



Learning by Accident

Learning by Accident is a new Crucible feature, in which real-life lab accidents are recounted and explained. The goal is to highlight the consequences of ignoring safety rules – so that science educators will be further encouraged to become knowledgeable in areas of safety that affect their daily activities in the science classroom. Submissions are encouraged. If requested, anonymity will be guaranteed.

I was in second year co-op chemistry at the University of Waterloo. The class was inorganic chemistry, and we were synthesizing some organometallic compound. This was one of those laboratories where special caution was urged throughout the experiment. It was near the end of the laboratory period, and I had just gone to the storeroom either to sign out or to return some equipment. I returned to the sight of water gushing throughout the hallway from the laboratory. Someone had pulled the cord to the safety shower. One of the students had been cleaning his glassware. It was difficult to clean,

« « « « **By Ray Clement, STAOCom Chair**

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and required a combination of organic solvents and acid – but not at the same time! The student had added acid to glassware which still contained residual solvent, and concentrated acid flashed back into his face! For many weeks you could see scars around his face, showing the exact outline of where his safety glasses had been. Due largely to this incident, I'll never forget the importance of safety glasses when working around corrosive chemicals.

Questions for discussion

1. What may have happened if the student had not been wearing his safety glasses?
2. What was the main cause(s) of this accident, and how could it have been prevented?
3. What would you do if chemicals were splashed in your eye?



A variety of safety publications are currently available through the STAO store and safety committee. Contact Ian MacKellar (see ad at top of pg. 37 for details) for an order form.

Did you know?

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| 1) Science Emergency & Safety Procedures by STAO Safety Committee (1994) | \$10.00 |
| 2) Science Laboratory General Safety Practices by STAO Safety Committee (1998) | \$15.00 |
| 3) Science Laboratories Facilities Design Guide by STAO Safety Committee (1999) | \$30.00 |
| 4) Chemical Storage Provision for School Science Laboratories (1999) | \$10.00 |

REQUEST!!

Learning by Accident

Over many years the STAO Safety Committee has attempted to provide the best available advice on safety matters for Ontario science educators. However, for many science teachers the infrequency of laboratory accidents makes them seem unlikely and, indeed, often results in complacency. Yet, each of us is probably familiar with one or more serious – or potentially serious – laboratory accidents with which we have had either direct involvement or intimate knowledge. The sharing of these experiences could heighten the awareness of others of the dangers in the science laboratory.

Accordingly, the Safety Committee would like to encourage STAO members to write a brief description of any serious laboratory accident(s) with which they are familiar. In your article, please answer the questions: Who? What? When? Where? and Why? Please send written descriptions to **Ian MacKellar, STAO Safety Committee Chair, Box 191, MAITLAND, ON K0E 1P0** indicating if you wish to place any restriction on use (e.g. **anonymity will be guaranteed if requested**).

Assuming a positive response from members, forthcoming issues of *Crucible* will feature these real-life laboratory incidents (see story above) in order to help highlight the consequences of ignoring safety rules. Hopefully, as a result of this regular new *Crucible* article "Learning By Accident", all science educators will be further encouraged to become knowledgeable in areas of safety that affect their daily activities in the science classroom.