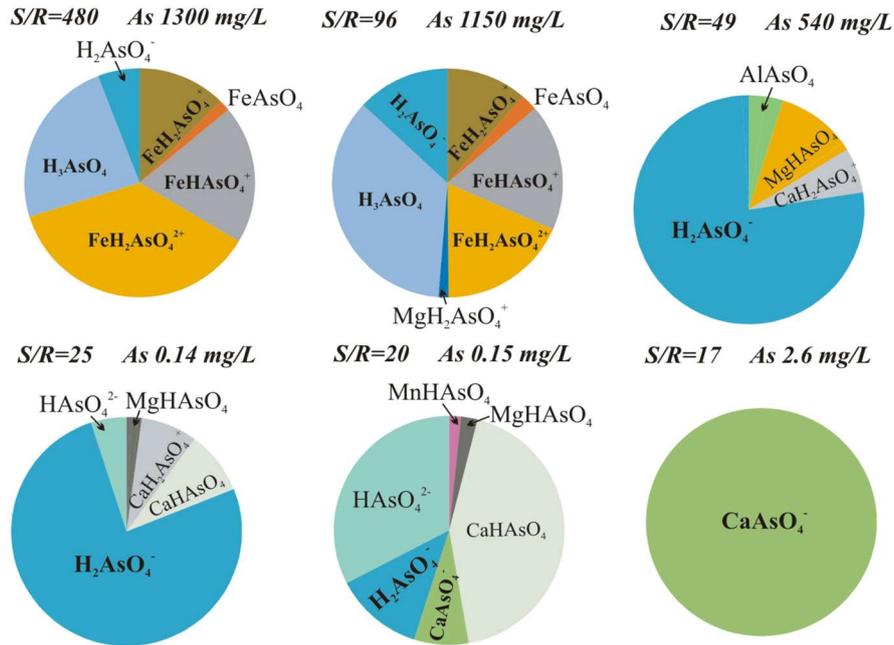
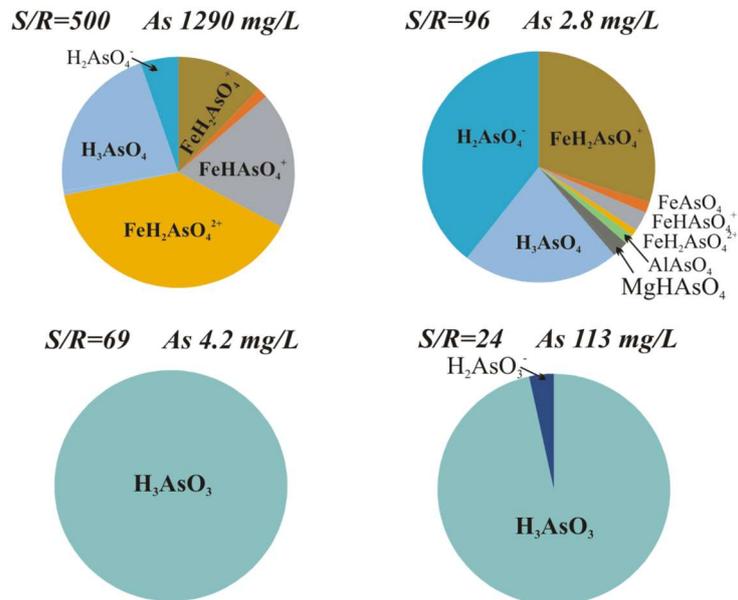


