

CHEMISTRY RESOURCES

Compiled by Jim Hebden, Kamloops Secondary School. Updated February 9, 2003

Chemistry teachers, and especially new Chemistry teachers, frequently find themselves looking for new ideas, and occasionally ANY idea to help illustrate a point, catch students attention or simply provide a change of pace. In addition, many new teachers look wistfully at the meagre resources they have at hand and wonder where to start finding good resources. The following lists have been compiled with new Chemistry teachers in mind, but "old hands" will probably find some new and useful material in the lists. Enjoy!

Part A : GENERAL RESOURCES

1. **Handbook of Chemistry and Physics**, (most recent edition) Chemical Rubber Publishing Company. Order from publisher, or from Sargent Welch: WLS-8206 \$150.59. ABSOLUTELY ESSENTIAL!
2. **The Merck Index** (most recent edition), Merck and Co. Ltd. Order from Sargent Welch: WLS-8206-80 \$59.69. VERY HIGHLY RECOMMENDED. Gives additional properties not found in the Handbook of Chem and Physics.
3. **Journal of Chemical Education**. (A monthly journal) Available from: Journal of Chemical Education, Subscription and Book Order Dept., 1991 Northampton Street, Easton PA 18042-3189. Phone: 1-(610)-250-2264. ESSENTIAL FOR ANY CHEMISTRY TEACHER!
For yourself: 1 yr = US\$45, 2 yr = US\$85, 3 yr = US\$125
For your school: 1 yr = US\$90, 2 yr = US\$170, 3 yr = US\$250
4. **Chem 13 News**. Mailing address: CHEM 13 NEWS, Department of Chemistry, University of Waterloo, Waterloo, ONT N2L 3G1 Phone: 519-888-4567, ext 2505; fax 519-746-0435. AN OUTSTANDING RESOURCE FOR CHEMISTRY TEACHERS
Payment in Canadian funds: 1 year = \$11.00, 2 years = \$21.00, 3 years = \$30.00
Back issues cost \$2.00 each. Bound reprints covering 1972-75 (\$22.00) and 1975-78 (\$24.00) are available. Prices include 7% GST.
5. **Micro Chemistry Series**: teach numerous concepts with mere drops of reactants. Order from NorthWest Scientific. GOOD
Micro Chemistry I 17-9310 \$30.00
Micro Chemistry II 17-9311 \$30.00
Micro Chemistry III 17-9312 \$30.00
Micro Chemistry Teacher's Guide 17-9309 \$39.00

Part B : SOURCES OF SPECIAL SCIENCE EQUIPMENT

Educational Innovations, 151 River Road, Cos Cob, CT 06807 U.S.A. Phone: 203-629-6049; fax: 203-629-2739. This is an incredible source of highly affordable science equipment, toys, gadgets and neat stuff you won't find anywhere else. Ask them for a catalogue.

Flinn Scientific, Inc., 131 Flinn St., Batavia, IL 60510. (630)-879-6900. Ask for their catalogue. The catalogue gives detailed information on hazards, handling and disposal of chemicals, in addition to large numbers of unique teaching supplies. A gold mine of information!

Part C : DEMONSTRATIONS

1. **Tested Demonstrations** (new edition). Order from: G.L. Gilbert, TD-Text, Denison University, Granville, OH 43023. \$66 in US funds payable to: TD-Denison University. HIGHLY RECOMMENDED
2. **Chemical Demonstrations: A Handbook for teachers of Chemistry**. Volumes 1-4, Bassam Z. Shakhashiri. THE BEST BOOKS OF CHEMICAL DEMONSTRATIONS EVER PUBLISHED! Order from Sargent Welch: volume 1 WLS-8209-50A \$41.39
volume 2 WLS-8209-50B \$41.39

