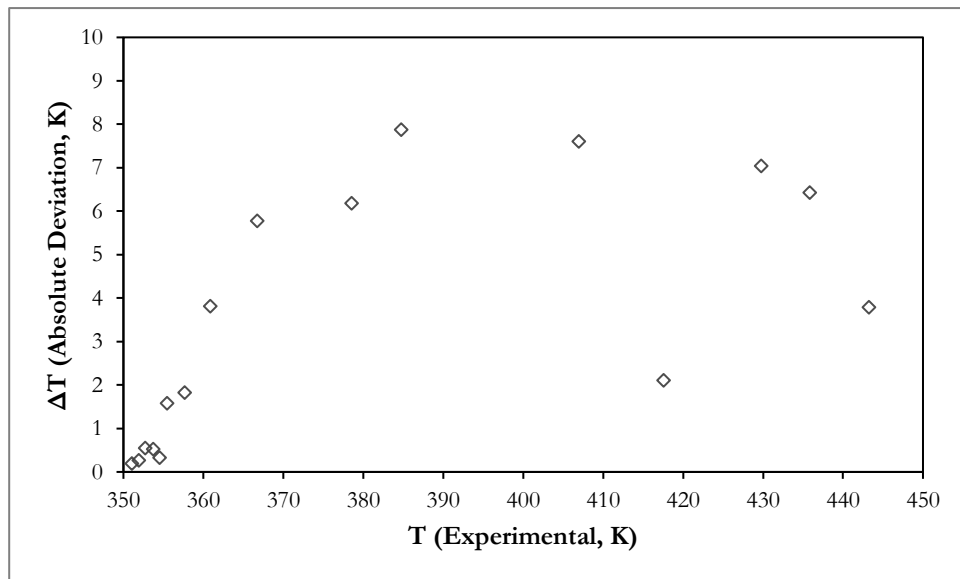


Figure B.25. Residual Plot of the Bubble Points of Ethanol (1) + Glycerol (3) System

B.14 Ethanol (1) + Water (2) + 1-Butanol (5)

The residual plots for ethanol (1) + water (2) + 1-butanol (5) system are as follows:

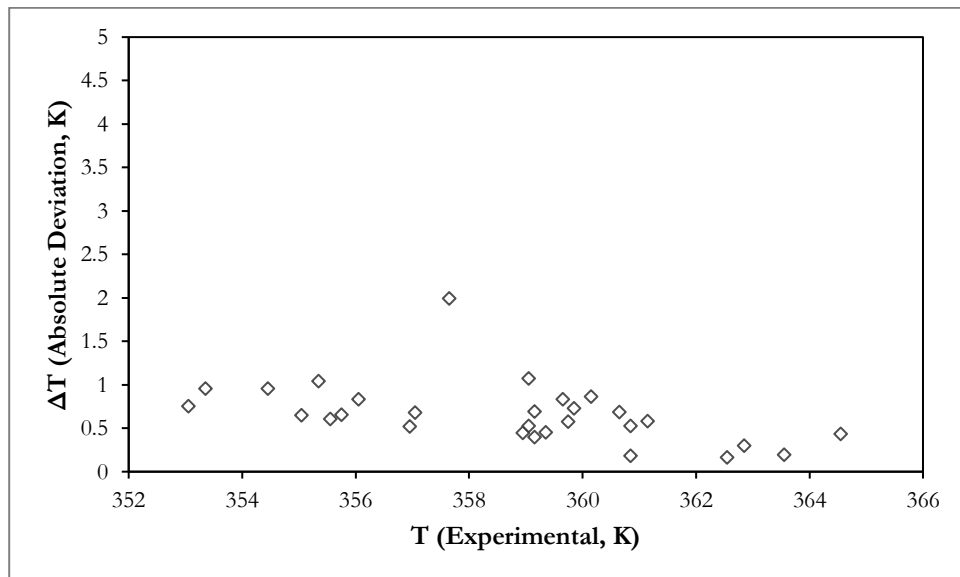


Figure B.26. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 1-Butanol (5) System

