

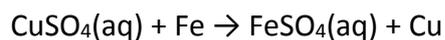
Answer on Question #43196 - Chemistry - Other

Question:

Why does the blue color of copper sulphate solution change when a piece of iron dropped into it ?

Answer:

Copper sulphate reacts with more reactive metals than copper (e.g. Mg, Fe, Zn, Al, Sn, Pb, etc.). That is why, when a piece of iron is dropped into the copper sulphate solution, the following chemical reaction occurs:



As a result the solution color changes from a blue color of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ to a blue-green color of $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$. Additionally, the precipitate of metallic copper is formed on the iron surface.