

Correction **FREE**



Physics Today **63** (6), 61 (2010);
<https://doi.org/10.1063/1.3455329>



CrossMark

so. When circumstances allow, I use a two-pen method of collaborative testing.

The method is simple. First, schedule approximately 50% more time for the exam than you think would be required to complete the test, and provide about twice the space you think the students might need to answer each question on the paper. Hand out pens of a particular color and brand that are not commonly used (for example, a particular shade of blue), and have the students commence to work on their exams individually. After the expected time of completion has elapsed, collect the first set of pens, and hand out pens of a different color. (I use red as the second color, then grade the exams in purple. Psychologists suggest that grading in red may carry problematic emotional baggage.)

When the students are armed with their new pens, the exam becomes a free-for-all collaborative event. Students can organize themselves as they prefer while they try to get the right answers to the problems. At last, the smartest student is also the most popular! The written answers reveal which errors they knew they made, and then their attempt to provide the right answer, in their own hand. Students don't get to leave early or hide their work.

Grading is easy: They get full credit for work in the first color and half credit

for correct work in the second. As you can imagine, they find most of their mistakes themselves and correct them, so I generally have much less work trying to figure out what they did wrong and how many points it should be worth. Students have told me that they leave the exam having figured out what they didn't understand, filled in the gaps, and strengthened their relationships with their peers. An easy win-win for a busy professor.

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Building for NCAR's future

We at the National Center for Atmospheric Research (NCAR) enjoyed the article "Laboratory Architecture: Building for an Uncertain Future" (PHYSICS TODAY, April 2010, page 40). However, we would like to correct a factual inaccuracy about our organization.

Although NCAR is planning construction of a new supercomputing center in Cheyenne, the project is still in the design and approval process; our operations remain in Boulder, Colorado, at this time.

The NCAR-Wyoming Supercomputing Center project is a collaborative partnership that is regionally valuable and offers the scientific community crit-

ical computing resources. NCAR weighed several location options and selected the Wyoming site because it combined the greatest increase in scientific benefits for the university community NCAR serves and the best value for taxpayer investment.

The founding vision of collaboration among scientists will remain a reality at the Mesa Lab, even if the supercomputing operations move. The significant changes in the NCAR computing facility will be in the length of the fiber-optic network, the greater efficiency of the new facility, and the 20-fold increase in computing power.

More information is available at <http://www.cisl.ucar.edu/nwsc>.

Roger Wakimoto

National Center for Atmospheric Research
Boulder, Colorado

Correction

April 2010, page 18—We should have stated that by 2007, mass-independent fractionation of mercury isotopes had been independently observed by several groups.¹

Reference

1. See, for example, T. A. Jackson et al., *Appl. Geochem.* **23**, 547 (2008); L. Laffont et al., *Environ. Sci. Technol.* **43**, 8985 (2009); B. A. Bergquist, J. D. Blum, *Elements* **5**, 353 (2009) and references therein. ■

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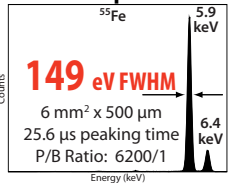
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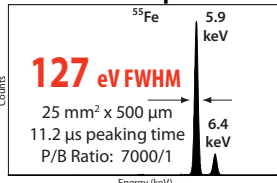
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Si-PIN Spectrum



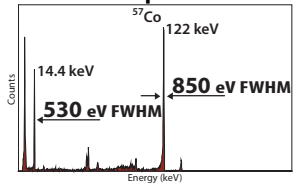
149 eV FWHM
 6 mm² x 500 μm
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SUPER SDD Spectrum



127 eV FWHM
 25 mm² x 500 μm
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 P/B Ratio: 7000/1

CdTe Spectrum

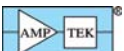


530 eV FWHM
 14.4 keV
 122 keV
 850 eV FWHM

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