

## Supplementary Materials

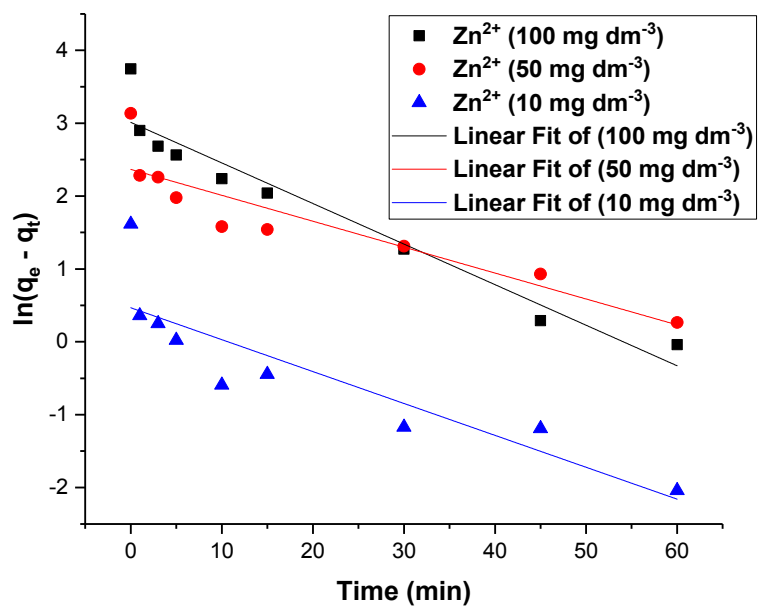


Figure S1. Pseudo-first order kinetic model of Zn<sup>2+</sup>.

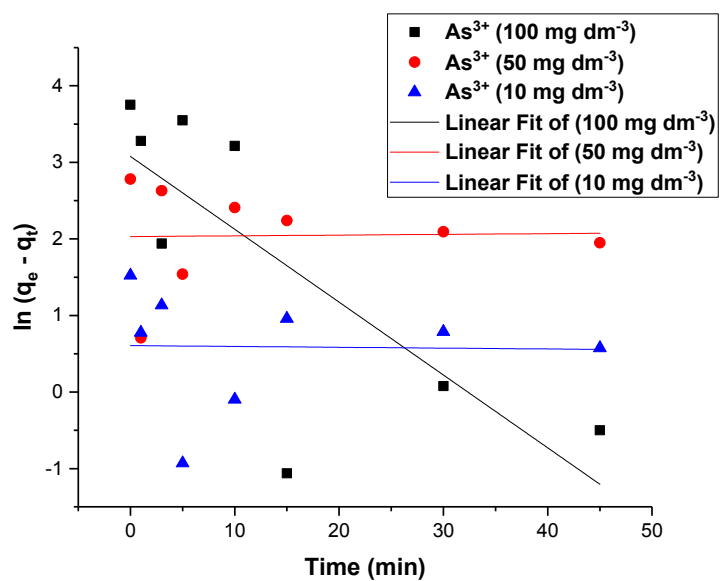


Figure S2. Pseudo-first order kinetic model for As<sup>3+</sup>.

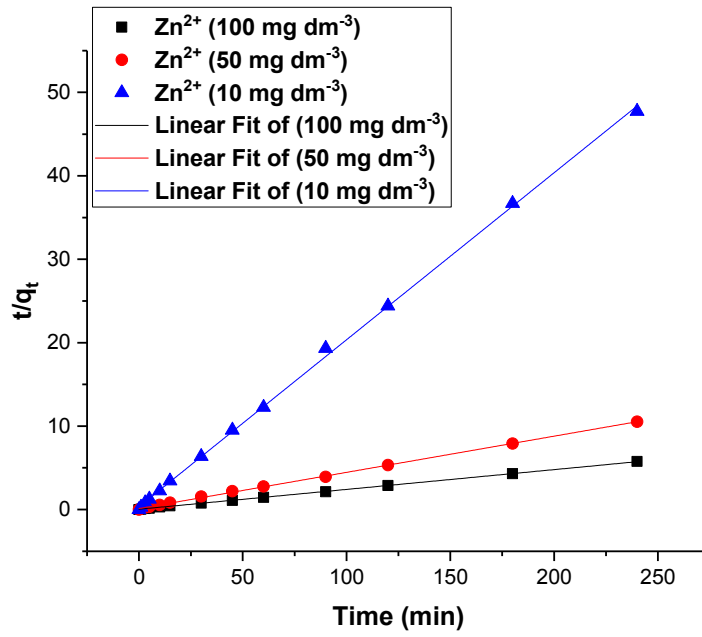


Figure S3. Pseudo-second order kinetic model of Zn<sup>2+</sup>.

