

Advanced Chemistry- Amino Acid Handout

pK _a values of Common Amino Acids				
Amino Acid	α -COOH pK _a	α -NH ₃ ⁺ pK _a	R to R ⁻ pK _a	R ⁺ to R pK _a
Alanine	2.4	9.7		
Arginine	2.2	9.0		12.5
Asparagine	2.0	8.8		
Aspartic Acid	2.1	9.8	3.9	
Cysteine	1.7	10.8	8.3	
Glutamic Acid	2.2	9.7	4.3	
Glutamine	2.2	9.1		
Glycine	2.3	9.6		
Histidine	1.8	9.2		6.0
Isoleucine	2.4	9.7		
Leucine	2.4	9.6		
Lysine	2.2	9.0		10.5
Methionine	2.3	9.2		
Phenylalanine	1.8	9.1		
Proline	2.1	10.6		
Serine	2.2	9.2		~13
Threonine	2.6	10.4		~13
Tryptophan	2.4	9.4		
Tyrosine	2.2	9.1	10.1	
Valine	2.3	9.6		