



Chem!stry

Name: ()

Class:

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Case #9: Incorrect Data

Several years ago you published a paper interpreting the N.M.R. spectrum of a novel compound. Since that time you have been working with related compounds and have discovered that the earlier work is incorrect. You had missed an important clue, and the unusual spectral features resulted from a completely different phenomenon. You are discussing this discovery with some colleagues at lunch. One person suggests that you publish a retraction, arguing that you should not let errors persist in the literature. Another person tells you not to bother, saying, "There is plenty of incorrect science in the literature. One paper more or less won't matter." Whose suggestion should you take, or is there a third, and better course of action?

Taken from Kovac, J. (2004). *The Ethical Chemist: Professionalism and Ethics in Science*.

New Jersey: Pearson Prentice Hall. ISBN: 0-13-141132-2

Commentary: Incorrect Data

The issue in this case is whether you have an obligation to publish a correction or retraction of an article that you found to be incorrect. There is no allegation of fraud; it was a simple mistake that neither you nor the referees of the paper were able to detect. There are lots of papers like this in the scientific literature. In thinking about the right course of action, here are some questions to ask:

1. Who will be harmed or inconvenienced if you do not publish a retraction or correction? What types of harm might be caused by the incorrect information?
2. If you do publish a retraction, how will people know? Errata appear in a much later issue of a journal and often are not seen. Is there a better way to inform the scientific community of your error?
3. Has your error spread? Has your incorrect interpretation been incorporated into review articles or textbooks? Do you have an obligation to inform the authors of those publications of your action?
4. Should you consult with anyone, such as the editor of the journal, before proceeding?