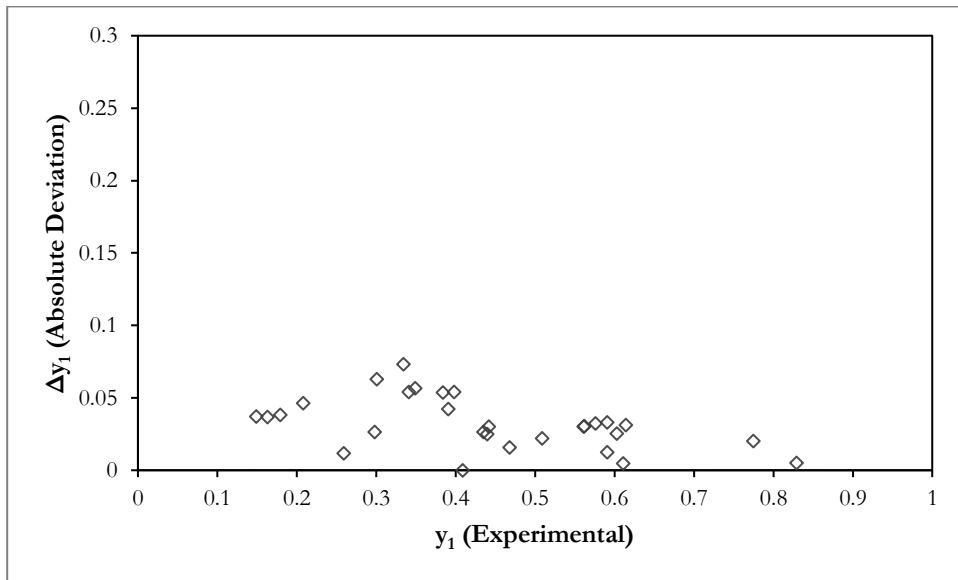


Figure B.27. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Butanol (5) System

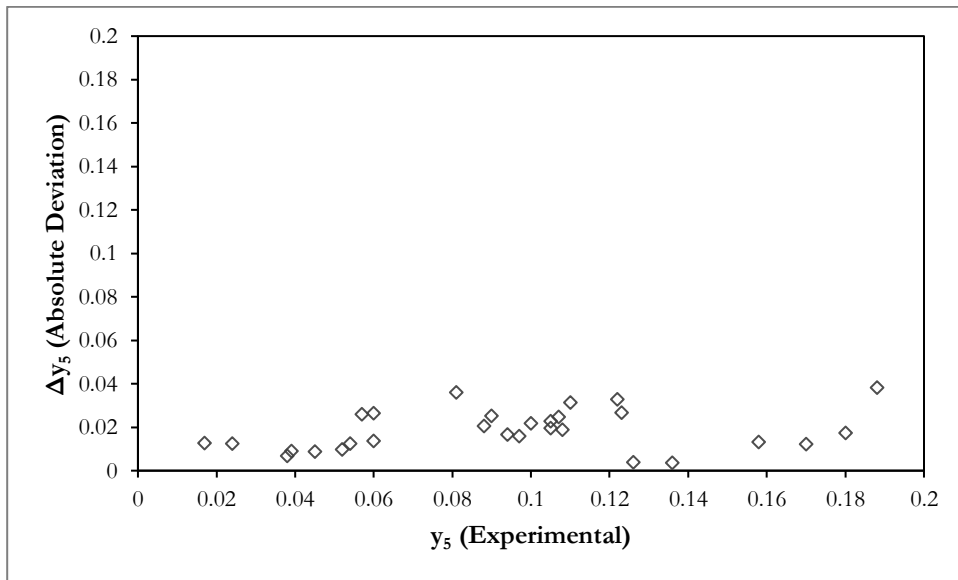


Figure B.28. Residual Plot of the 1-Butanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Butanol (5) System



B.15 Ethanol (1) + Water (2) + 1-Propanol (6)

