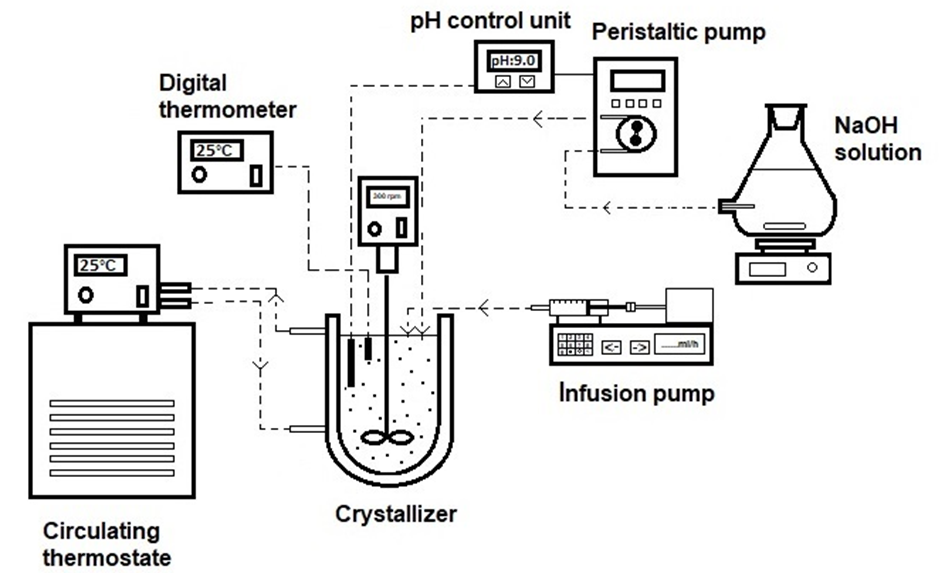
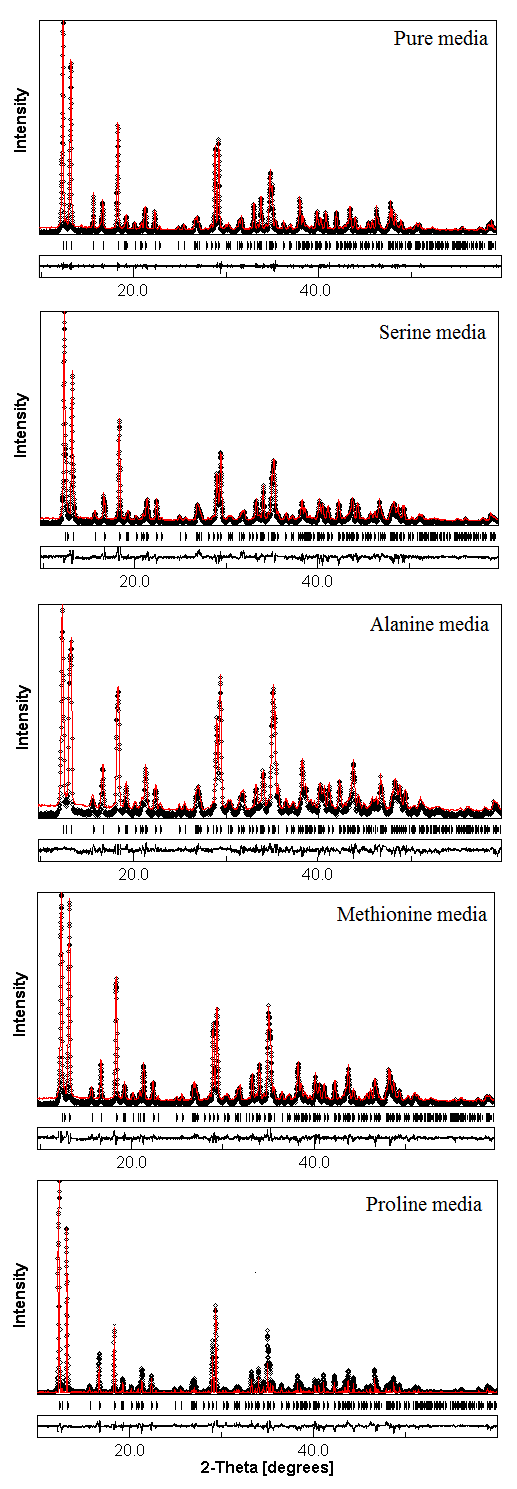
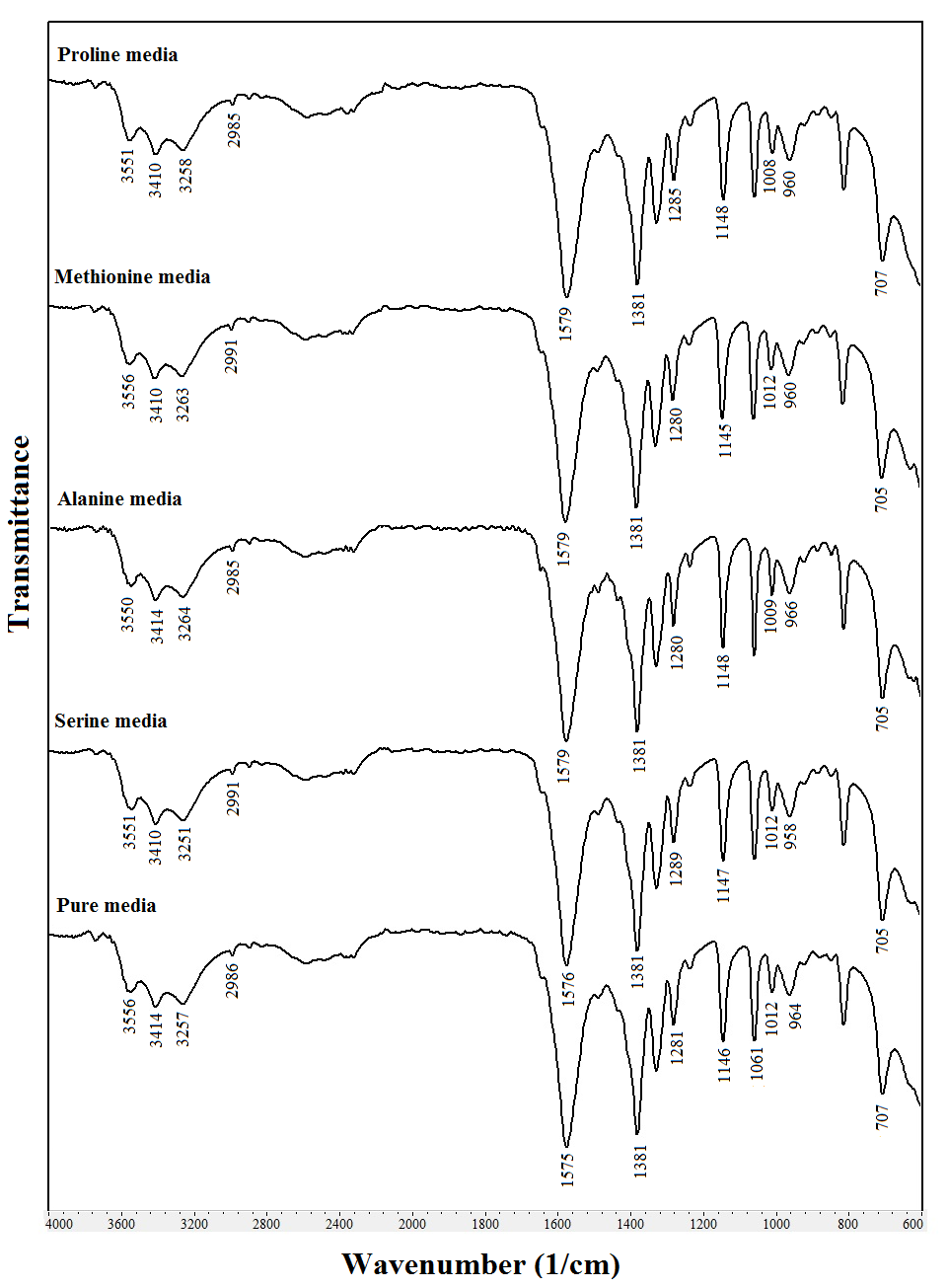
**Figures**

