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9 Apêndice

9.1. Difractogramas indicando o respectivo ajuste Rietveld.

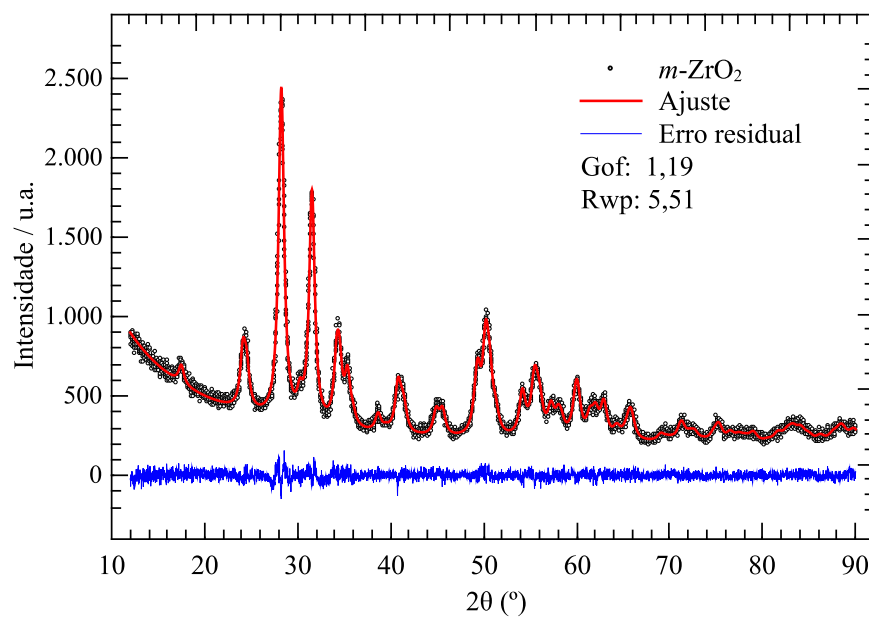


Figura A1. Difractograma da amostra $m\text{-ZrO}_2$ e ajuste pelo método de *Rietveld*

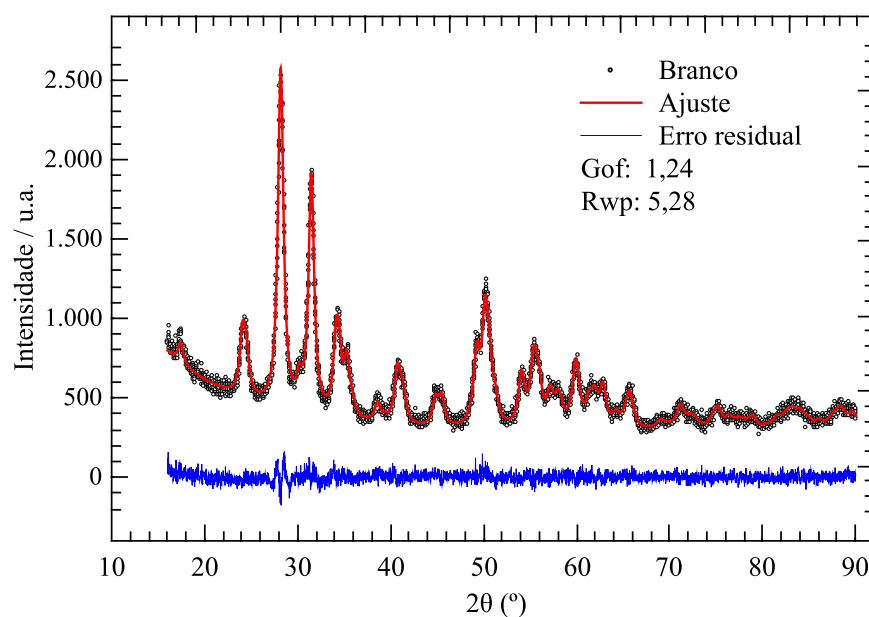


Figura A2. Difractograma da amostra *branco* e ajuste da fase $m\text{-ZrO}_2$ pelo método de *Rietveld*

