LIBRARY ASSIGNMENT

This assignment is to be completed in the Chemistry Library at the University of Illinois in 170 Noyes Lab. Information about the chemistry library (including hours) can be found on its web page: http://www.library.uiuc.edu/chx. There will be a sheet for you to sign-in when you enter the library and sign-out when you leave. Please ask for the Parkland College sign-in sheet at the circulation desk. If you have any questions about how to perform a search, please ask one of the librarians at the library. They will be able to help you.

Reference format: When writing citations, use the ACS format (found in the ACS Style Guide). For journal articles, a citation should have the following format: Author, L. M. Journal, Year, volume, pages. The journal should be abbreviated; a list of abbreviations can also be found in the ACS Style Guide.

Don’t forget to sign-in! If you forget, you will receive a zero on this assignment.

Part I: Web of Science (Science Citation Index) (4 points)

Directions: Once on the web site, choose to search “topics”. Only use the Science Citation Index (all years).

A. Topic Search (Please limit your search to the science citation index.)

1.) Find the number of articles written about bisphenol A polymers. _________ (Use “bisphenol A polymers” as your topic)
   a. Write the citation for the article by Raditoiu, et. al on microwave assisted crosslinking.
      i. __________________________________________________________
      __________________________________________________________
      __________________________________________________________
   b. How many times is this article cited? _________ (See “Times Cited”)
   c. Find the number of related articles. _________ (Click on the article title, then on “view related records”)
   d. Find the number of articles that cite the article by Goldenberg, Kulikovsky, et. al.: _________ (See “Times Cited”)
   e. What is the title of the article by Goldenbery in Langmuir that cites the article by previous article by Goldenberg, Kulikovsky, et. al.? (Click on the number of “Times Cited”)
      i. __________________________________________________________
      __________________________________________________________

2.) Find the number of articles written about cancer prevention with green tea: _________
   (Perform a new search, use “effects of bisphenol A polymers on humans” as your topic)
Part II: SciFinder Web Version (Chemical Abstracts Online) (6 points)

You will need to register for the site to have access. You will be asked to give your name AND email. **You must** your Parkland email address: **jdoe1@stu.parkland.edu** and **your name must match that in the Parkland system**.

You will be asked to select a username and password – this is your choice, but make it something you can remember. You will be able to use this account to search the database all semester.

A. Research Topic Search

1.) Find the number of articles that are about bisphenol A polymers. (Use “bisphenol A polymers” as your topic.)
   
   a. Containing “bisphenol A polymers”. ____________
   
   b. Containing the concept of “bisphenol polymers”. ____________
   
   c. How do these numbers compare to the number of articles found in Part I, section A, question 1? ____________
   
   d. If the answer in part c is not “the same”, give two possible reasons for this discrepancy.
      
      i. ____________
      
      ii. ____________

2.) Refine your results to only those articles that also refer to the polymers effects on humans by selecting the containing “bisphenol A polymers” and containing the concept of “bisphenol polymers” results and clicking on “get references”. Click on the refine tab, then select “research topic.” Enter “effects on humans” and click on “Refine”.

   How many articles are returned? ________

3.) Now, do the same search for articles about the effects of bisphenol A polymers on humans by starting over as a new task (click on “Explore References”, then “research topic”) and use “effects of bisphenol A polymers on humans” as your research topic. Find the number of articles that are about the effects of bisphenol A polymers on humans.

   a. Articles with the two concepts closely associated: ________
   
   b. Articles containing both concepts: ________

4.) Select the closely associated articles and those containing both concepts and click on “get references.” Refine your results to only those articles in English by clicking on the refine tab, then language and selecting English.

   How many articles are returned? ________
B. Structure & Reaction Search (Click on Explore Reactions)

1.) How many articles are there on reactions producing an acid chloride? ________

(Build the following structure in the build view (click on image box to get here), click on the box in the tools menu (second column) then select your structure and select “product”. “Product” should now be under your structure. Select “reactions” and select “substructures of more complex structures” and click “OK”, then click on “search”.)

2.) How many of the above reactions start from a carboxylic acid? ________

(Click on “refine”, then select “reaction structure”. Click on the image and then build the following in the build view in front of your structure above. Add the reaction. You should now see the words “reactant/reagent” under the carboxylic acid and “product” under the acid halide. Click on “OK”, then “refine”.)

3.) What is the structure for bisphenol A? Draw it below: (“Explore Substances”, then “substance identifier.”)

4.) How many articles are there on bisphenol A? ________

(Select the structure, click on “get references”, then select “selected substance”, “all references”, and “additional, related references.”)

5.) How many articles are there on the reactions of bisphenol A? ________

(Click on “Substances(1)” to get back to the structure of bisphenol A. Now, click on “get reactions” and select “selected substances” and “reactant.”)

6.) How many of these articles are journal articles and how many are from patents? Click on “Analysis”, then “document type.”
   a. Journals: ________
   b. Patents: ________

7.) For more information about the patents, select “patent.” Now find the patent written by Maurice Marks. Click on the patent title to get more information about the patent.

What company submitted this patent? __________________________
Part III: Exploratory Search (3 points)

A. Perform one search on a possible research topic for your paper. You may use either SciFinder Scholar or the Science Citation Index to perform the search.

1.) What search engine did you use? __________________________

2.) What type of search did you perform? __________________________

3.) What key words did you use for your search? __________________________

4.) How many articles did you return? ____________

5.) Cite one article that you may possibly use in your research paper.
   i. ________________________________________________________

Part IV: Evaluation (2 points)

A. Which database did you prefer? ______________ Why? __________________________

B. What kind of search would be best suited to the Web of Science? __________________________

C. What kind of search would be best suited to SciFinder Scholar? __________________________