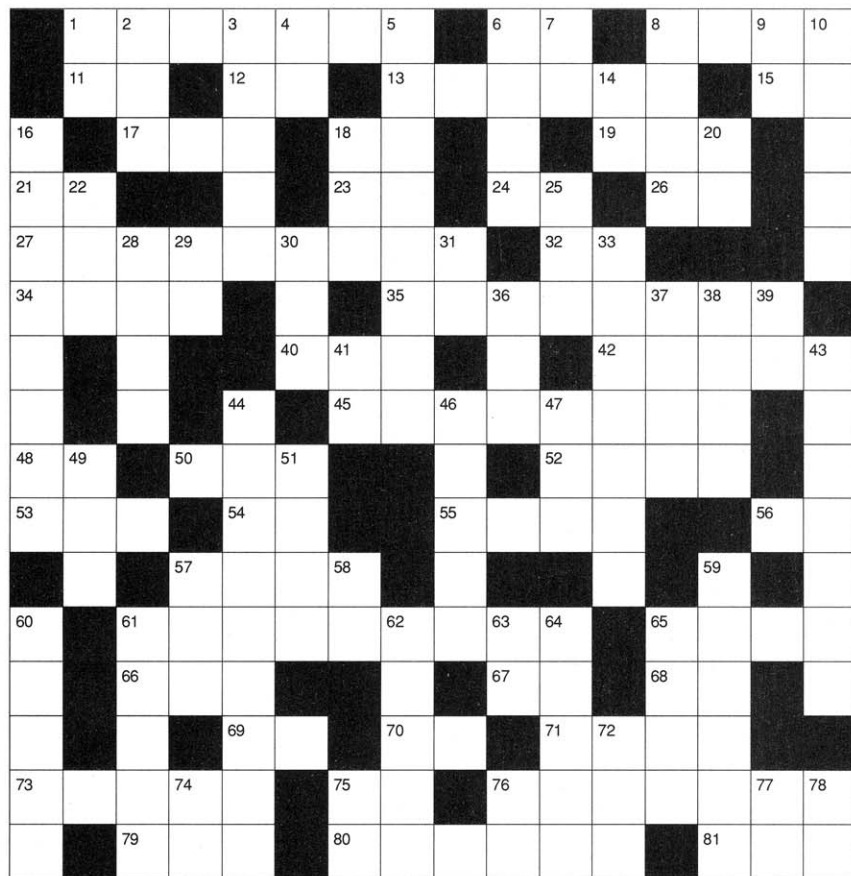


General Chemistry Crossword Puzzle

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The following crossword puzzle is an example of a number that I have prepared for general and organic chemistry. They have been useful as extra credit projects, and I would be pleased to share them with other instructors.



65. Location of University of Minnesota.
66. Anion containing oxygen is an ____ anion.
67. Fourth period metalloid, a very important semiconductor material.
68. Metal whose oxide occurs naturally as ruby or sapphire.
69. Third period metalloid, a very important semiconductor material.
70. Abbreviation indicating presence of water.
71. Mm Hg
73. The top of an em wave.
75. After noon.
76. Mass divided by volume.
79. Response to question, "Is chemistry necessary?"
80. To have a great desire (to learn chemistry!).
81. To chatter or talk excessively about trivia during lab periods.

Down

1. The most unstable of the first 101 elements.
2. Unit of electrical resistance.
3. Pertaining to a solution containing one mole of solute.
4. Objective case of first person plural pronoun. Example: Inhalation of carcinogens is unhealthy for ____.
5. Eighteenth century Italian physicist who determined the number of molecules in a mole.
6. Wavelength of light more energetic than green but less than indigo.
7. A metal with properties similar to iron and osmium.
8. To change from solid to liquid state.
9. A common metal with +4, +2 oxidation numbers.
10. Least mobile state of matter.
14. Metal found in almost all ultra high strength steel.
16. Force applied on a surface.
18. Resinous bug secretion used for making shellac.
20. Prefix meaning two.
22. Abbreviation for unit of electric current in the mks system.

Across

1. Symbolic representation of chemical composition.
6. Liquid halogen at room temperature.
8. Measure of a body's resistance to acceleration.
11. Element used in homogeneous hydrogenation catalysis.
12. Extremely toxic element, [Xe] 6s² 5d⁶.
13. The size or extent of a region of space or three-dimensional object.
15. Element named after Alfred Nobel, discoverer of dynamite.
17. Abbreviation of mole.
18. Interjection denoting surprise. Example: ____ and behold.
19. Adjective used to describe a lab in use since 1900.
21. Element discovered in 1898 by Pierre and Marie Curie.
23. Metal with highest thermal and electrical conductivity.
24. Lanthanide with six stable and nine radioactive isotopes; its oxide has been used for pink ceramics glazes.
26. 3d element used to make alloys for aircraft and missiles where ability to withstand extremes of temperature is important.
27. That formula that has the simplest whole number ratio of elements.
32. Electromagnetic radiation of next higher energies than the visible.
34. Mark on a surface differing sharply in color from the surroundings.
35. Adjective describing a molecule containing two atoms.
40. Neither P ____ Se are metalloids.
42. Phonetic spelling of second name of Julius Meyer, who made one of the first periodic tables.
45. The smallest unit of a covalent compound that retains the properties of the compound.
48. Seventh 4d element, used in homogeneous hydrogenation catalysis.
50. Tuber rich in vitamin A.
52. City in Iowa where Iowa State University is located.
53. An indefinitely long period of time.
54. [Ar] 4s² 3d².
55. A scholarly book of large size, such as a handbook of chemistry and physics.
56. Silver.
57. Compound composed of the cation of a base and anion of an acid.
61. 10⁻³ of the fundamental metric mass unit.

25. A fixed routine of thought or action nonconductive to good chemical research activity.
28. Prefix meaning many.
29. Third person singular neuter pronoun. Example: _____ is not a good idea to smoke.
30. Charged atom or group of atoms.
31. Metal with lowest atomic number.
33. Size or extent of regions of space.
36. Suffix indicating salt of oxy acid ending with ic.
37. The number of particles found in exactly 12 g of C-12.
38. Plural of suffix indicating salt of oxy acid ending with ous.
39. Metal ion important in composition of bones.
41. Soviet river with H₂O flowing west from Siberia 450 miles to join the Irtysh River.
43. Substance used to detect, measure, analyze, or produce other substances.
44. Chemicals used to change the rates of chemical reactions.
46. 1.06 qt.
47. A multiply-curved wheel mounted on a rotating shaft.
49. Adjective describing condition of substance to which many calories of heat have been added.
51. 10⁻³ dollar.
57. The number to which the prefix hexa applies.
58. Element with two 3d electrons.
59. Mnemonic device to remember, "oxidation is loss; reduction is gain".
60. To undergo chemical change.
61. One reward for which chemists work.
62. Plural of fundamental metric unit of mass.
63. Element for which the Latin word is argentum.
64. Fundamental metric unit of length.
65. Planet with mass 0.15 that of Earth, the "red planet".
72. All isotopes of hydrogen have _____ proton.
74. Element with properties similar to S.
75. Actinide with two 5f electrons.
76. Prefix meaning two.
77. [Xe] 4f¹⁴ 5d³ 6s².
78. Lanthanide named after Ytterby, a village in Sweden.