

## Question #83899, Chemistry / Inorganic Chemistry | for completion

When salt contains both a weak acid ion and a weak base ion how would you predict whether the solution's pH is acidic basic or neutral

Answer:

It all depends on the relative "strength" of the acid and the base. The one that has the higher pK will dominate. If both are equally weak (pKs of the same order of magnitude) the solution will be neutral. If both are weak but there are one or more magnitude orders of difference between their pKs, then the higher pK will manifest itself, either basic or acid. Of course, as stated on previous answer, if you know the pKs you can calculate the theoretical pH of a solution, or you can measure it with a pH-meter.

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