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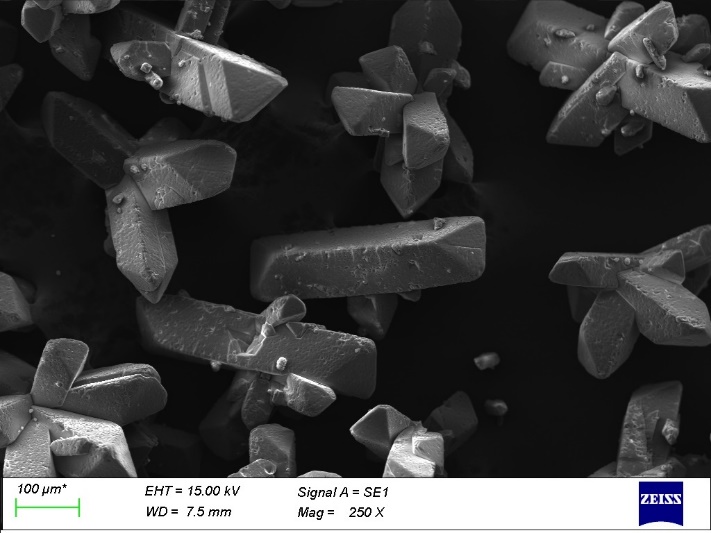
**Figure 1.** Experimental setup.