volume 3 WLS-8209-50C \$41.39
volume 4 WLS-8209-50D \$41.39

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3. **Chemical Demonstrations: A Sourcebook for Teachers**, Volumes 1 & 2, Lee R. Summerlin et al. EXCELLENT! Order from Sargent Welch: volume 1 WLS-8209-20 \$38.69
volume 2 WLS-8209-30 \$38.59
4. **Chemical Activities, Teacher Edition**, Christie L. Borgford and Lee R. Summerlin. Order from Sargent Welch: WLS-8209-10 \$34.49. EXCELLENT!
5. **Idea Bank Collation: A Handbook for Science Teachers**. Irwin Talesnick, published by: S17 Science Supplies and Services Co. Ltd. Box 1591 Kingston, Ont. K7L 5C8. 1-(613)-544-6548. Very good, but somewhat dated; covers all science fields, including junior & senior levels
6. **A Demo A Day: A Year of Chemical Demonstrations**, Borislav Bilash II, George R. Gross, John K. Koob. OUTSTANDING! Order from Flinn Scientific, Inc., 131 Flinn St., Batavia, IL 60510. (630)-879-6900 \$33.95 (US). OUTSTANDING!
7. **A Demo A Day, Volume 2: Another Year of Chemical Demonstrations**, Borislav Bilash II, George R. Gross, John K. Koob. Order from Flinn Scientific, Inc., 131 Flinn St., Batavia, IL 60510. (630)-879-6900 \$35.95 (US). OUTSTANDING!
8. **Twenty Demonstrations Guaranteed to Knock Your Socks Off!** By Bob Becker. Order from Flinn Scientific, Inc., 131 Flinn St., Batavia, IL 60510. (630)-879-6900. \$12.95 (US). OUTSTANDING!
9. **Twenty Demonstrations Guaranteed to Knock Your Socks Off! Volume II**, by Bob Becker. Order from Flinn Scientific, Inc., 131 Flinn St., Batavia, IL 60510. (630)-879-6900. \$14.95 (US). OUTSTANDING!
10. **Chemical Curiosities: Spectacular Experiments and Inspired Quotes**, by Roesky and Mockel (Translated by Mitchell and Russey, 1996), John Wiley and Sons Canada, 22 Worcester Road, Etobicoke, ON M9W 1L1 ; ISBN 3-527-29414-7. \$62.00. Loaded with outstanding demonstrations you won't find anywhere else.
11. **Invitations to Science Inquiry**, by Tik L. Liem, Science Inquiry Enterprises, 14358 Village View Lane, Chino Hills, CA 91709 ; \$72.50 (US) A superb collection of excellent, but dated, demos
12. **Crime Scene Investigations**, Centre for Applied Research Ed (CARE), 110 Brookhill Drive, West Nyack, New York 10995 ; \$45 (US) INCREDIBLE! Uses forensics to make Biology, Chemistry, Physics, Earth Science and Geology a "MUST DO" experience for students in grades 6-12.
13. **A Demo A Day – A Year of Physical Science Demonstrations**, B. Bilash, G. Gross and J. Koob. Order from Flinn Scientific, Inc., 131 Flinn St., Batavia, IL 60510. (630)-879-6900 \$35.95 (US) OUTSTANDING
14. **A Demonstration-A-Day ... for high school chemistry**, Mike McMillan. Order from Boreal Laboratories, catalog #45534-00, \$59.00. Not great stuff, but has some good ideas.
15. **Chemistry Demonstration Aids That You Can Build**, Mattson, Kubovy, Hepburn and Lannan. Order from Flinn Scientific, Inc., 131 Flinn St., Batavia, IL 60510. (630)-879-6900 \$14.95 (US) Get this one, it's a MUST HAVE!
16. **Chemical Magic**, 2nd ed., Leonard A. Ford; Dover Publications, N.Y. ISBN 0-486-67628-5. Price unknown. A delightful little book full of old-but-still-marvellous demonstrations. Strongly recommended.
17. **75 Easy Chemical Demonstrations**, Thomas Kardos. Order from Northwest Scientific Supply Ltd., catalog # 298-7740. \$29.95. Simple and not very original stuff. Pass on this one.

18. **Chem 13 News**, November 1976. Contact Jim Hebden to get a copy. This is a special edition that featured 20 pages of great demonstrations. A must have!

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19. **Bargain Demos in Chemistry**, Betty Bridges, S17 Science Supplies and Services, 57 Glen Cameron Road, Unit 6, Thornhill, Ontario L3T 1P3, 1-800-288-7151, fax: (905)-709-2040, \$18.00. 75 easy demonstrations using readily-available materials. Most are more suitable for junior grades but some can be used in Chem 11 and 12.
20. **101 Intriguing Labs, Projects and Activities for the Chemistry Classroom**, Brian Rohrig, S17 Science Supplies and Services, 57 Glen Cameron Road, Unit 6, Thornhill, Ontario L3T 1P3, 1-800-288-7151, fax: (905)-709-2040, \$20.85. An enjoyable grab-bag of easy-to-do stuff, including take-home experiments, mini-labs and quick demonstrations.
21. **150 Captivating Chemistry Experiments Using Household Substances**, Brian Rohrig, S17 Science Supplies and Services, 57 Glen Cameron Road, Unit 6, Thornhill, Ontario L3T 1P3, 1-800-288-7151, fax: (905)-709-2040, \$29.70. Simple experiments that can frequently be done as demonstrations. Many are "old classics" but the book is a useful compilation.
22. **150 More Captivating Chemistry Experiments Using Household Substances**, Brian Rohrig, S17 Science Supplies and Services, 57 Glen Cameron Road, Unit 6, Thornhill, Ontario L3T 1P3, 1-800-288-7151, fax: (905)-709-2040, \$39.00. Simple experiments that can frequently be done as demonstrations. Many are "old classics" but the book is a useful compilation.
23. **Vacuum Bazookas, Electric Rainbow Jelly, and 27 Other Saturday Science Projects**, Neil A. Downie, Media, 28 Slocum Pl., Long Island NJ 07740, 1-800-370-3010, \$18.95 (US). An incredible collection of off-the-wall projects for students, most of which relate to physics. The project "Electric Rainbow Jelly" is a beautiful demonstration.
24. **Classic Chemistry Demonstrations**, Ted Lister, Education Division of The Royal Society of Chemistry, distributed by Springer-Verlag New York, Inc., 175-5th Ave. New York, NY 10010, 1-800-777-4643, \$69.95 (US). This is the book used in Great Britain as part of the national curriculum. Excellent collection of "classic" demonstrations.
25. **Classic Chemistry Experiments**, Kevin Hutchings, Education Division of The Royal Society of Chemistry, distributed by Springer-Verlag New York, Inc., 175-5th Ave. New York, NY 10010, 1-800-777-4643, \$69.95 (US). This is the book used in Great Britain as part of the national curriculum. Excellent collection of "classic" experiments, some of which can be done as demonstrations.