

**Adsorption of Fluoride from Water using Aluminum Coated Silica Adsorbents:
Comparison of Silica Sand and Microcrystalline Silica**

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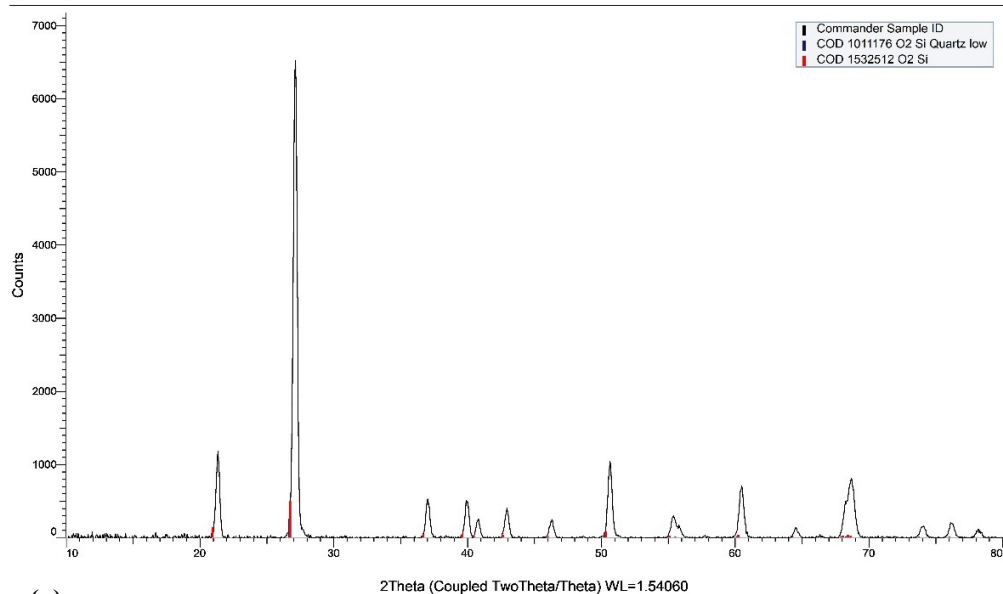
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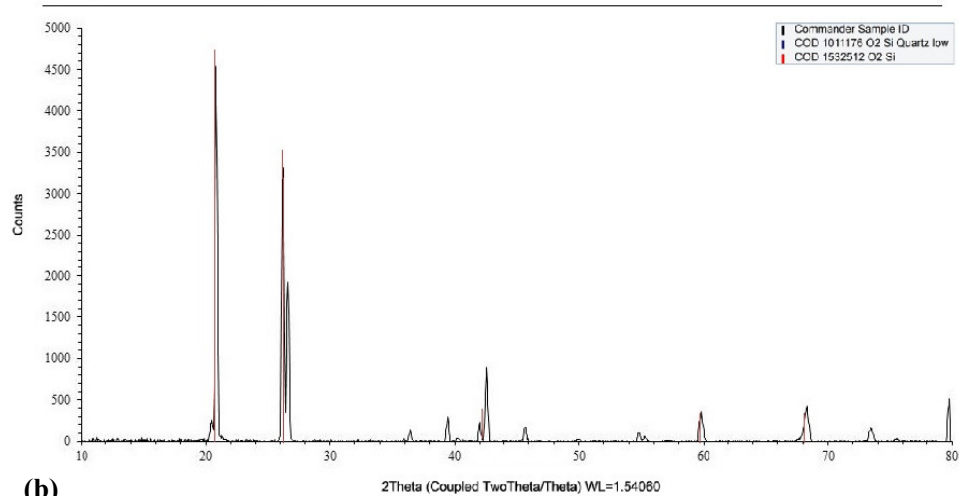
Supplementary Material

(Coupled TwoTheta/Theta)



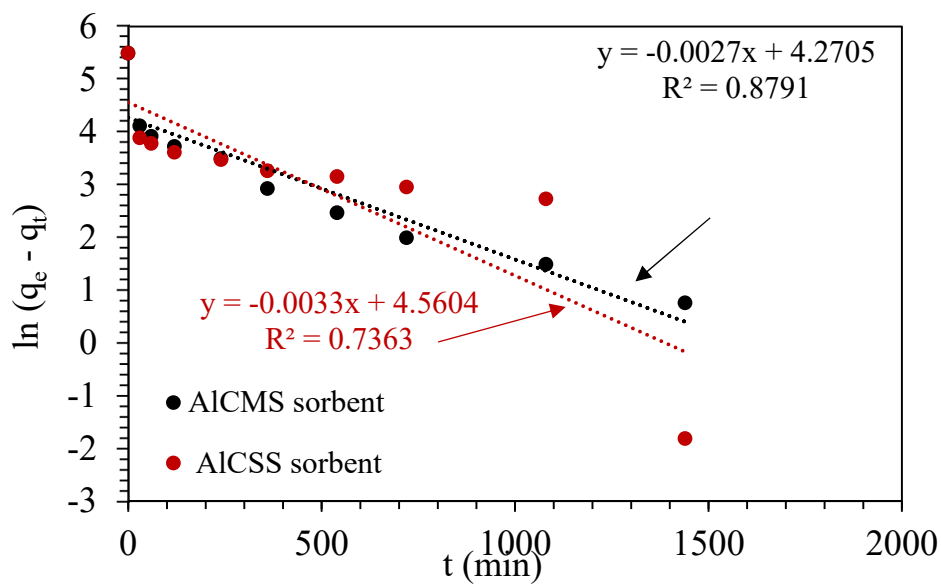
(a)