**Figure 2.** XRD patterns of the calcium tartrate crystals obtained in pure media and media supplemented with various amino acids.

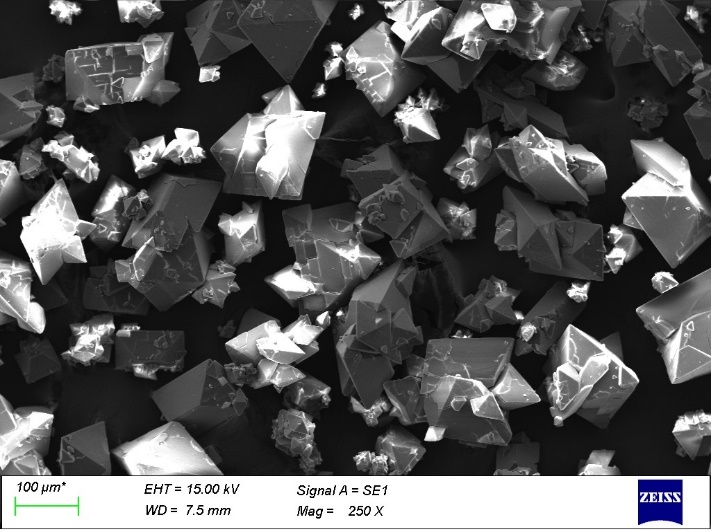
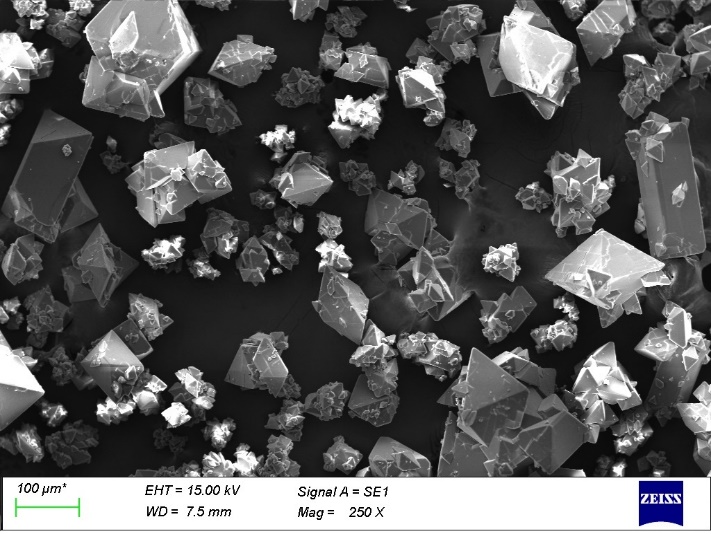


**Figure 3.** FTIR spectra of the calcium tartrate crystals obtained in pure media and media supplemented with various amino acids.



**(a)**

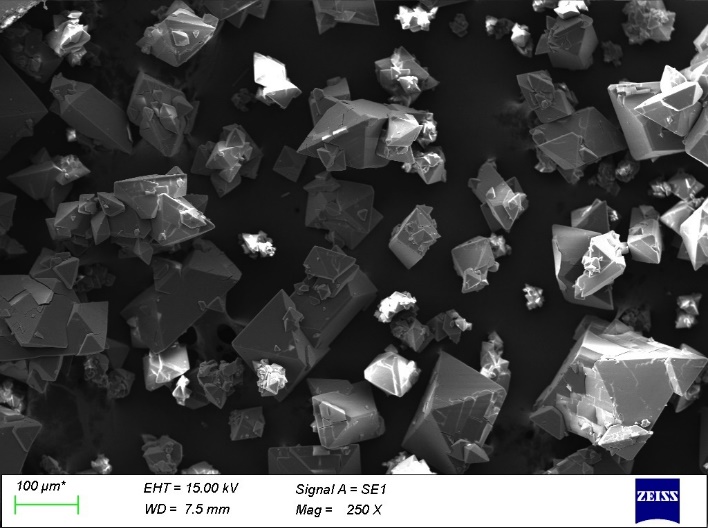
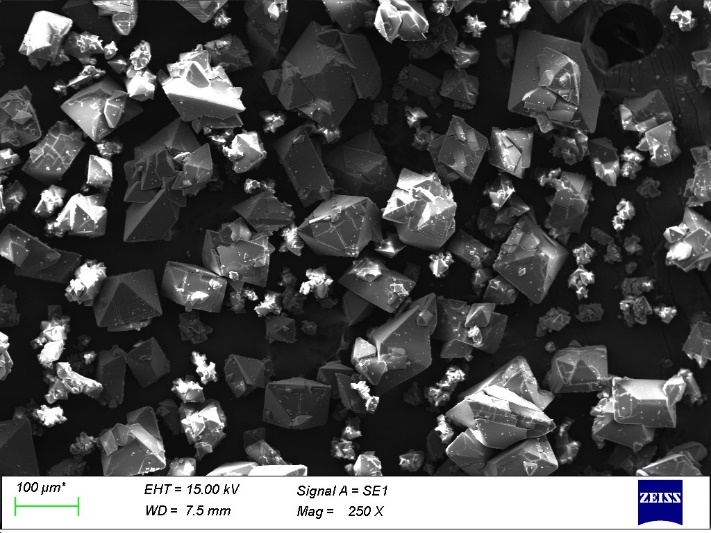
**(b)**

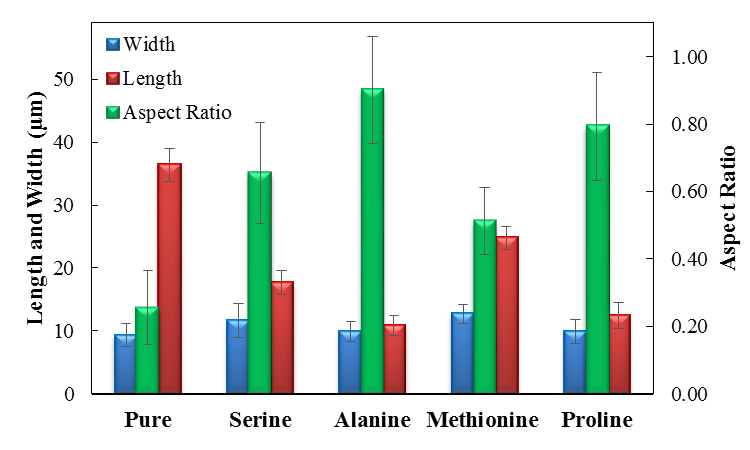
**(c)**

**(e)**

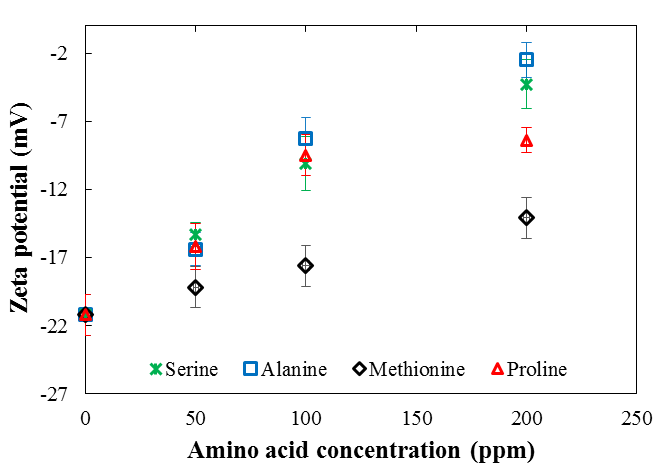
**(d)**

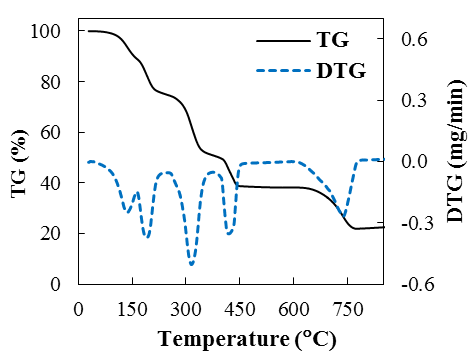
**Figure 4.** SEM images of the calcium tartrate crystals obtained in pure media (a) and media supplemented with amino acids serine (b), alanine (c), methionine (d), and proline (e)



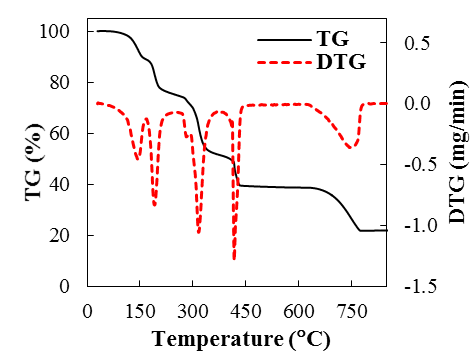
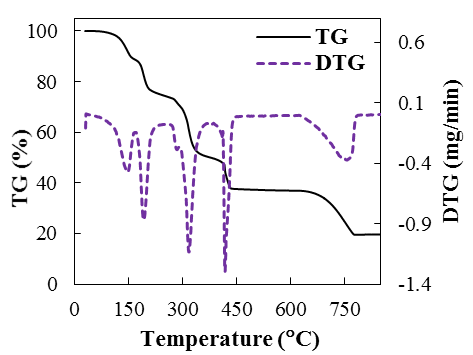
**Figure 5.** Effects of amino acids on the width, length, and aspect ratio of calcium tartrate tetrahydrate crystals



**Figure 6.** Variation of zeta potential with amino acid

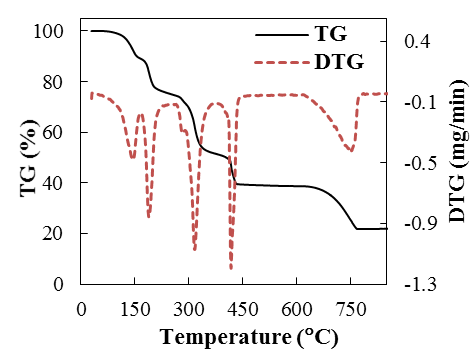
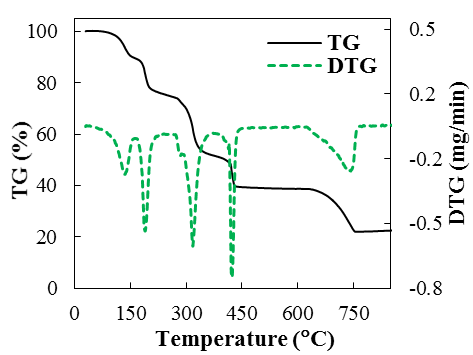


