

Answer on Question #53527 – Chemistry – Inorganic Chemistry

Question:

What are pseudohalogens? Explain with examples.

Answer:

Pseudohalogens are substances, which show reactivity and properties of halogens. There are several well-known compounds and anions: $(\text{CN})_2$ - cyanogen, $(\text{SCN})_2$ - thiocyanogen, N_3^- – azide anion, CN^- - cyanide anion, SCN^- - thiocyanide, etc. Despite they contain unsaturated bonds pseudohalogens as well as pseudohalides (anion form) are very stable and interact as true halogens or corresponding halides. They form similar acids with general formula of HX, which can react with metals to give salts.

For instance their reactions with water, $\text{Fe}_2(\text{SO}_4)_3$ and AgF are presented below:

