

Answer on Question #80221 – Chemistry – Inorganic Chemistry

Cu^{2+} is stable than Au^{2+} , because despite the fact that they have d^9 configuration, its electrons are on the different levels (Cu on 3, Au on 5), that is electronic configuration of Cu^{2+} is $1s^2 2p^6 3s^2 3p^6 3d^9$ and Au^{2+} is $1s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^6 4d^{10} 5s^2 5p^6 5d^9$. Charge of Au^{2+} higher than Cu^{2+} , but as they are ions, charge density of Au^{2+} lower than Cu^{2+} . And it means that Au^{2+} worse stabilizes than Cu^{2+} .