Next-day assignment acid-base geochemistry GEOL 135

1. For the following reaction, rearrange the equilibrium (K) expression, to express [HS-] in terms of pK1, pH, and log[H2S]

H2S 🡪 HS- + H+

2. For the following reaction, rearrange the equilibrium (K) expression, substitute the expression found above for [HS-], and express [S2-] in terms of pK1, pK2, pH, and log[H2S]

HS- 🡪 S2- + H+

Next-day assignment acid-base geochemistry GEOL 135

1. For the following reaction, rearrange the equilibrium (K) expression, to express [HS-] in terms of pK1, pH, and log[H2S]

H2S 🡪 HS- + H+

2. For the following reaction, rearrange the equilibrium (K) expression, substitute the expression found above for [HS-], and express [S2-] in terms of pK1, pK2, pH, and log[H2S]

HS- 🡪 S2- + H+