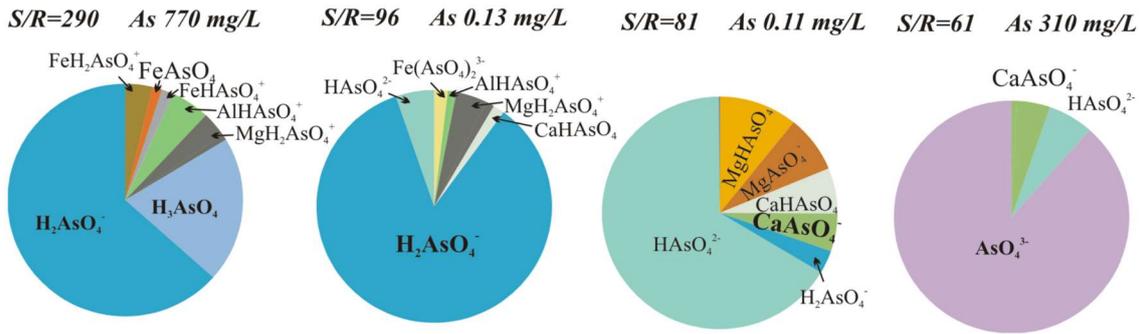
# Supplementary Materials



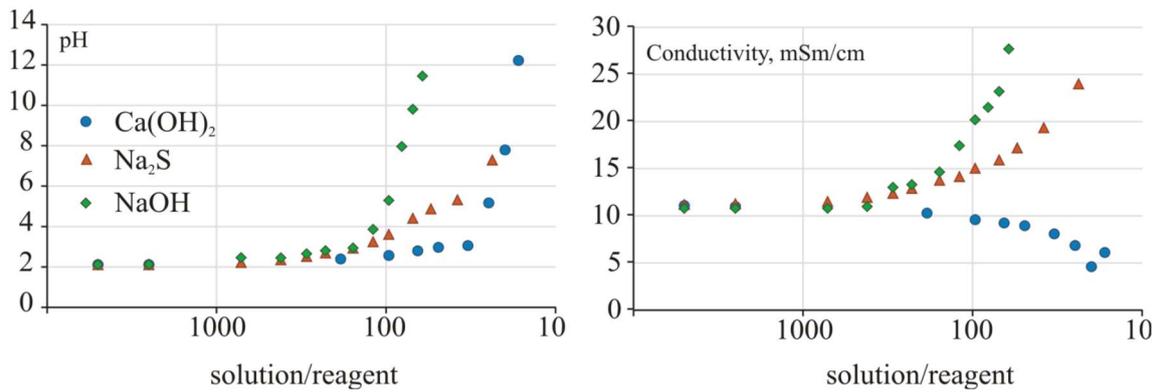
**Figure S1.** Changes in the As species in the solutions during the experiments with  $\text{Ca}(\text{OH})_2$  at a decrease in the solution/reagent ratio.



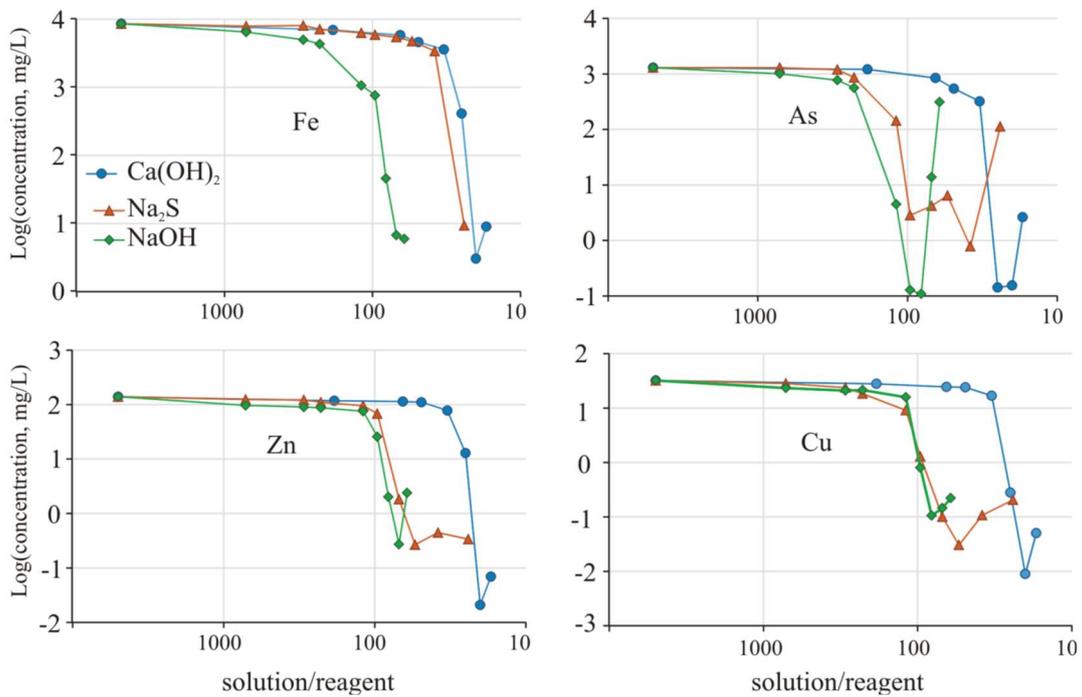
**Figure S2.** Changing As species in solution during the experiment with  $\text{Na}_2\text{S}$  at a decrease in the water/rock ratio.



