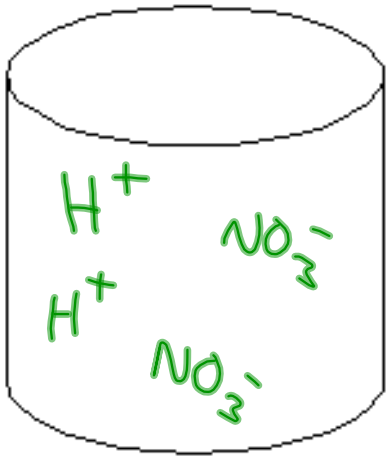
Ionic and Molecular Dissolution

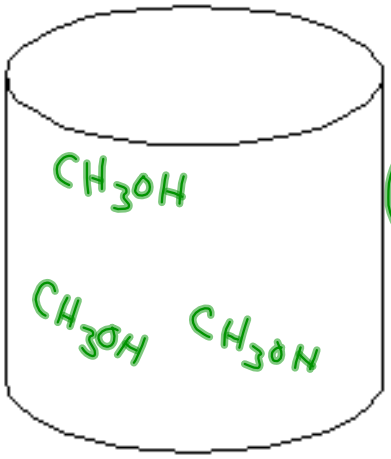
1. A solution of nitric acid conducts electricity. In the beaker below, illustrate what happens when nitric acid (HNO_3) dissolves in water. Explain.



What is the name of this type of dissolution? Ionic Dissolution

Since it conducts electricity, it must have dissociated into ions.

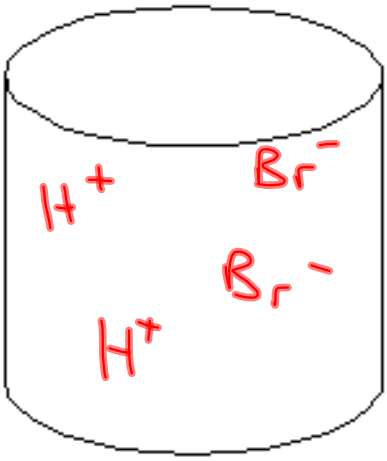
2. A solution of methanol does not conduct electricity. In the beaker below, illustrate what happens when methanol (CH_3OH) dissolves in water. Explain.



What is the name of this type of dissolution? Molecular Dissolution

Since it doesn't conduct electricity, the molecules must be intact.

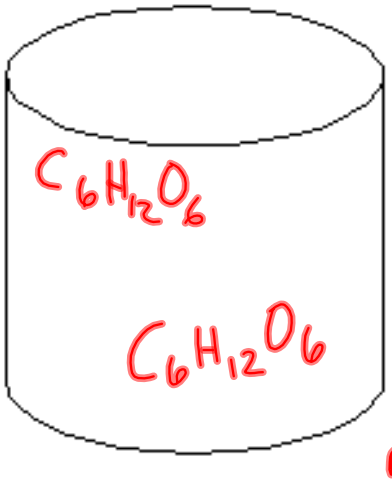
3. A solution of hydrobromic acid conducts electricity. In the beaker below, illustrate what happens when hydrobromic acid (HBr) dissolves in water. Explain.



What is the name of this type of dissolution? Ionic

Since it conducts electricity, the molecules must have dissociated.

4. A solution of sugar does not conduct electricity. In the beaker below, illustrate what happens when glucose ($C_6H_{12}O_6$) dissolves in water. Explain.



What is the name of this type of dissolution? Molecular Dissolution

Since it doesn't conduct electricity, the molecules must have stayed intact.