

Supplementary File

Effect of Recycled Concrete Aggregate Addition on the Asphalt Mixtures Performance: ITZ Area, Microstructure, and Chemical Analysis Perspectives

Hanaa Khaleel Alwan Al-Bayati ^{1,*}, Waleed Jadaa ² and Susan L. Tighe ^{3,4}

¹ Department of Civil Engineering, College of Engineering, Tikrit University, Tikrit 34001, Iraq

² Center for Energy and Environmental Sustainability (CEES), Prairie View A&M University, Prairie View, TX 77446, USA; wajadaa@pvamu.edu

³ Provost and Vice-President Academic, Norman W. McLeod Professor of Sustainable Pavement Engineering, McMaster University, Hamilton, ON L8S 4L8, Canada; tighes1@mcmaster.ca or sltighe@uwaterloo.ca

⁴ Adjunct Professor, Civil and Environmental Engineering, University of Waterloo, Waterloo, ON N2L 3G1, Canada

* Correspondence: dr.hanaa.khaleel@tu.edu.iq

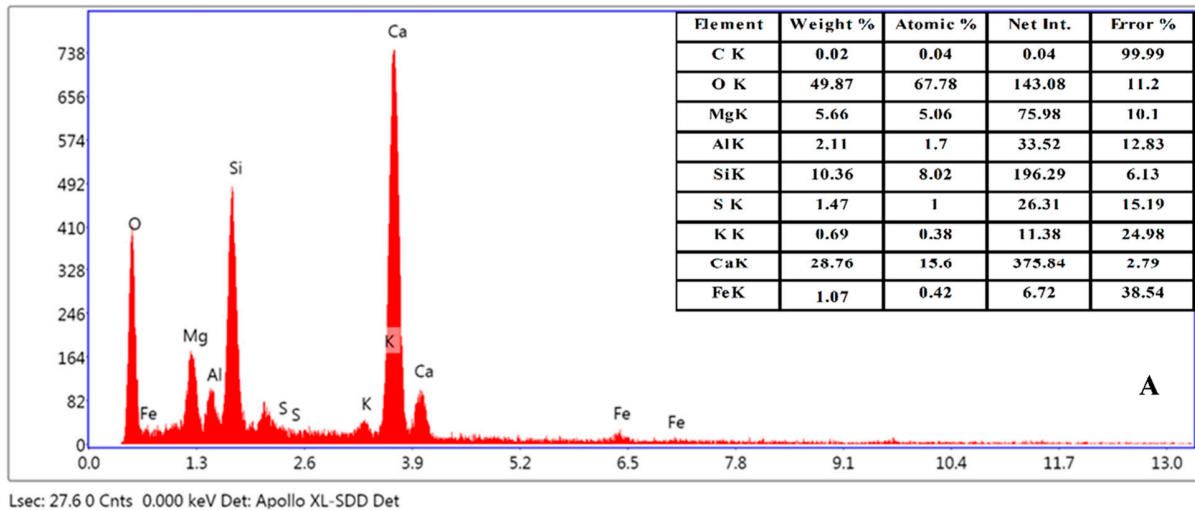


Figure S1A: EDAX analysis of untreated CRCA.

