

**Chemistry 205 – Inorganic Chemistry I**  
**Exam 1 (April 12, 2002)**

Partial credit will be given for work shown. The answer by itself is not satisfactory for full credit.

**Academic Honesty Policy:** Intentionally using or attempting to use unauthorized materials, information or study aids in any academic exercise, OR intentionally or knowingly helping or attempting to help someone else to commit an act of academic dishonesty, such as knowingly allowing another to copy information during an examination or other academic exercise constitutes Academic Dishonesty and is **punishable with a possible grade of F** in this course!!!

Periodic Table

<b>IA</b>																	<b>0</b>																												
1 <b>H</b> 1.008																	2 <b>He</b> 4.003																												
<b>IIA</b>												<b>IIIA</b>	<b>IVA</b>	<b>VA</b>	<b>VIA</b>	<b>VIIA</b>																													
3 <b>Li</b> 6.941	4 <b>Be</b> 9.012											5 <b>B</b> 10.81	6 <b>C</b> 12.01	7 <b>N</b> 14.01	8 <b>O</b> 16.00	9 <b>F</b> 19.00	10 <b>Ne</b> 20.18																												
11 <b>Na</b> 22.99	12 <b>Mg</b> 24.31											13 <b>Al</b> 26.98	14 <b>Si</b> 28.09	15 <b>P</b> 30.97	16 <b>S</b> 32.06	17 <b>Cl</b> 35.45	18 <b>Ar</b> 39.95																												
		<b>IIIB</b>	<b>IVB</b>	<b>VB</b>	<b>VIB</b>	<b>VII B</b>	<b>VIII B</b>			<b>IB</b>	<b>IIB</b>																																		
19 <b>K</b> 39.10	20 <b>Ca</b> 40.08	21 <b>Sc</b> 44.96	22 <b>Ti</b> 47.90	23 <b>V</b> 50.94	24 <b>Cr</b> 52.00	25 <b>Mn</b> 54.94	26 <b>Fe</b> 55.85	27 <b>Co</b> 58.93	28 <b>Ni</b> 58.70	29 <b>Cu</b> 63.55	30 <b>Zn</b> 65.38	31 <b>Ga</b> 69.72	32 <b>Ge</b> 72.59	33 <b>As</b> 74.92	34 <b>Se</b> 78.96	35 <b>Br</b> 79.90	36 <b>Kr</b> 83.80																												
37 <b>Rb</b> 85.47	38 <b>Sr</b> 87.62	39 <b>Y</b> 88.91	40 <b>Zr</b> 91.22	41 <b>Nb</b> 92.91	42 <b>Mo</b> 95.94	43 <b>Tc</b> (98)	44 <b>Ru</b> 101.1	45 <b>Rh</b> 102.9	46 <b>Pd</b> 106.4	47 <b>Ag</b> 107.9	48 <b>Cd</b> 112.4	49 <b>In</b> 114.8	50 <b>Sn</b> 118.7	51 <b>Sb</b> 121.8	52 <b>Te</b> 127.6	53 <b>I</b> 126.9	54 <b>Xe</b> 131.3																												
55 <b>Cs</b> 132.9	56 <b>Ba</b> 137.3	57 * <b>La</b> 138.9	72 <b>Hf</b> 178.5	73 <b>Ta</b> 180.9	74 <b>W</b> 183.9	75 <b>Re</b> 186.2	76 <b>Os</b> 190.2	77 <b>Ir</b> 192.2	78 <b>Pt</b> 195.1	79 <b>Au</b> 197.0	80 <b>Hg</b> 200.6	81 <b>Tl</b> 204.4	82 <b>Pb</b> 207.2	83 <b>Bi</b> 209.0	84 <b>Po</b> (209)	85 <b>At</b> (210)	86 <b>Rn</b> (222)																												
87 <b>Fr</b> (223)	88 <b>Ra</b> (226.0)	89 ** <b>Ac</b> (227)	104 <b>Rf</b>	105 <b>Ha</b>	106 <b>Unh</b>	107 <b>Uns</b>	108	109 <b>Uue</b>																																					
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>* 58 <b>Ce</b> 140.1</td> <td>59 <b>Pr</b> 140.9</td> <td>60 <b>Nd</b> 144.2</td> <td>61 <b>Pm</b> (145)</td> <td>62 <b>Sm</b> 150.4</td> <td>63 <b>Eu</b> 152.0</td> <td>64 <b>Gd</b> 157.3</td> <td>65 <b>Tb</b> 158.9</td> <td>66 <b>Dy</b> 162.5</td> <td>67 <b>Ho</b> 164.9</td> <td>68 <b>Er</b> 167.3</td> <td>69 <b>Tm</b> 168.9</td> <td>70 <b>Yb</b> 173.0</td> <td>71 <b>Lu</b> 175.0</td> </tr> <tr> <td>** 90 <b>Th</b> 232.0</td> <td>91 <b>Pa</b> (231)</td> <td>92 <b>U</b> 238.0</td> <td>93 <b>Np</b> (244)</td> <td>94 <b>Pu</b> (242)</td> <td>95 <b>Am</b> (243)</td> <td>96 <b>Cm</b> (247)</td> <td>97 <b>Bk</b> (247)</td> <td>98 <b>Cf</b> (251)</td> <td>99 <b>Es</b> (252)</td> <td>100 <b>Fm</b> (257)</td> <td>101 <b>Md</b> (258)</td> <td>102 <b>No</b> (259)</td> <td>103 <b>Lr</b> (260)</td> </tr> </table>																		* 58 <b>Ce</b> 140.1	59 <b>Pr</b> 140.9	60 <b>Nd</b> 144.2	61 <b>Pm</b> (145)	62 <b>Sm</b> 150.4	63 <b>Eu</b> 152.0	64 <b>Gd</b> 157.3	65 <b>Tb</b> 158.9	66 <b>Dy</b> 162.5	67 <b>Ho</b> 164.9	68 <b>Er</b> 167.3	69 <b>Tm</b> 168.9	70 <b>Yb</b> 173.0	71 <b>Lu</b> 175.0	** 90 <b>Th</b> 232.0	91 <b>Pa</b> (231)	92 <b>U</b> 238.0	93 <b>Np</b> (244)	94 <b>Pu</b> (242)	95 <b>Am</b> (243)	96 <b>Cm</b> (247)	97 <b>Bk</b> (247)	98 <b>Cf</b> (251)	99 <b>Es</b> (252)	100 <b>Fm</b> (257)	101 <b>Md</b> (258)	102 <b>No</b> (259)	103 <b>Lr</b> (260)
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