

# CHEM GEMS AND JOULES

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Have you ever considered teaching your chemistry courses without requiring your students to have a textbook? Textbook publishers would likely not be happy. And students may have mixed feelings. On one hand, they would save about \$125.00, on the other hand, from what are they going to study? They might feel naked without a textbook; I would. Teaching without textbooks is exactly what some high school, college and university instructors are doing.

One of the readers of Chem Gems and Joules recently asked a representative of Trivedi Technology Innovations International (T2I2) to contact me regarding T2I2's general chemistry DVD-ROM, a product used by some instructors in lieu of or as a supplement to their textbook. T2I2's general chemistry product is an interactive DVD that covers all of the topics typically taught in general chemistry. The DVD contains over 1000 hours of instruction and self-testing. The lectures are interactive; students can easily rewind and repeat material not understood, skip to content they want to review using the glossary and searchable index, and the lectures contain interactive problems and multiple choice practice problems (with time management) allowing students to self-test their understanding of a concept. Each

chapter contains printable notes. The DVD contains 3-D models, animations, and video demonstrations of chemical reactions. To aid presentation of the DVD material, the developers used 109 different voices. The DVD contains many other useful features, which you can read for yourself at <http://www.t2i2edu.com/>

I certainly don't mean this as an advertisement for T2I2. I chose to write about this product because it appears to me that this DVD is a totally unique tool that you might want to investigate for use in your courses. I believe this product goes way beyond the supplementary material that comes with most chemistry textbooks.

The product was developed by Drs. Kelan Trivedi and Hervé Marand, both of the Department of Chemistry at Virginia Tech. T2I2 is receiving very positive feedback from students and other teachers who have used this product. The DVD is being used in general chemistry courses at Virginia Tech, Columbia University, and Seton-Hall among other universities; it is also finding use in high school AP chemistry courses. A T2I2 representative claims that general chemistry sections at Virginia Tech that use this DVD score as a class 19% better than sections that use the traditional textbook rather than the DVD.

I envision many ways this product could be used. An instructor could require the DVD (it sells for \$39.99) and no textbook. An instructor could give students a choice between a textbook and the DVD. The DVD could be used to supplement a textbook. Or it could be utilized in a campus computer lab.

I find the DVD option appealing for many reasons; many students don't read their textbooks and they might be more likely to use a DVD considering that we now live in a highly electronic world, the DVD is much more affordable than a textbook, many students learn better by listening and watching rather than reading, and students can get instant feedback on problem solving. Of course, one could argue that a solutions manual provides instant feedback but I don't think it's quite the same. I suspect that most students would be open to using the DVD; the most likely obstacle to change is an instructor. I am certainly most comfortable doing things the way that I have always done them, and I haven't been a teacher for very long! But if I am ever going to reach the other 30-40% of my students, perhaps I need to try something new. I will certainly give serious consideration to using this DVD here at TAMU-C. I encourage you to learn about this product, read the testimonials, and above all, help me identify ways that we can all improve our ability to teach chemistry.

*Material for this column should be sent to Stephen Starnes at the Department of Chemistry, Texas A&M-Commerce, P.*

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## May/June Deadlines/Postal Adventures

The deadlines for material for our last issue of the academic year, the May/June issue, will be May 22. This will allow for reporting of late breaking events. The March issue was mailed around Mar. 29. Most local subscribers received their magazines on Mar. 31. This is exactly as it should be, for second class mail should be delivered in two to three days. Contrast this with the February issue, which was mailed about seven days before the end of the month. Most local subscribers received their magazines a few days into March. Go figure!

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