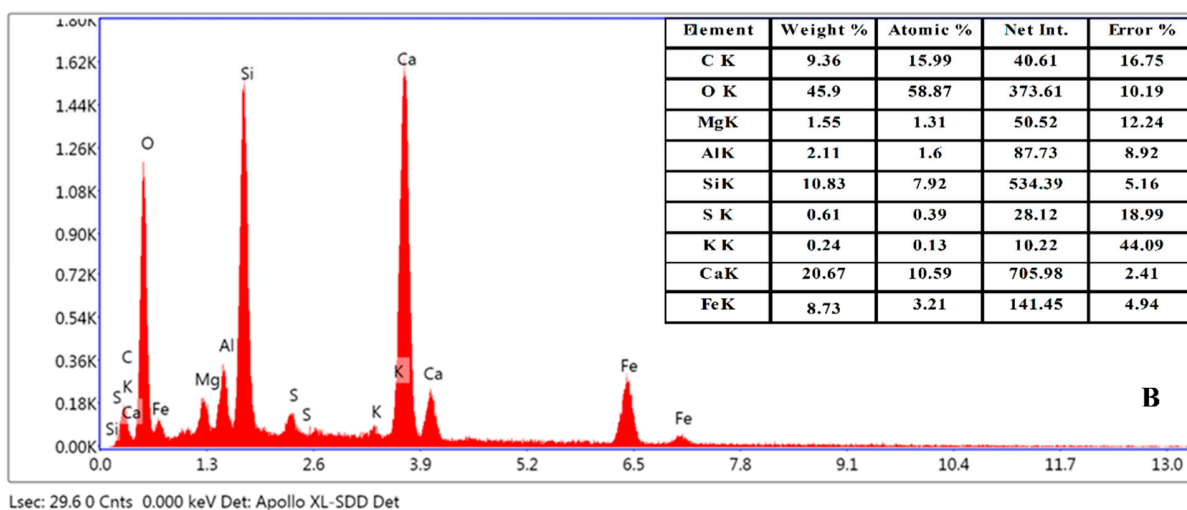


Figure S1B: EDAX analysis of treated CRCA with heat treatment at 250°C.

