

superacid

Also contains definitions of: magic acid, superbase

A medium having a high acidity, generally greater than that of 100 wt.% sulfuric acid. The common superacids are made by dissolving a powerful Lewis acid (e.g. SbF_5) in a suitable Brønsted acid such as HF or HSO_3F . (An equimolar mixture of HSO_3F and SbF_5 is known by the trade name 'magic acid'.) In a biochemical context 'superacid catalysis' is sometimes used to denote catalysis by metal ions analogous to catalysis by hydrogen ions. By analogy, a compound having a very high basicity, such as lithium diisopropylamide, is called a 'superbase'.

Source:

PAC, 1994, 66, 1077 (*Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994)*) on page 1169