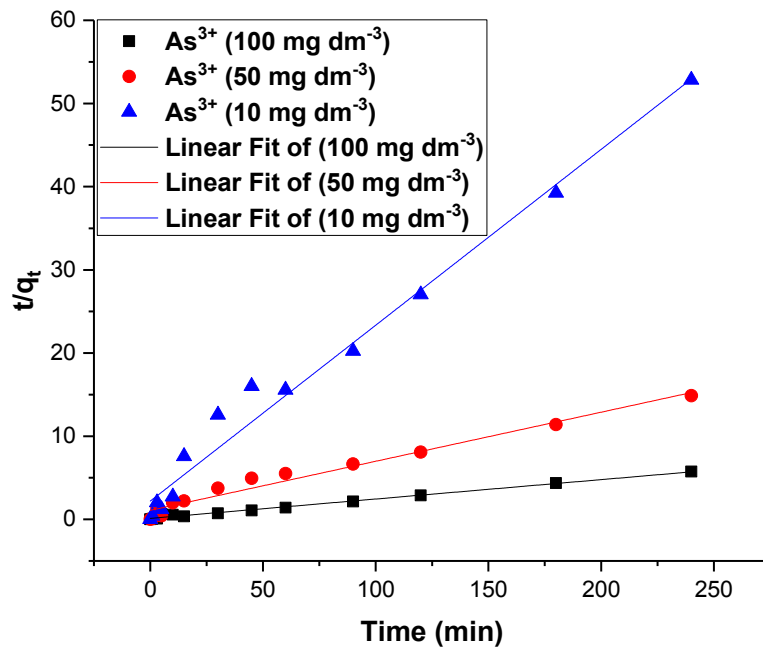


Figure S4. Pseudo-second order kinetic plot of As<sup>3+</sup>.

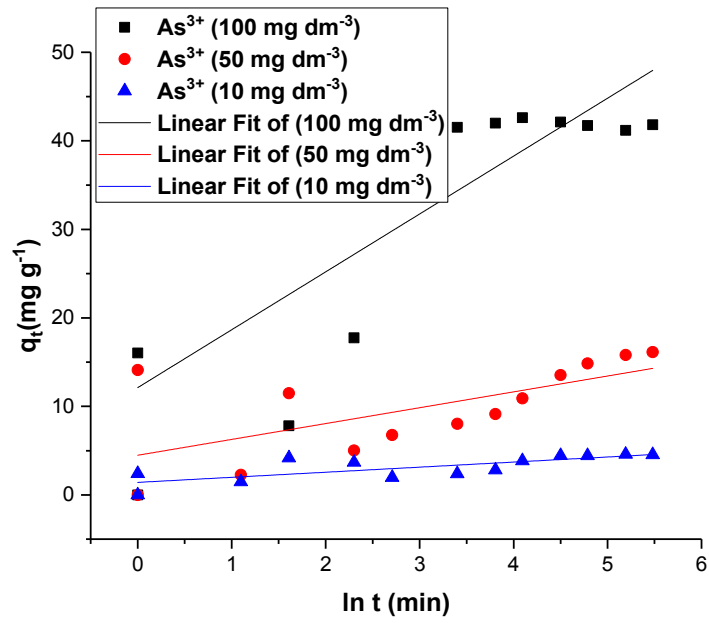


Figure S5. Kinetic model for elovic- As<sup>3+</sup>.