The residual plots for ethanol (1) + water (2) + 1-propanol (6) system are as follows:

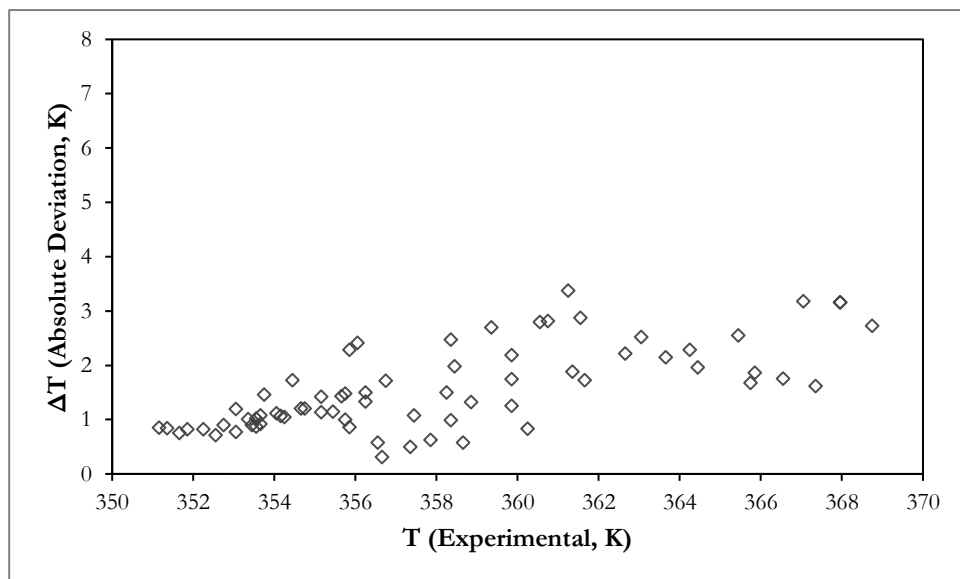


Figure B.29. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 1-Propanol (6) System

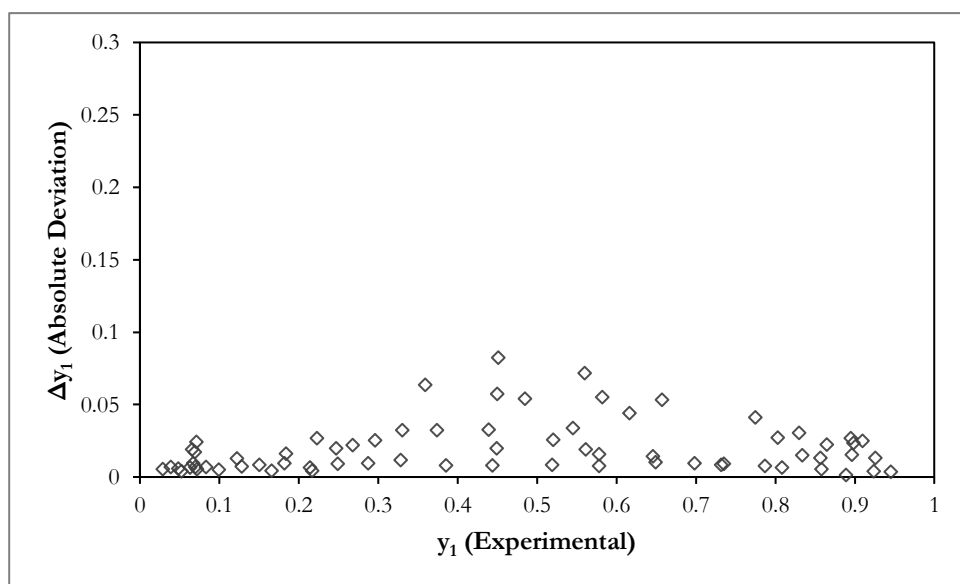


Figure B.30. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Propanol (6) System

