

## APPENDIX A

**Table A** Values of t for  $\nu$  Degrees of Freedom for Various Confidence Levels

$\nu$	Confidence Level, %			
	90	95	99	99.5
1	6.314	12.706	63.657	127.32
2	2.920	4.303	9.925	14.089
3	2.353	3.182	5.841	7.453
4	2.132	2.776	4.604	5.598
5	2.015	2.571	4.032	4.773
6	1.943	2.447	3.707	4.317
7	1.895	2.365	3.500	4.029
8	1.860	2.306	3.355	3.832
9	1.833	2.262	3.250	3.690
10	1.812	2.228	3.196	3.581
15	1.753	2.131	2.947	3.252
20	1.725	2.086	2.845	3.153
25	1.708	2.060	2.787	3.078
$\alpha$	1.645	1.960	2.576	2.807

Source : Christian, G.D., Analytical Chemistry, 3<sup>rd</sup> ed., John Wiley&Sons, New York, 1980, p.71.

## APPENDIX B

Radii in Angstrom units ( $\text{\AA}$ ) of selected atoms and ions.

F	0.64	F <sup>-</sup>	1.36
Cl	0.99	Cl <sup>-</sup>	1.81
Br	1.14	Br <sup>-</sup>	1.95
Mg	1.60	Mg <sup>2+</sup>	0.65
Ca	1.97	Ca <sup>2+</sup>	0.99
Sr	2.15	Sr <sup>2+</sup>	1.13

NO<sub>2</sub><sup>-</sup> 1.55 , NO<sub>3</sub><sup>-</sup> 1.89 , SO<sub>4</sub><sup>2-</sup> 2.39 and PO<sub>4</sub><sup>3-</sup> 2.38

Sources : 1. Wall Chart entitled "Relative Sizes of Atoms and Ions in the Periodic Table", Sargent-Welch Scientific Co., 1970.

2. Shriver, D.F., Atkins, P.W. and Longford, C.H., Inorganic Chemistry, Oxford University Press, Oxford, 1994, p.173.

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