

Marks
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- Alfred Werner, one of the founders of the field of coordination chemistry, made extensive studies of the metal complex $[\text{PtCl}_2(\text{NH}_3)_2]$. He showed that it existed in two isomeric forms and used this information to predict that the compound had a square-planar molecular geometry. What other molecular geometry would need to be considered for such a complex and on what basis did Werner reject this alternative geometry?

Draw and name the two isomers.

Why does platinum(II) form square-planar complexes?

Which one of the isomers is biologically active? What is its activity? Describe two features of the complex that play important roles in this biological activity.