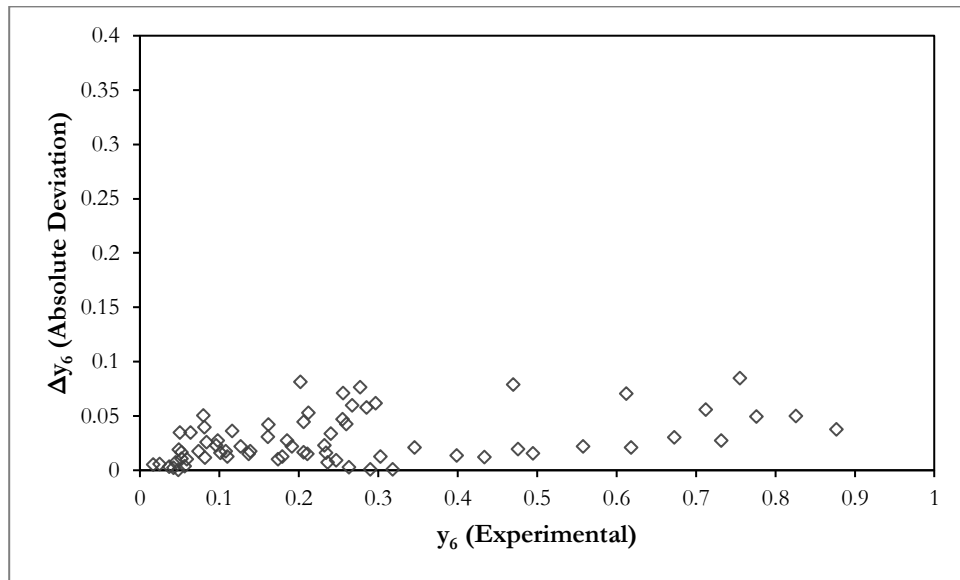


Figure B.31. Residual Plot of the 1-Propanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 1-Propanol (6) System

B.16 Ethanol (1) + Water (2) + 2-Propanol (7)

The residual plots for ethanol (1) + water (2) + 2-propanol (7) system are as follows:

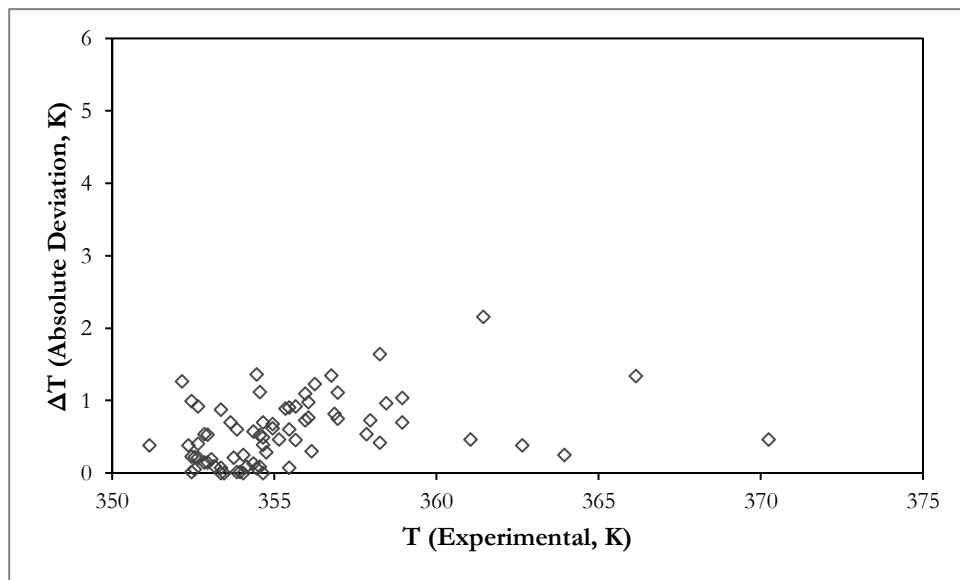


Figure B.32. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + 2-Propanol (7) System