(Coupled TwoTheta/Theta)

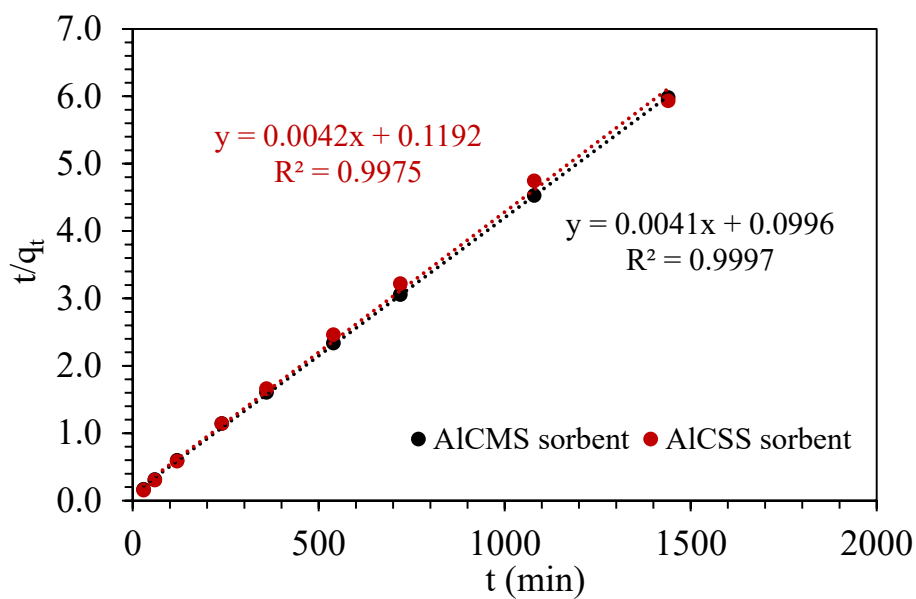


(b)

Figure S1. XRD patterns of (a) Microcrystalline Silica and (b) Silica Sand.

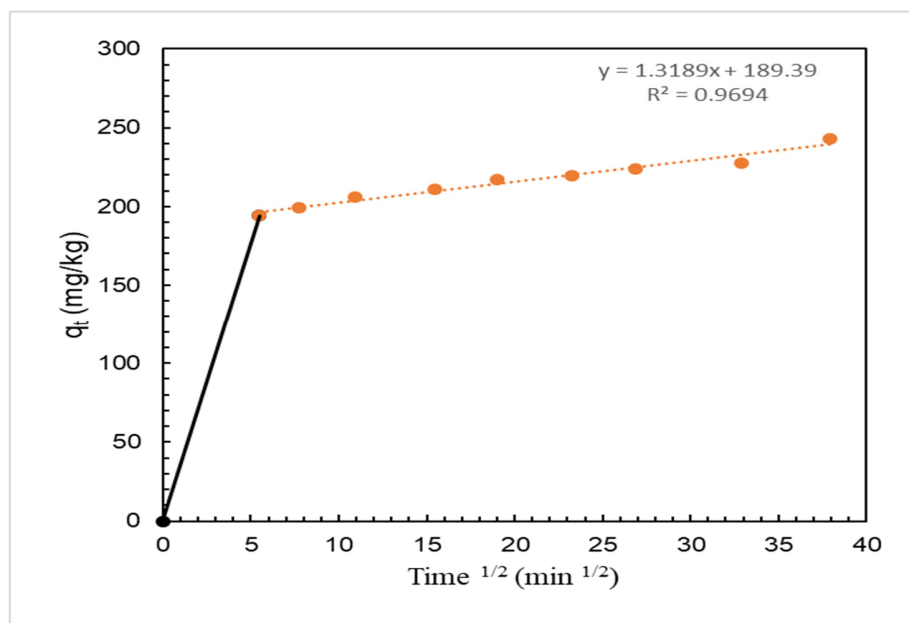


(a)

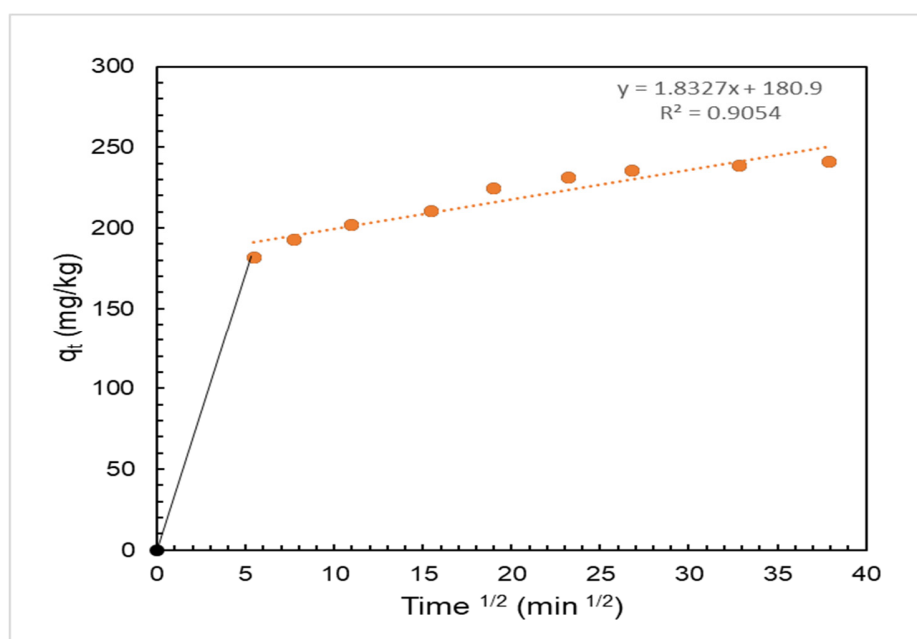


(b)

Figure S2. (a) Pseudo-first-order kinetics plot for fluoride adsorption by the AICSS and AICMS sorbents using an initial fluoride concentration of 5 mg/L and an adsorbent dosage of 20 g/L; (b) Pseudo-second-order kinetics plot for fluoride adsorption by the AICSS and AICMS sorbents using an initial fluoride concentration of 5 mg/L and an adsorbent dosage of 20 g/L.



(A)



(B)

Figure S3. (a) Intraparticle diffusion plot for AICSS sorbent, (b) Intraparticle diffusion plot for AICMS sorbent.

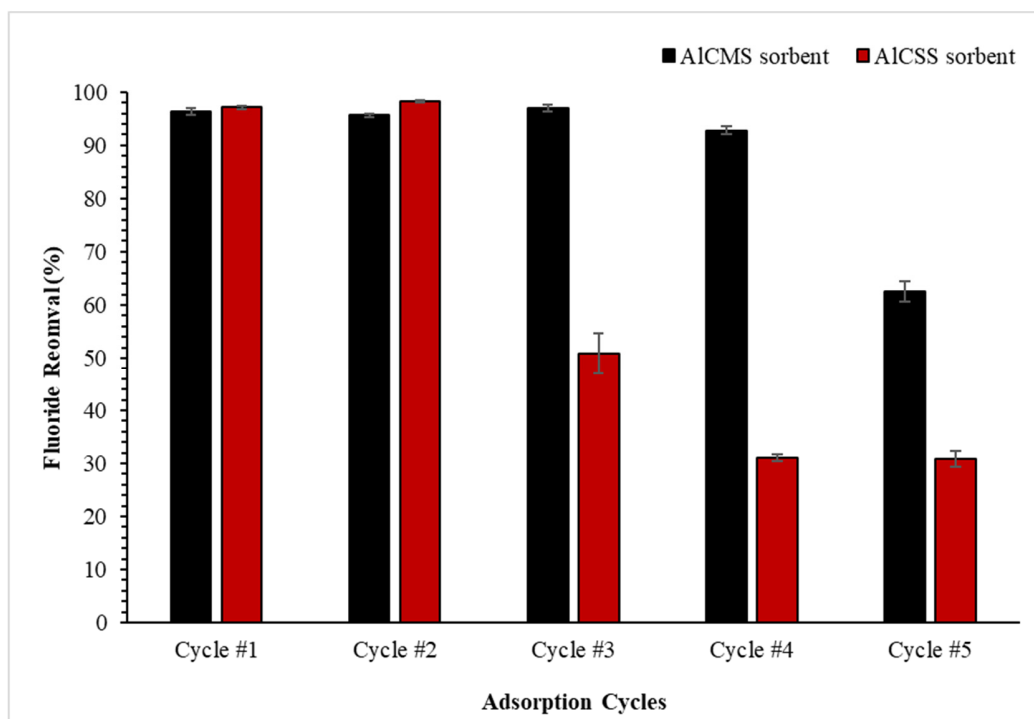


Figure S4. Successive adsorption cycles study using 20 g/L of AICSS and AICMS sorbents with 5 mg/L initial fluoride concentration for 24 hour adsorption cycles.