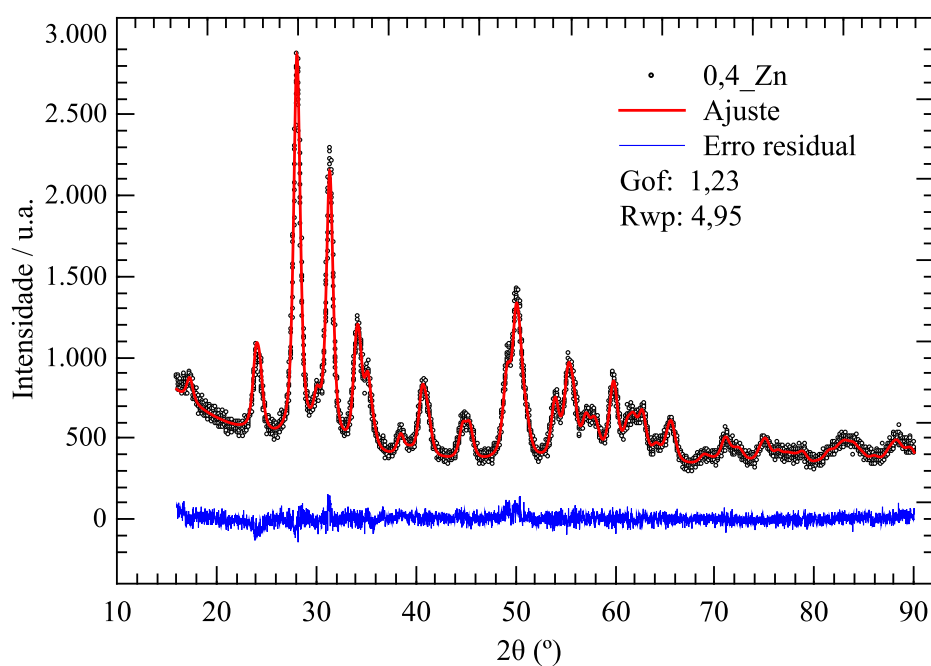


Figura A3. Difractograma da amostra 0,4_Zn e ajuste da fase $m\text{-ZrO}_2$ pelo método de *Rietveld*

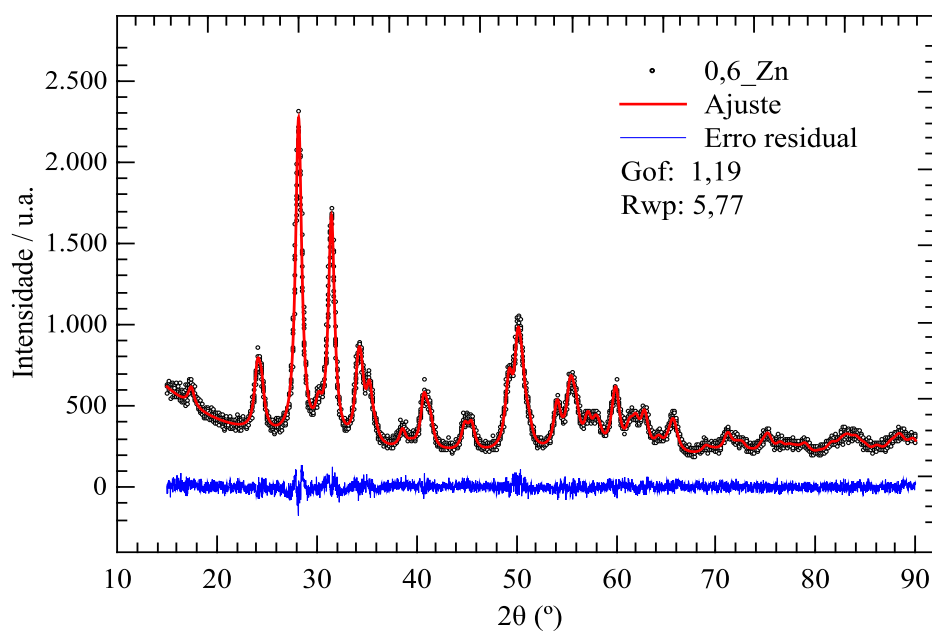


Figura A4. Difractograma da amostra 0,6_Zn e ajuste da fase $m\text{-ZrO}_2$ pelo método de *Rietveld*

9.2. Espectros XPS indicando valores de energia de ligação do zinco

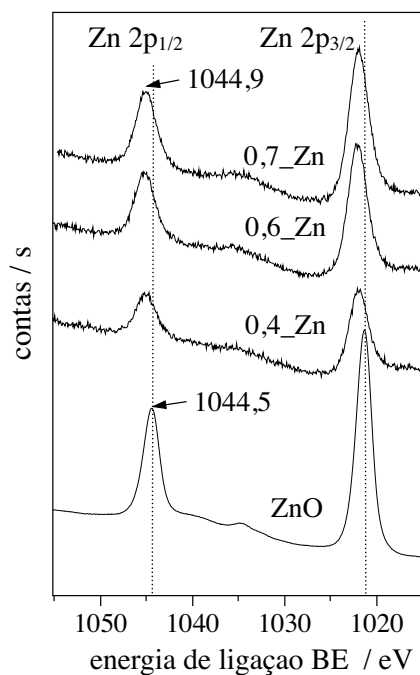


Figura A5. Energias de ligação Zn 2p_{1/2} e Zn 2p_{3/2} dos óxidos mistos sintetizados e de uma amostra comercial de ZnO.

