**ANSWERS: Additional questions on Solubility product**

|  |  |  |  |
| --- | --- | --- | --- |
| **BaCrO4**  *K*s(BaCrO4) = 1.2 x 10-10  BaCrO4 ⇄ Ba2+ + CrO42-  Ks = [Ba2+] [CrO42-]  1.2 x 10-10 = x . x  1.2 x 10-10 = x2  √ 1.2 x 10-10 =x  **ANS:** 1.1 x 10-5 mol L-1 | **Cu(IO3)2**  *K*s = 1.3 x 10-12  Cu(IO3)2 ⇄ Cu2+ + 2IO3-  Ks = [Cu2+] [IO3-]2  1.3 x 10-12 = x . 2x2  1.3 x 10-12 = 4x3  3√ 1.3 x 10-12 = x  **4**  **ANS:** 6.9 x 10-5 mol L-1 | **SrF2**  *K*s = 4.3 x 10-10  SrF2 ⇄ Sr2+ + 2F-  Ks = [Sr2+] [F-]2  4.3 x 10-10 = x . 2x2  4.3 x 10-10 = 4x3  3√ 4.3 x 10-10 = x  **4**  **ANS:** 4.8 x 10-4 mol L-1 | **PbI2**  *K*s = 8.5 x 10-9  *K*s(PbI2) = 8.5 x 10-9  PbI2 ⇄ Pb2+ + 2I-  Ks = [Pb2+] [I-]2  8.5 x 10-9 = x . 2x2  8.5 x 10-9 = 4x3  3√ 8.5 x 10-9 = x  **4**  **ANS:** 1.2 x 10-3 mol L-1 |

|  |  |  |  |
| --- | --- | --- | --- |
| **conc of Ag+ ions is**  **AgCl** ⇄ Ag+ + Cl-  Ks = [Ag+] [Cl-]  **1.8 x 10 -10 = x . x**  **1.8 x 10 -19** = x2  √ **1.8 x 10 -19 = x**  **ANS:** 4.2 x 10-10 mol L-1 | **conc of S2- ions is**  **CuS** ⇄ Cu2+ + S2-  Ks = [Cu2+] [S2-]  **6.0 x 10 -37 = x . x**  **6.0 x 10 -37** = x2  √ **6.0 x 10 -37 = x**  **ANS:** 7.7 x 10-19 mol L-1 | **conc of Cu2+ ions is**  Cu(IO3)2 ⇄ Cu2+ + 2IO3-  Ks = [Cu2+] [IO3-]2  6.9 x 10-8 = x . 2x2  6.9 x 10-8 = 4x3  3√ 6.9 x 10 -8 = x  **4**  **ANS: 2.6 x 10-3** mol L-1 | **conc of OH- ions is**  Fe(OH)2 ⇄ Fe2+ + 2OH-  Ks = [Fe2+] [OH-]2  4.9 x 10-17 = x . 2x2  4.9 x 10-17 = 4x3  3√ 4.9 x 10-17 = x  **4**  = 2.3 x 10-6 mol L-1  There are 2 x number of OH- ions, so the answer is 4.6 x 10-6 mol L-1 |

<https://www.chemical-minds.com>