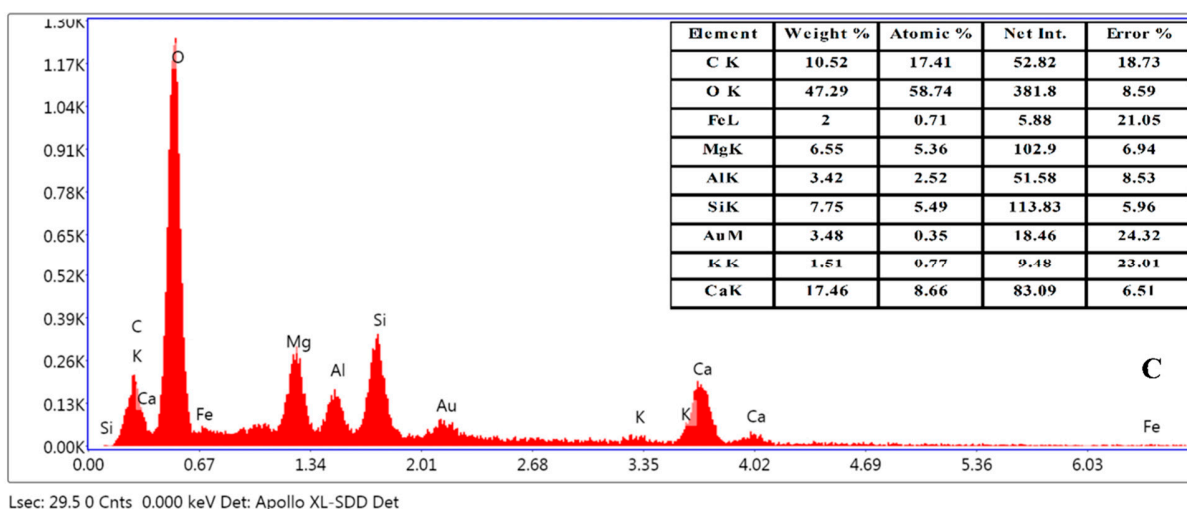
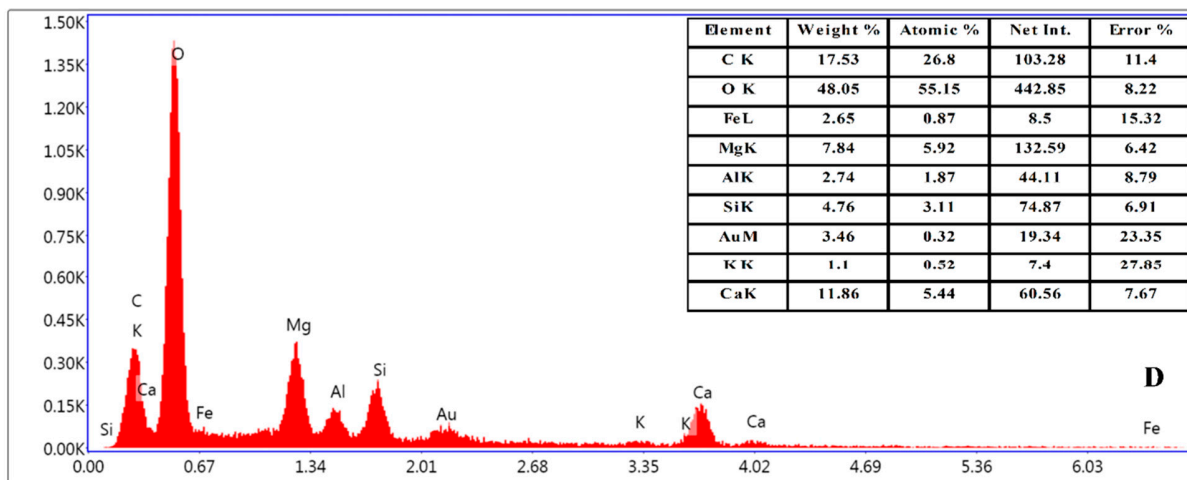
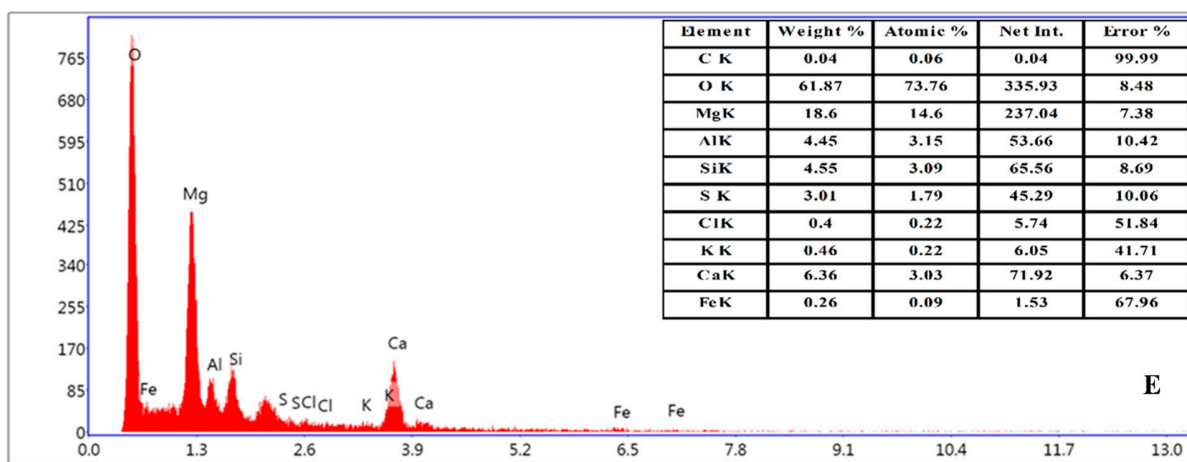


