

3.091 Fall Term 2009

Homework #9b

October 29 (to be **submitted** November 5)

This homework assignment is to be *typed, printed out, and TURNED IN* at recitation next week (Thursday Nov 5). This is an INDIVIDUAL assignment, please do not work in groups. It will be worth 5 points.

To complete this assignment, visit the library web page for 3.091, found at <http://libraries.mit.edu/3.091> or through the link on the 3.091 course page. Once you have viewed the videos, completing the assignment should not take longer than 30 minutes. If it is taking longer than 30 minutes to complete, please ask a librarian or your TA for help.

In 1987 J. Georg Bednorz and K. Alexander Müller of IBM Labs in Zürich were awarded the Nobel Prize in Physics for “their important break-through in the discovery of superconductivity in ceramic materials.” Visit nobelprize.org to gather more information on your Nobel Prize winning paper, including clues for locating the published article that announced their discovery.

1. Use Web Of Science (<http://libraries.mit.edu/get/webofsci>) to locate the article in which Bednorz and Müller announced this discovery to the world. Please provide a complete citation for the article in ACS Format.

Example: Author, A. B.; Author, C. D. Article Title. *Journal Title* **Year**, volume, (issue), page number range.

2. Look at the article found in question 1.
 - a. Do the MIT Libraries own this journal volume in print? If yes, in which library is it located, and what is its call number?
 - b. Is this article available online through the MIT Libraries?

NOTE: You do not have to go to the library and physically locate this journal to answer the question.

3. According to the article on superconducting in Van Nostrand's Scientific Encyclopedia¹, superconductivity was first discovered by H.K. Onnes in 1911. Did Bednorz and Müller cite/reference Onnes in their nobel prize winning article (from question 1)?
4. How many times has the Nobel Prize winning article by Bednorz and Müller been correctly cited by others?
5. How many times has the Nobel Prize winning article by Bednorz and Müller been cited by someone affiliated with MIT? How many of these articles, written by MIT authors, were REVIEW articles?

TIP: to find Onnes' article or other articles in the fields of physics, electronics, computing or control, use Inspec (<http://libraries.mit.edu/get/inspec>).

¹ *Van Nostrand's Scientific Encyclopedia*; Considine, G. D. Ed. Wiley-Interscience: New York, 2002.