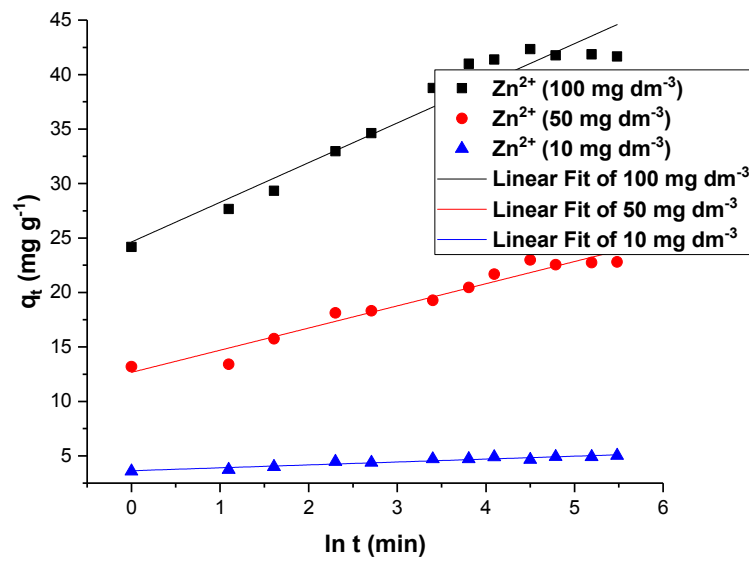


Figure S6. Elovic kinetic model of Zn<sup>2+</sup>.

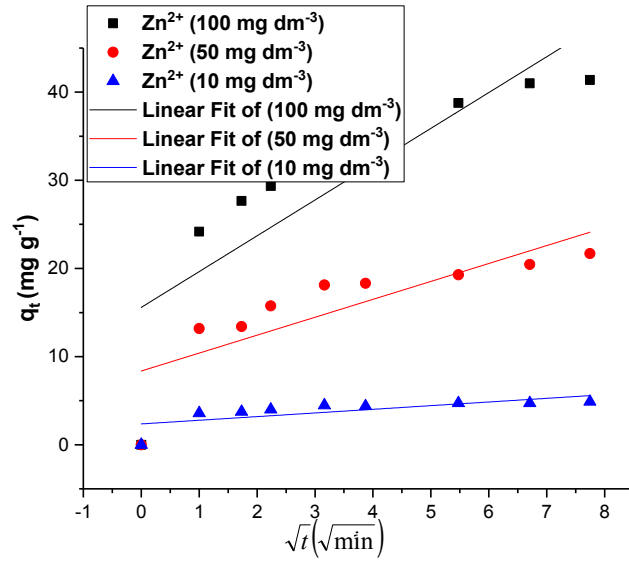


Figure S7. kinetic plot of intraparticle diffusion model for Zn<sup>2+</sup>.

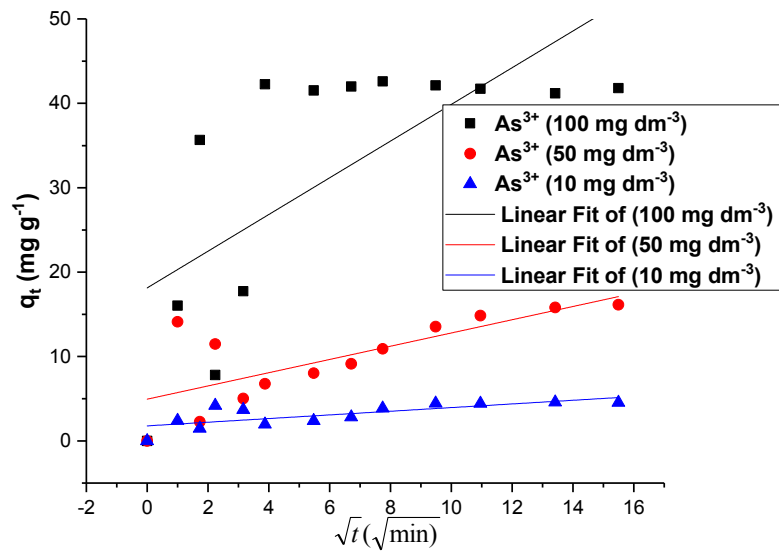


Figure S8. Intra-particle diffusion model for As<sup>3+</sup>.