9.3. Deconvolução dos espectros de TPD-CO₂.

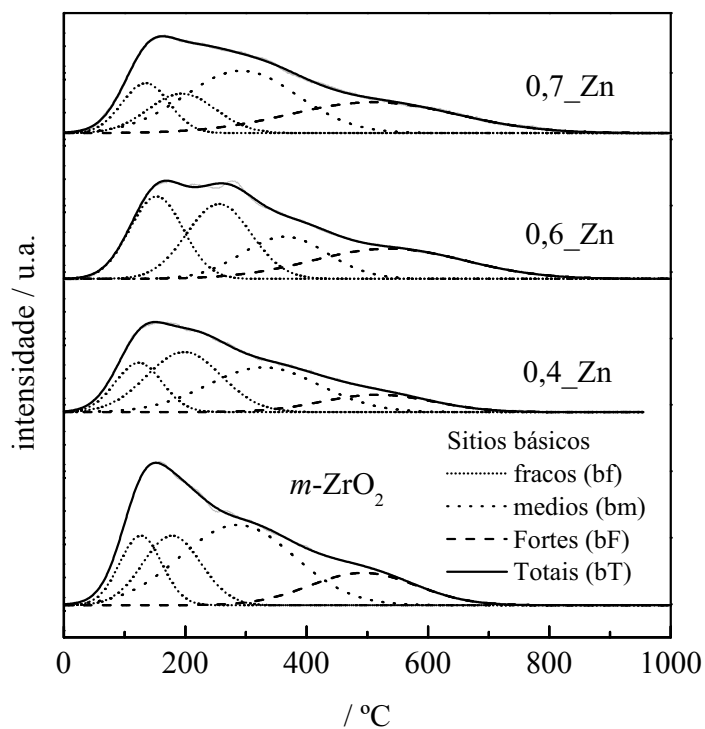


Figura A6. Deconvolução dos espectros de TPD-CO₂ indicando densidade de sítios básicos.

9.4. Deconvolução dos espectros de TPD-NH₃.

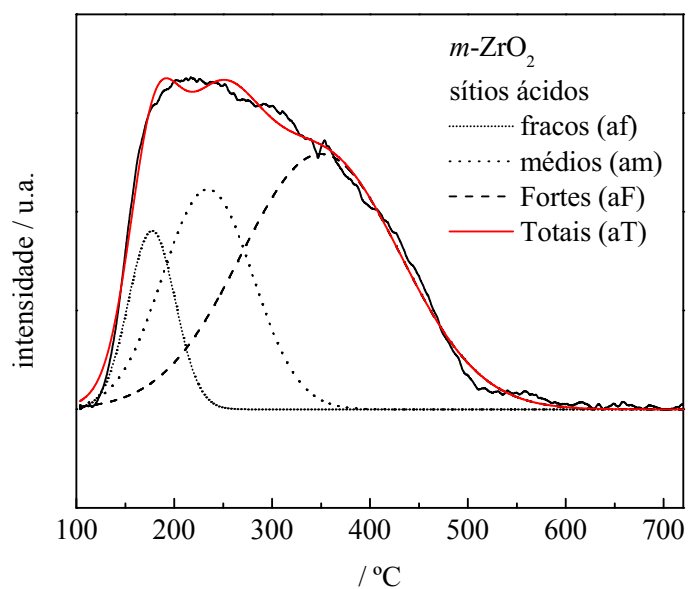


Figura A7. Deconvolução dos espectros de TPD-NH₃ realizado na amostra *m*-ZrO₂, indicando densidade de sítios ácidos.

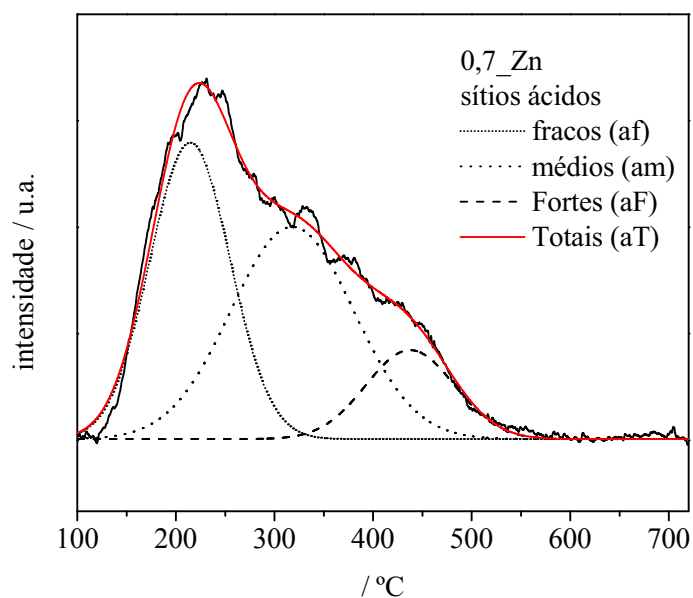


Figura A8. Deconvolução dos espectros de TPD-NH₃ realizado no óxido misto 0,7_Zn, indicando densidade de sítios ácidos.