Figure S1C: EDAX analysis of treated CRCA with heat treatment at 350°C.



Lsec: 29.6 0 Cnts 0.000 keV Det: Apollo XL-SDD Det

Figure S1D: EDAX analysis of treated CRCA with heat treatment at 500°C.



Lsec: 24.4 0 Cnts 0.000 keV Det: Apollo XL-SDD Det

Figure S1E: EDAX analysis of treated CRCA with HCl acid.

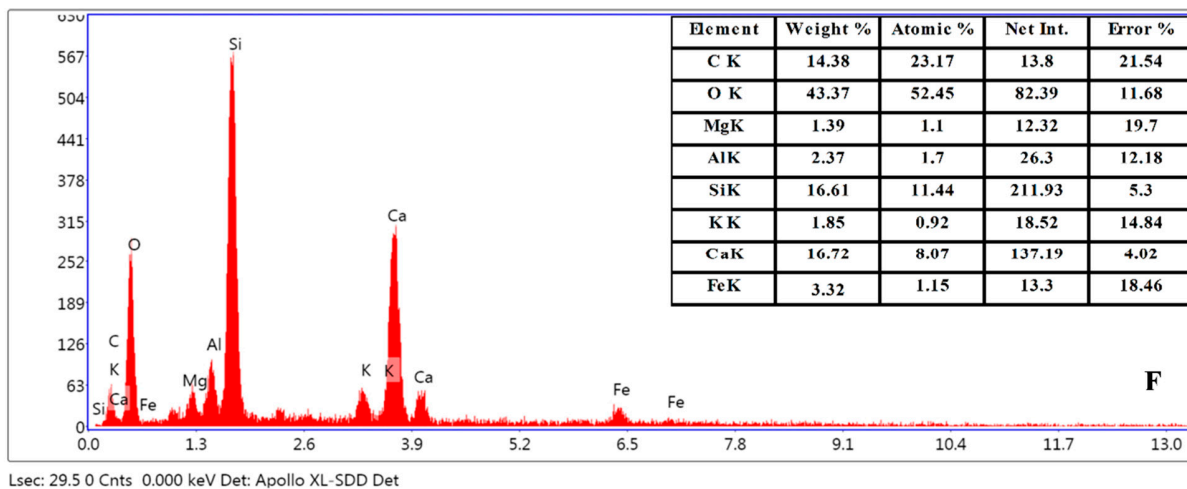


Figure S1F: EDAX analysis of treated CRCA with C₂H₄O₂ acid.

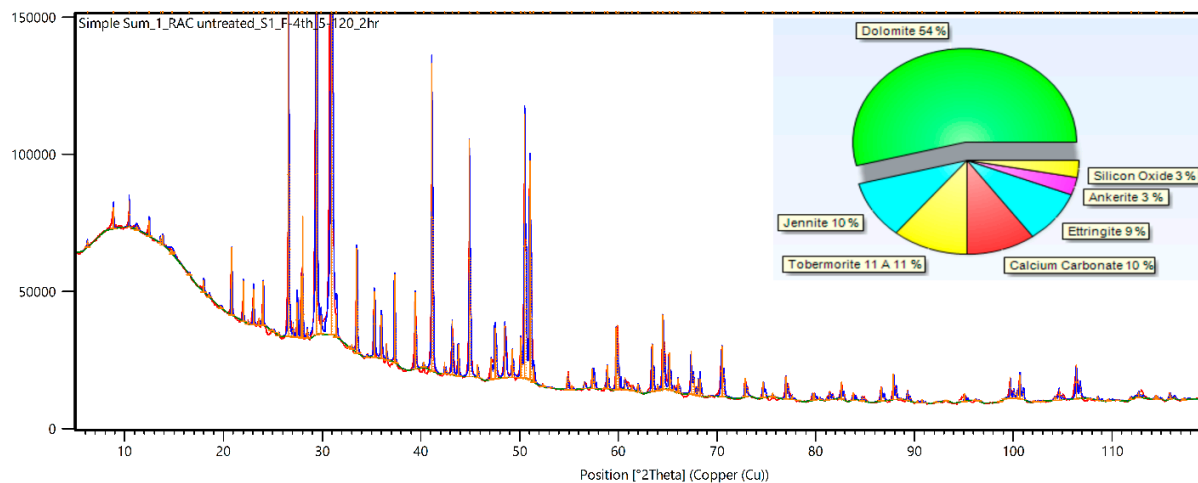


Figure S2A: XRD analysis of untreated CRCA.

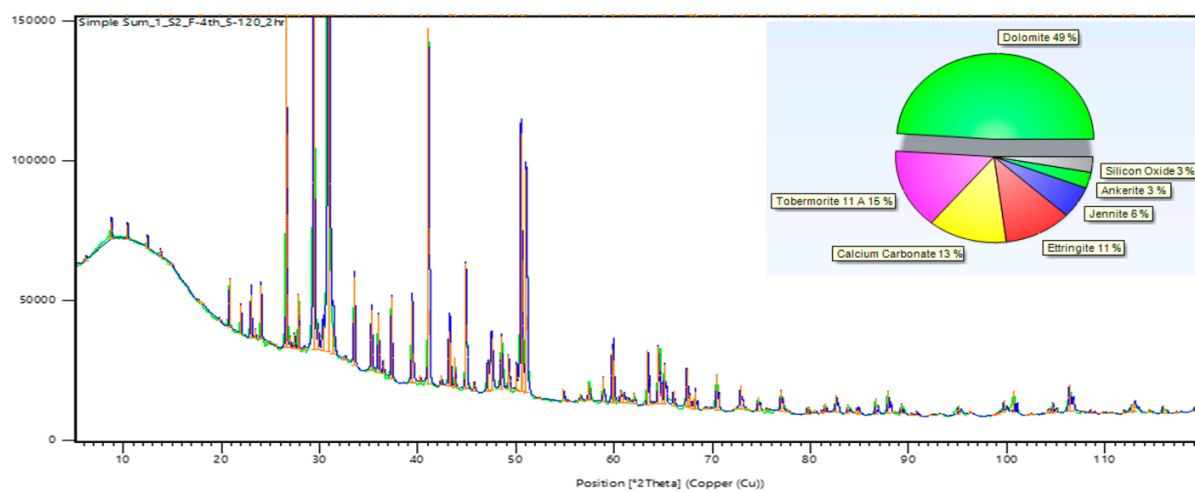


Figure S2B: XRD analysis of treated CRCA with heat treatment at 250°C.

