## The Alchemy of Air by Thomas Hager

Questions for Book: Answer the questions and resubmit this document to your instructor with the subject line: Alchemy of Air - your name - Ch. 6 - Ch. 7. Please save this document as AA\_03 \_your\_name

## **Chapter Six**

- 1. Why is the nitrogen molecule so unreactive?
- 2. Why is it that increasing the pressure in the reaction of nitrogen and hydrogen to produce ammonia the production of ammonia is favored? (This question should be answered by those students who have completed Chem 201)
- 3. Who was Walther Nernst and what were his contributions to chemistry?
- 4. What was the status of the chemical industry in Germany around 1910?
- 5. Fritz Haber married Clara Immerwahr. She was the first woman to ...



## **Chapter Seven**

- 1. Visit the following website: http://www.basf.com/group/about-basf/index and answer the question "Who is BASF?"?
- 2. Why did Otswald believe that the production of ammonia from nitrogen was especially important for Germany?
- 3. What approach was used first to try to convert nitrogen to a more usable form?
- 4. Haber's early research into the production of ammonia from nitrogen varied three factors. What were they?
- 5. BASF started in the dye industry. What raw material was used to produce synthetic dyes?
- 6. Where did the natural dye Indigo come from?
- 7. What characteristics made BASF successful in the late 1800s?
- 8. What two major competitors of BASF are mentioned in this chapter? What was their area of concentration?

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