**(a)**



**(c)**

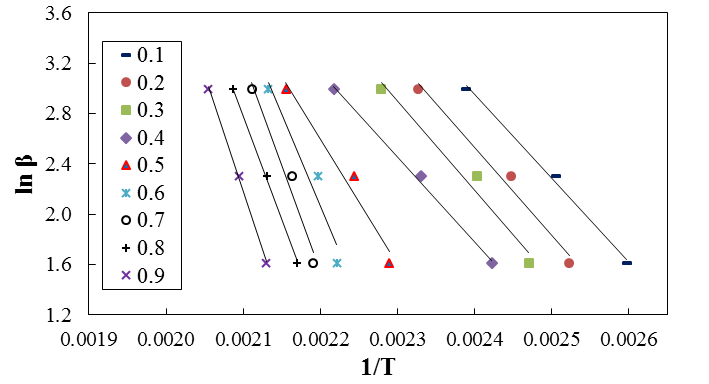
**(b)**



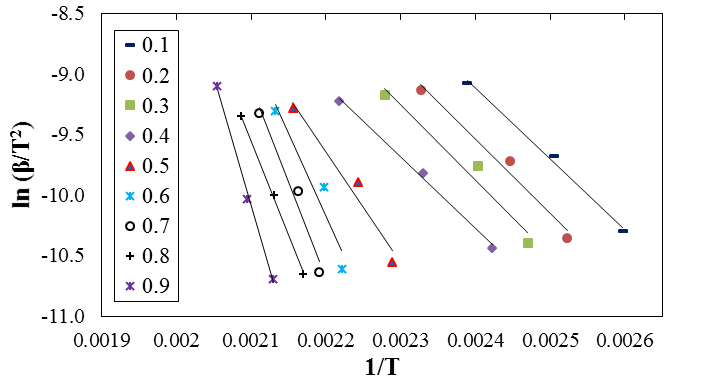
**(d)**

**(e)**

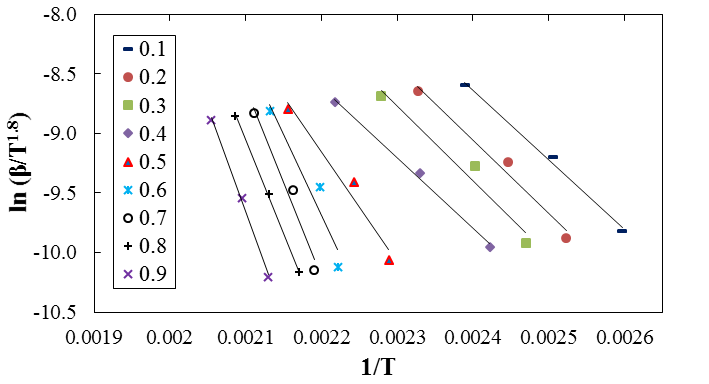
**Figure 7.** TG/DTG curves of the calcium tartrate crystals obtained in pure media (a) and media supplemented with serine (b), alanine (c), methionine (d), and proline (e)



**(a)**

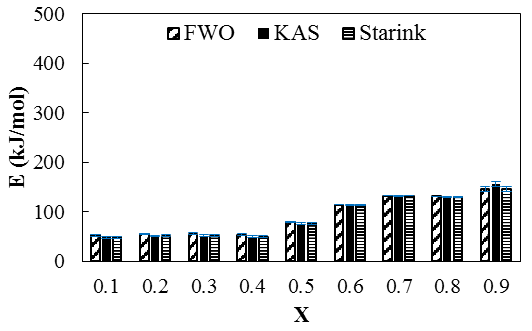


**(b)**

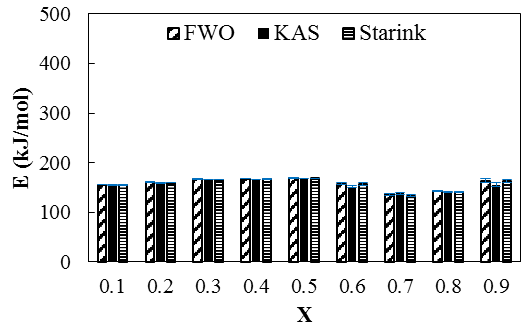


**(c)**

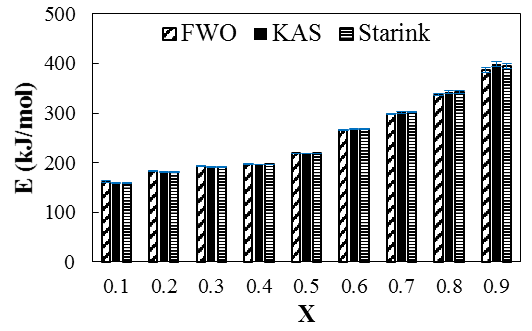
**Figure 8.** Plots of (a) FWO, (b) KAS, and (c) Starink methods for the first decomposition stage of the calcium tartrate tetrahydrate crystals



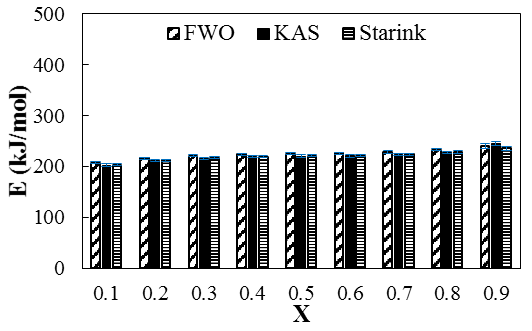
**(a)**



**(b)**



**(c)**



**(d)**

**Figure 9.** Activation energy versus conversion degree for the calcium tartrate tetrahydrate crystals