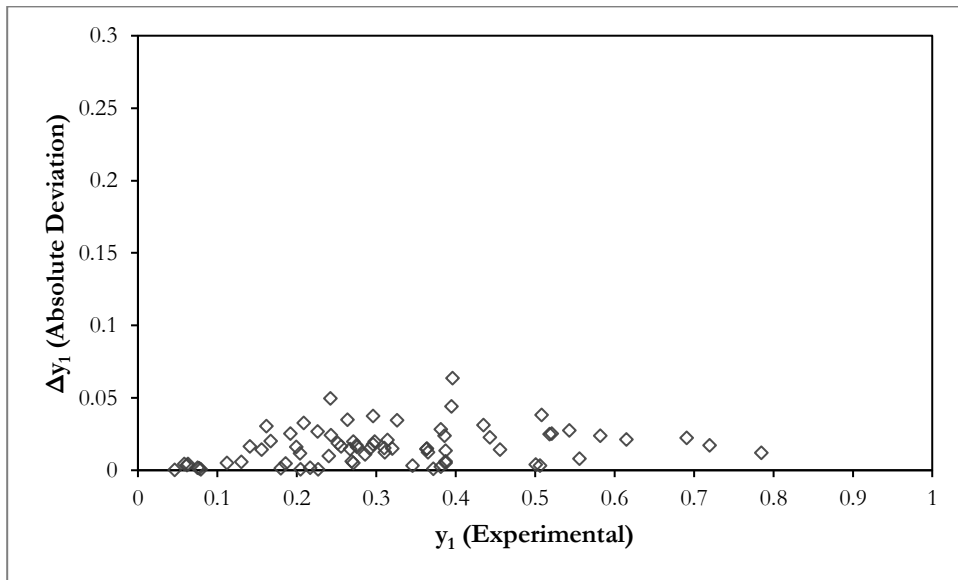


Figure B.33. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 2-Propanol (7) System

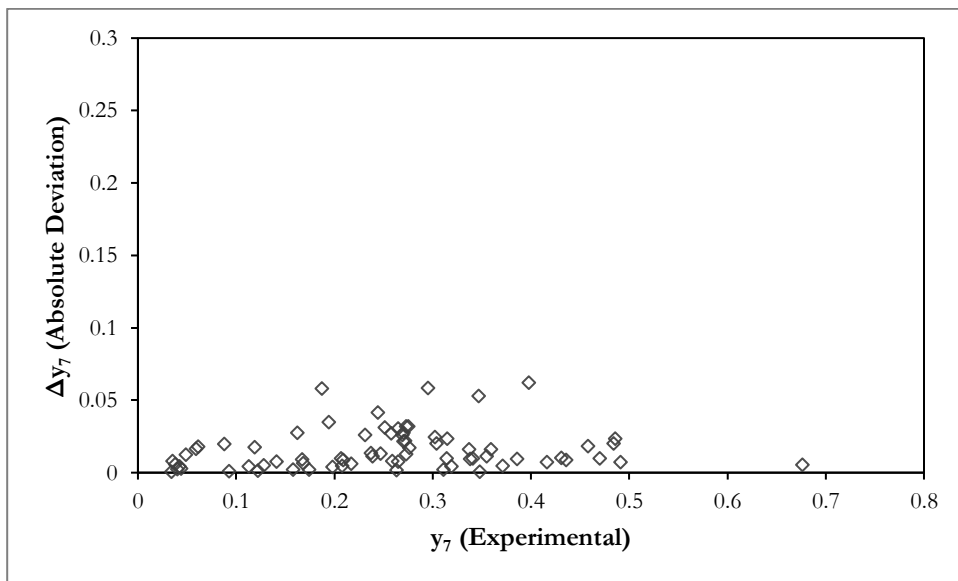


Figure B.34. Residual Plot of the 2-Propanol Vapor Mole Fractions of Ethanol (1) + Water (2) + 2-Propanol (7) System



B.17 Ethanol (1) + Water (2) + Glycerol (3)

The residual plots for ethanol (1) + water (2) + glycerol (3) system are as follows:

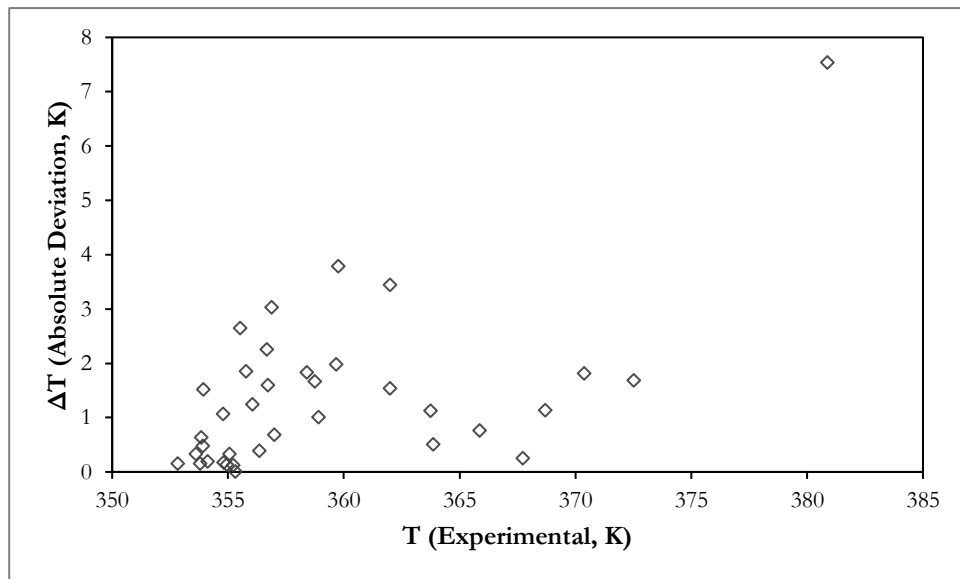


Figure B.35. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + Glycerol (3) System

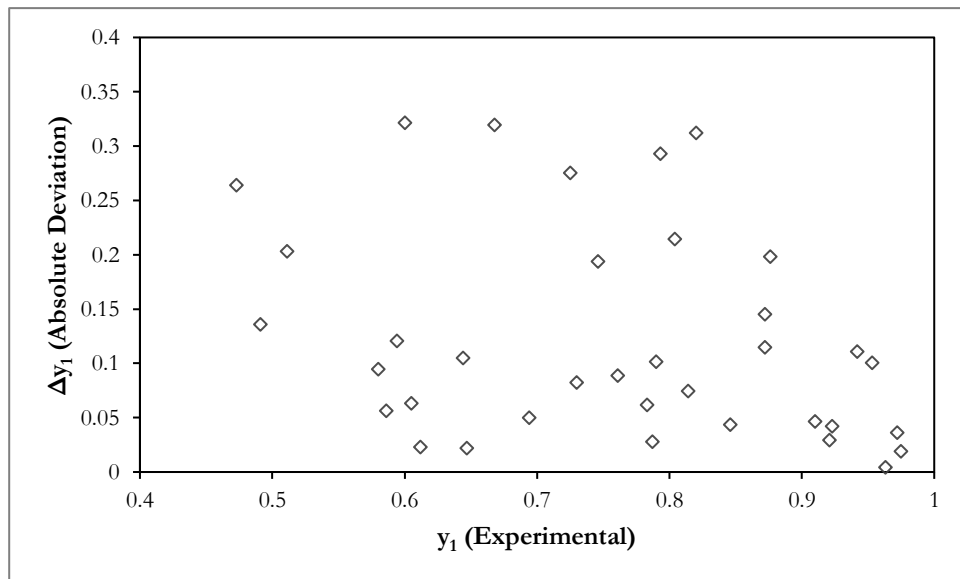


Figure B.36. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + Glycerol (3) System



B.18 Ethanol (1) + Water (2) + Ethylene Glycol (4)

The residual plots for ethanol (1) + water (2) + ethylene glycol (4) system are as follows:

