

Program: Chemtutor Series
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Publisher: Data Systems
Equipment needed: TI 99/4A console and monitor
cassette recorder and cables or
disk drive and disk controller
Extended BASIC module

Loading Instructions:

Place the Extended Basic module into the computer, and choose the Extended Basic option when turning the computer on. If using cassette, type OLD CSI and follow the instructions given on the screen. After the program is loaded, type in RUN and press enter.

If using diskette, type RUN "DKS1.CHEMTUTOR_" (Enter the number of the chemtutor program instead of the _). The program will run in a few seconds.

Chemtutor is intended to be used to support teaching. It enables the student to get ample practice in a topic currently being studied or as review. It releases the teacher from assigning problems and checking answers so that more time can be given to instruction.

In the home, Chemtutor proves to be a 'library' invaluable to students in all grades which can be referred to at any time to keep in practice with the essentials of basic chemistry.

Every effort has been made to keep the package as simple to use as possible. Select, from the enclosed list, the diskette or cassette containing the topic desired. The TI manual gives further instructions on loading the computer if necessary.

WARRANTY DISCLAIMER

The programs sold have been extensively checked and tested. Although we are confident that there are no significant bugs in the programs supplied, Data Systems makes no warranty, expressed or implied, concerning the software. However, should you encounter something that appears to be a bug, we will attempt to correct it. Please send a letter describing the problem, and include a self-addressed stamped envelope.

Chemtutor Series Programs

- CHEMTUTOR 1 Names and Symbols
-given name of element give symbol
-given symbol, give name of element
-given radical name, give formula
-given formula, give radical name
-given radical or element, give oxidation state
- CHEMTUTOR 2 Electron Configurations
-given an element, user must enter the correct ground state electron configuration
- CHEMTUTOR 3 Solubilities
-given compound, user must enter whether it is soluble in water
-given two compounds, user must determine what compound will fall out of aqueous solution (if any)
- CHEMTUTOR 4 Ideal Gas Laws
-review of ideal gas laws
-problems using the ideal gas law
- CHEMTUTOR 5 General Gas Laws
-review of the three gas laws listed below
-problems using the van der Waals equation
-problems using the Virial equation
-problems using the Redlich & Kwong equation
-finding the constants used in the above equations
- CHEMTUTOR 6 State Changes: Boiling/ Freezing/ Sublimation
-review of state changes
-use of heating (or cooling) curves
-use of phase diagrams
- CHEMTUTOR 7 Electronegative Potentials
-review of chemical cells using the Daniel cell
-problems in finding the voltage put out by different types of chemical cells
- CHEMTUTOR 8 Basic Thermodynamics
-review of heat capacities, first law
-problems involving enthalpy changes

In each program it is possible for the user to select the number and type of questions to be asked, and at the end of each session, the computer will evaluate the average number of correct responses. No experience with computers is necessary to run the programs, as they are completely self explanatory.

Thank you for purchasing software from Data Systems. If you would like a copy of our catalogue of software for the TI 99/4A or IBM PC (or MS DOS compatible) computers, please call or write us. We hope you continue to use and enjoy our software products.