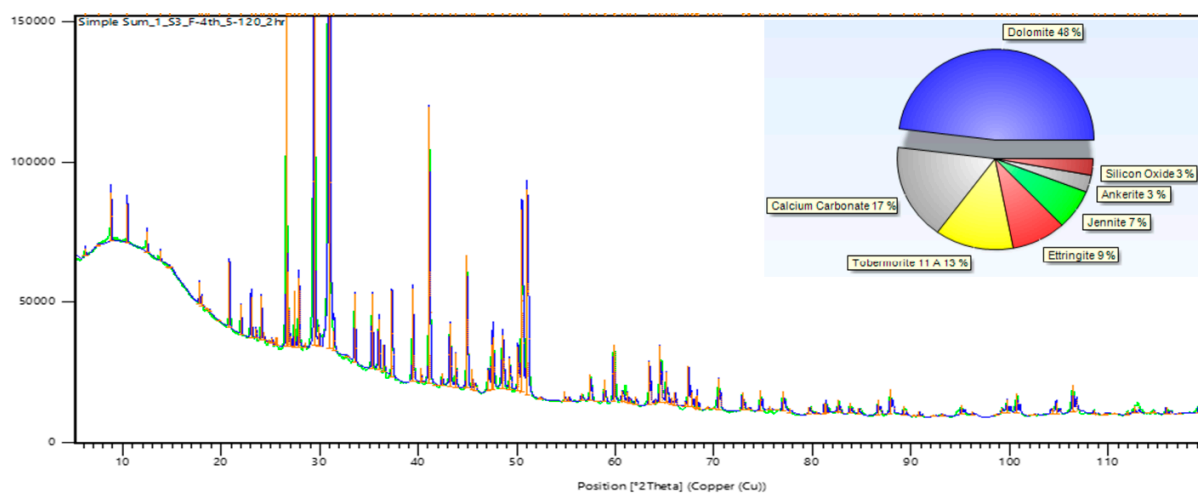


Figure S2C: XRD analysis of treated CRCA with heat treatment at 350°C.

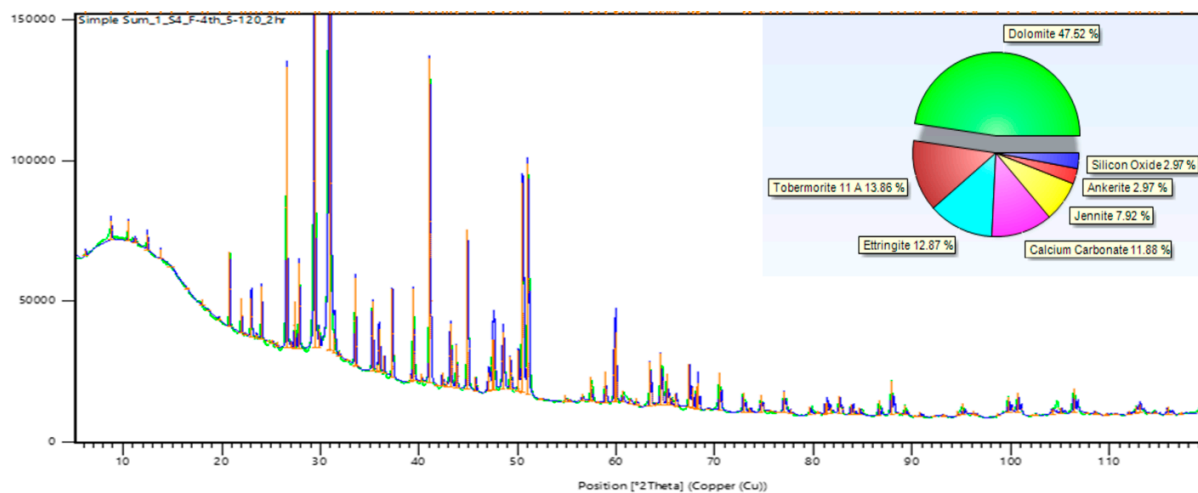


Figure S2D: XRD analysis of treated CRCA with heat treatment at 500°C.