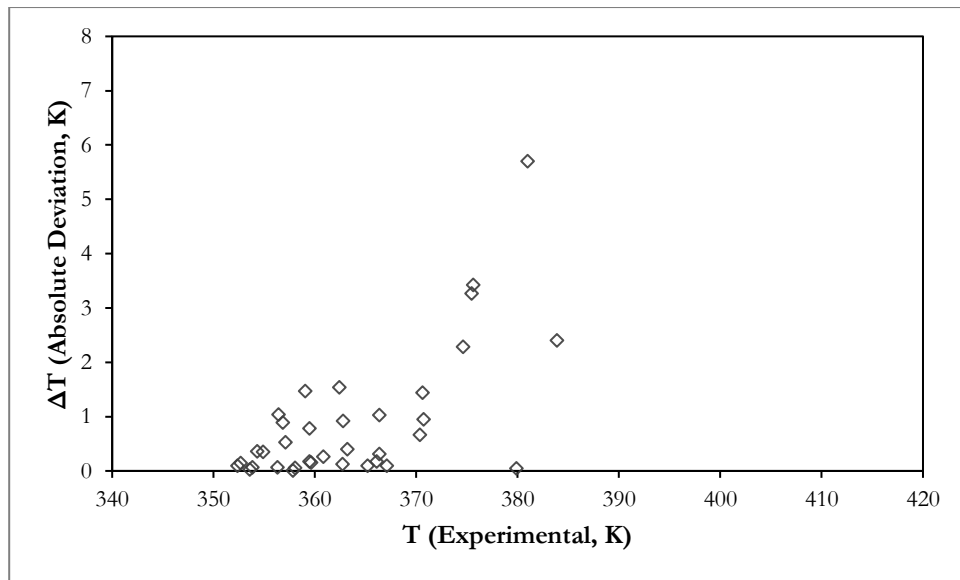


Figure B.37. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + Ethylene Glycol (4) System

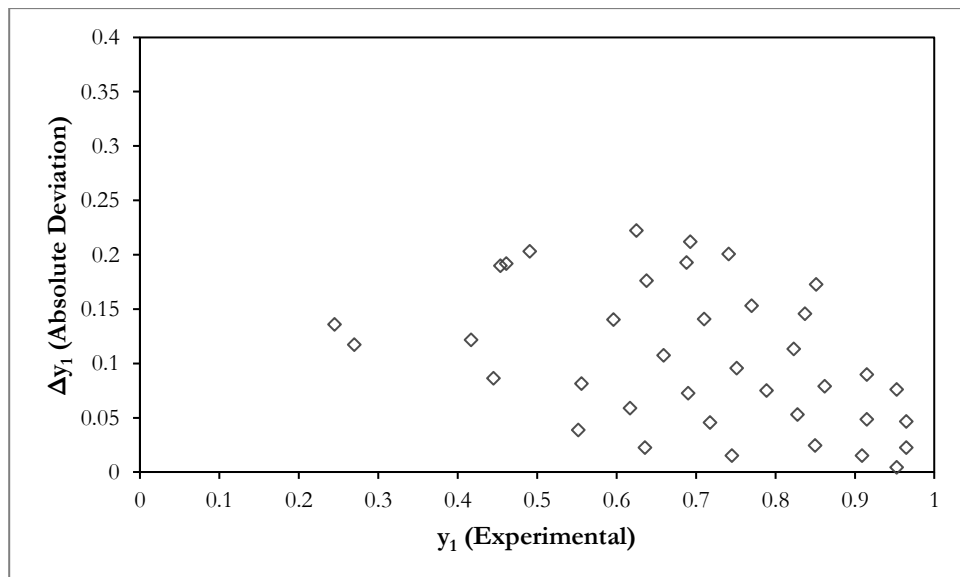


Figure B.38. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + Ethylene Glycol (4) System



B.19 Ethanol (1) + Water (2) + TRIS (10)

The residual plots for ethanol (1) + water (2) + TRIS (10) system are as follows:

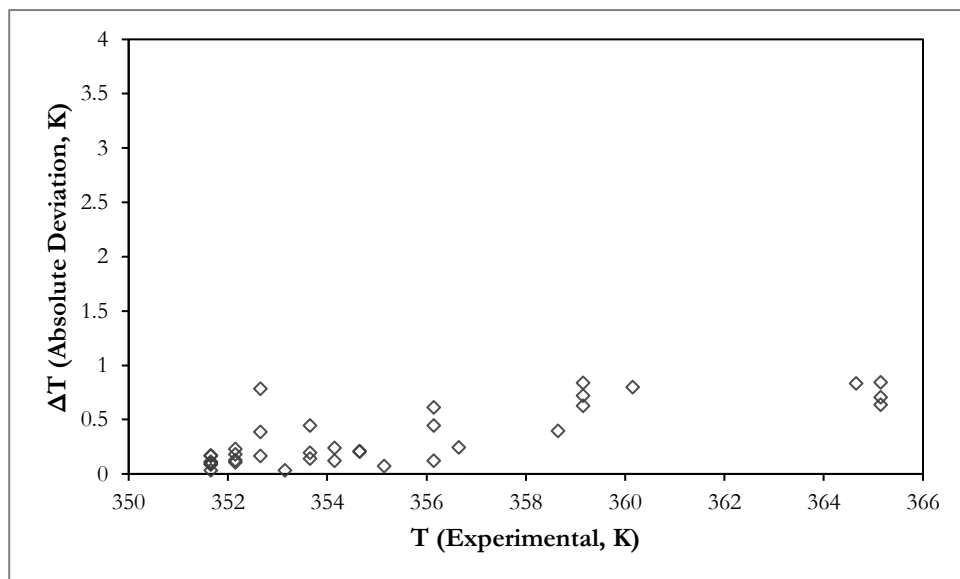


Figure B.39. Residual Plot of the Bubble Points of Ethanol (1) + Water (2) + TRIS (10) System

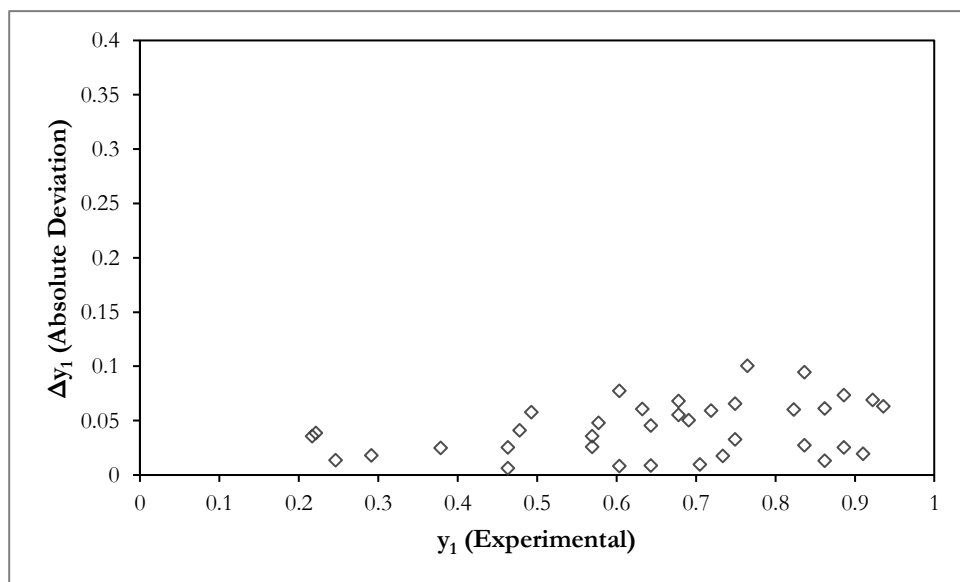


Figure B.40. Residual Plot of the Ethanol Vapor Mole Fractions of Ethanol (1) + Water (2) + TRIS (10) System