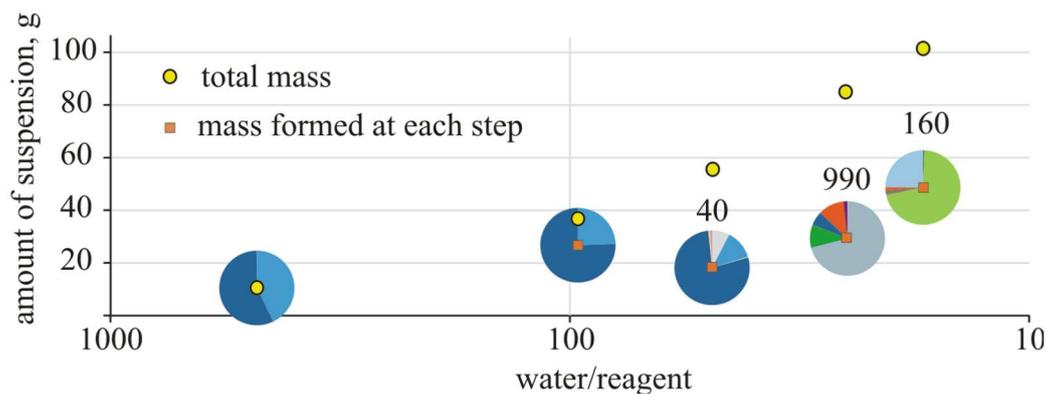
**Figure S3.** The change in As species during the experiment with NaOH at a decrease in the solution/reagent ratio.



