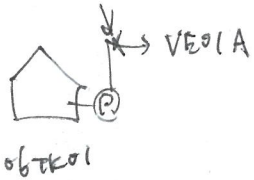

[pH 3.5 , $[Ni^{2+}]$ = 4 g/ℓ , $[Co^{2+}]$ = ____ g/ℓ , $[Mn^{2+}]$ = ____ g/ℓ , $[Cr^{3+}]$ = ____ g/ℓ , $[Fe^{2+}]$ = ____ g/ℓ]

1) $H_2S \rightleftharpoons H^+ + SH^-$: $k_1 = 9.1 \times 10^{-8}$

2) $SH^- \rightleftharpoons H^+ + S^{2-}$: $k_2 = 1.1 \times 10^{-12}$

K_{sp} : ① $[Zn^{2+}][S^{2-}] = 8.9 \times 10^{-25}$ $[mol/\ell]^2$

MS $[Ni^{2+}][S^{2-}] = 2.8 \times 10^{-21}$

④ $[Fe^{2+}][S^{2-}] = 4.9 \times 10^{-18}$

MS $[Co^{2+}][S^{2-}] =$

② $[Mn^{2+}][S^{2-}] =$

$[Mg^{2+}][S^{2-}] =$

③ $[Cr^{3+}]^n[S^{2-}]^m =$

⑤ $[Cu^{2+}][S^{2-}] =$

: MS

: Critical @ MS-RXT

: Non-Critical @ MS-RXT