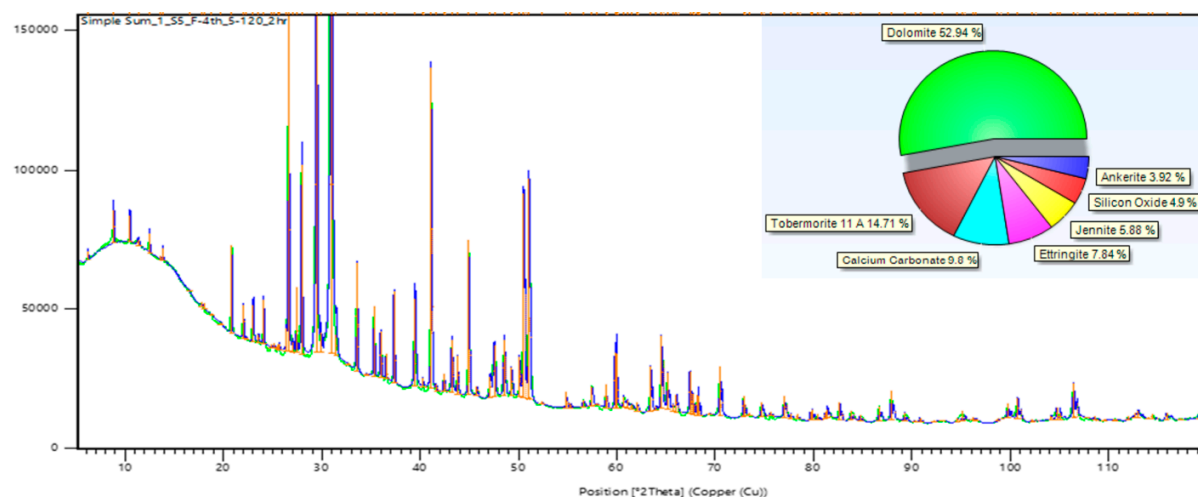


Figure S2E: XRD analysis of treated CRCA with HCl acid.

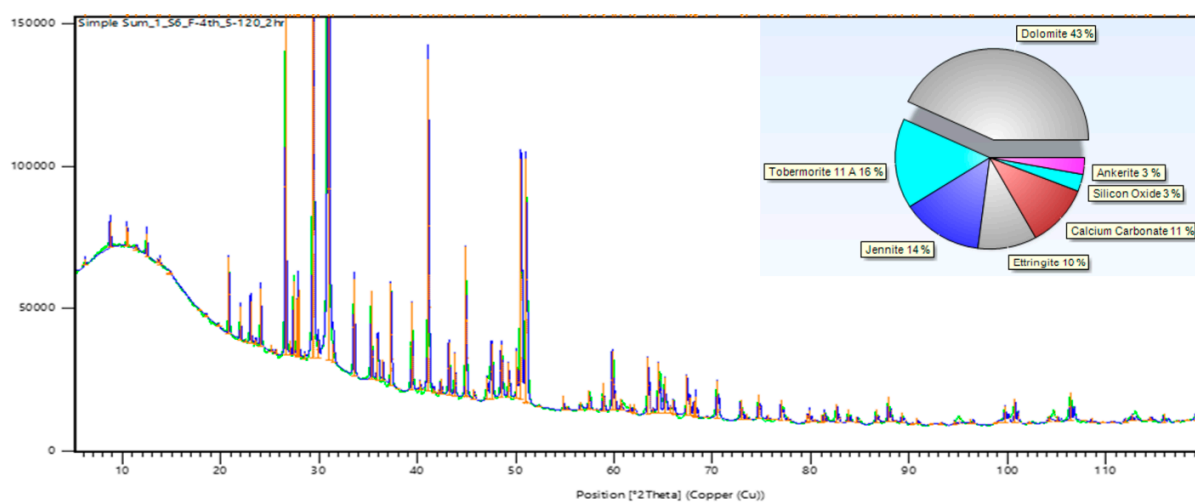


Figure S2F: XRD analysis of treated CRCA with C₂H₄O acid.