

## Reporting Analytical Data

The integrity of science as a discipline rests on the ability of scientists to reproduce the claims of others. For organic chemistry, this requires that experiments be described in sufficient detail so a well-trained colleague can repeat published procedures with similar results. While none of the organic chemistry journals go to the same lengths as *Organic Syntheses*, where each procedure must be reproduced as described in an independent laboratory before publication, most ask that authors provide sufficient detail so that the procedures can be reproduced and provide sufficient data to establish the structures of new compounds that are reported. This information is necessary for the review process and for readers who want to base their experiments on published work.

*The Journal of Organic Chemistry* has been a leader among organic chemistry journals in establishing guidelines for authors to follow. New manuscripts are checked to make sure that the Compound Characterization Checklist is complete, and the supporting data are examined. In those cases where there are multiple inconsistencies with claims in the manuscript, authors are asked to provide copies of the appropriate original data. If this cannot be done, the manuscripts are deactivated and not submitted for review. In 2008, 15 manuscripts were deactivated because the authors were unable to provide original copies of reports for high-resolution mass spectra or combustion analyses. By June of 2009, 13 of these manuscripts had been published in other journals. In six cases, the original data were replaced by a new set that was consistent with the structures. In the other seven publications, the inconsistent data were left unchanged, were removed, or were replaced with another set of inconsistent data or data obtained by another analytical technique was substituted. Four of the manuscripts were submitted to other journals within only a few days after being deactivated by JOC.

While the number of manuscripts that JOC deactivated in 2008 because of unsatisfactory data and were subsequently published elsewhere was small, it is deeply disturbing that about a third of those authors chose to ignore the problems pointed out by JOC and submitted their manuscripts to other journals without adequately resolving the issues surrounding the data they originally reported. All of these manuscripts were submitted from academic institutions. The responsibility for this behavior clearly rests on the senior authors, who are setting a horrible example for their young colleagues.

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