

Volatile Buffers and Mobile Phase Modifiers

	pKa	pKb	pH range	BP	MP
Acids					
Trifluoroacetic Acid	0.3	13.70		72.4°C	
Formic Acid	3.75	10.25		100.7°C	
Acetic Acid	4.75	9.25		116.0°C	
Carbonic Acid	6.37	7.63		-	
Bases					
Ammonia	9.25	4.75		-33.35°C	
Methylamine	10.81	3.19		16.6°C	
Ethylamine	10.66	3.34		-6.3°C	
Triethylamine	11.01	2.99		89.3°C	
Buffers					
Ammonium Formate			3.0-5.0		120°C
Pyridinium Formate			3.0-5.0		
Ammonium Acetate			3.8-5.8		111°C
Ammonium Carbonate			5.5-7.5 and 9.3-11.3		
Ion-Pair Reagents					
Pentafluoropropionic acid	~0.6			97°C	
Heptafluorobutyric Acid	~0.6			120°C	
Nonafluoropropionic acid	~0.6			140°C	
Pentadecafluorooctanoic acid	~0.6			189°C	
Tridecafluoroheptanoic acid	~0.6			175°C	