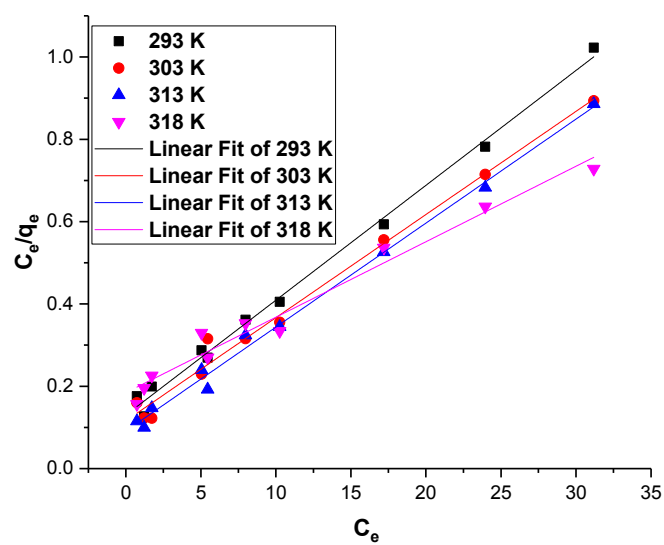


Figure S9. Langmuir isotherm plot of Zn<sup>2+</sup>.

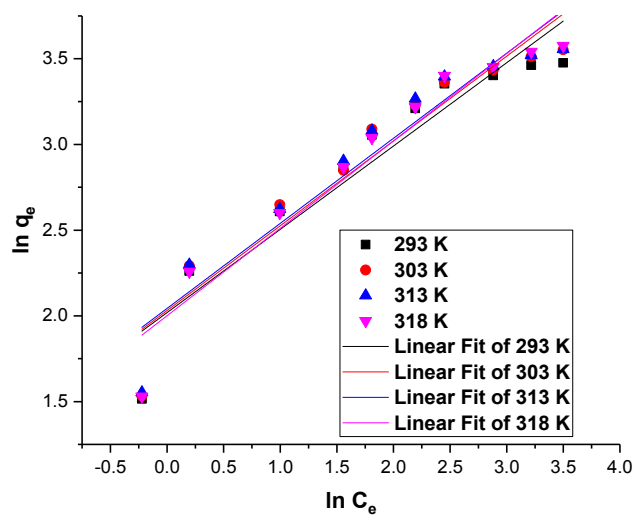


Figure S10. Freundlich isotherm plot for Zn<sup>2+</sup>.

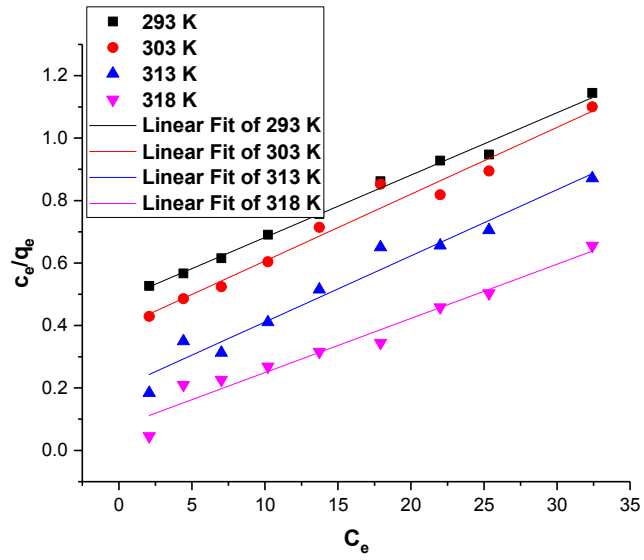


Figure S11. Langmuir isotherm plot for  $As^{3+}$ .

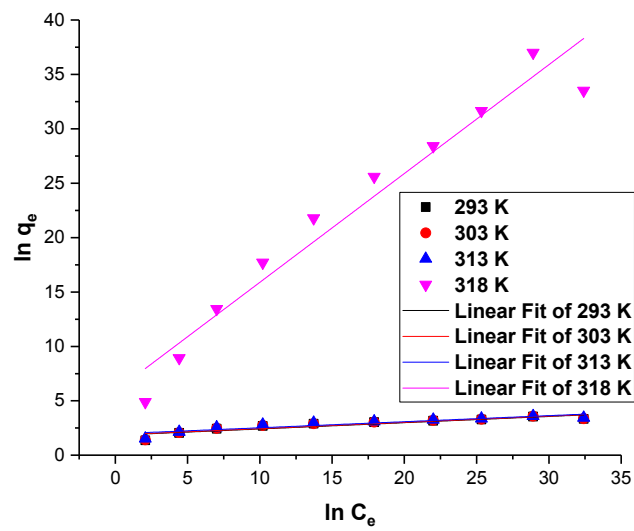


Figure S12. Freundlich isotherm plot for  $As^{3+}$ .