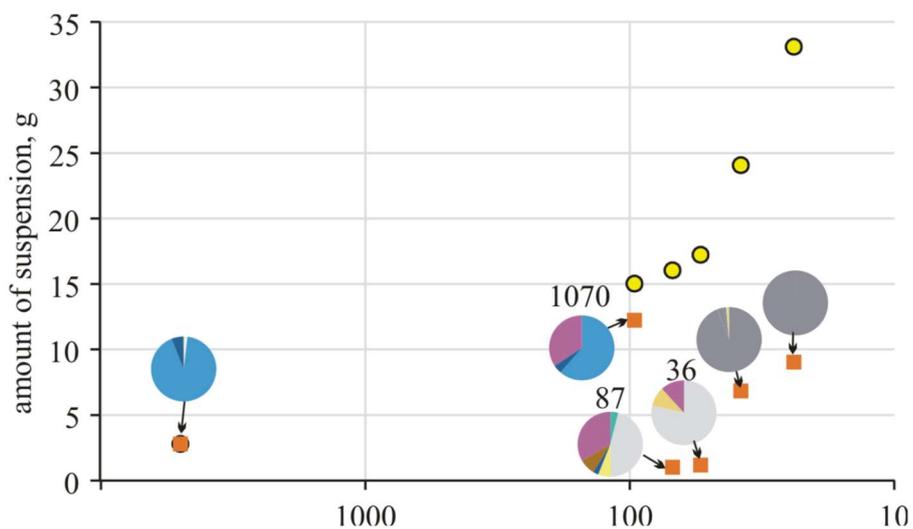
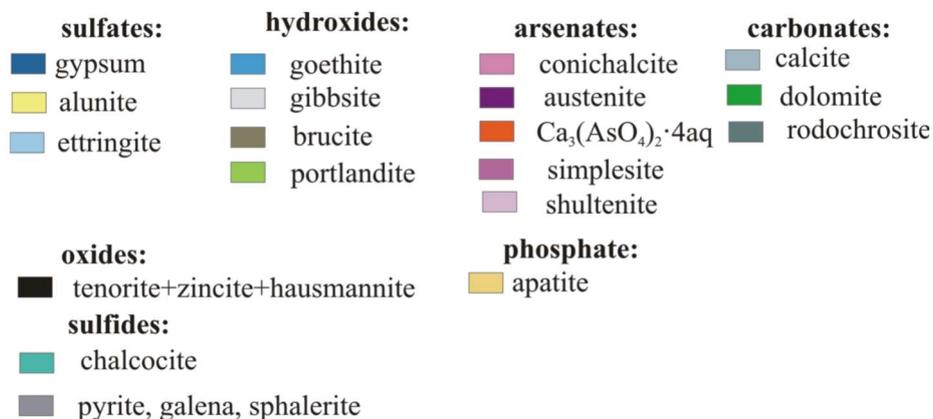
**Figure S4.** Comparison of the changes in the physicochemical parameters of the solution in the experiments.



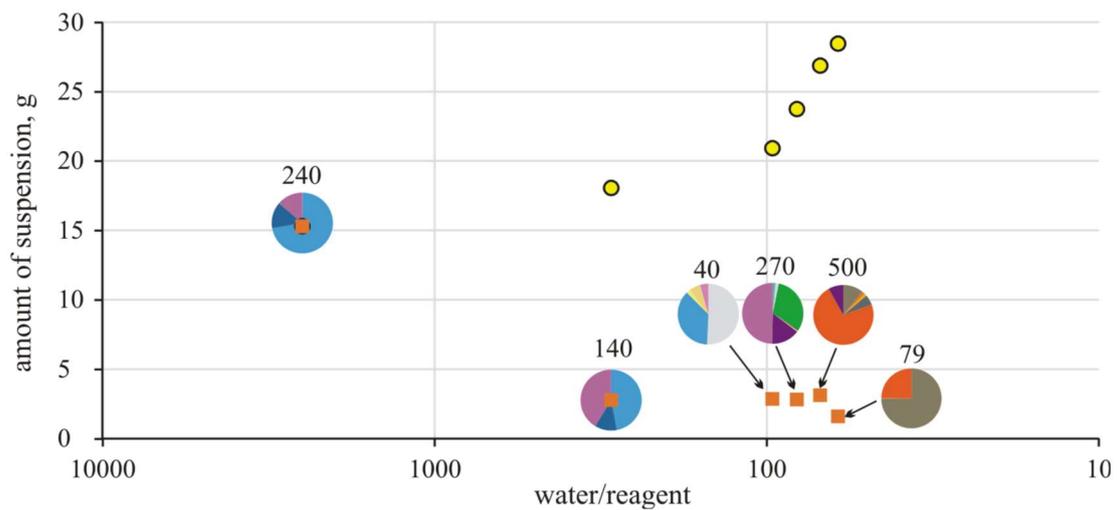
**Figure S5.** Comparison of changes in elemental concentrations in experiments.



**Figure S6.** The amount and phase composition of the resulting precipitate in the experiment with  $\text{Ca}(\text{OH})_2$ . Hereinafter: numbers above circles denote the amount of As removed from the solution.



**Figure S7.** The amounts and phase compositions of the resulting suspensions in the experiment with  $\text{Na}_2\text{S}$ .



**Figure S8.** The amounts and phase compositions of the resulting suspensions in the experiment with NaOH.