Explanation of results, Citations and References, Translations [1-8]

References:

1. YDI339 Technical English For Chemical Engineers Ders Notları (2012)

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3. Öniz A.S. and Cross T.M. (1981)"Physical Science Reader Series" Volume I, Middle East Technical University Ankara, Turkey.

4. Glendinning E. and Mantell H., (1983), "Write Ideas", Longman Group Limited

5. Shreve N.R., Brink J. A. Jr. (1977),"Chemical Process Industries, Mc Graw-Hill, London

6. Shreve N.R., Brink J.A.Jr. (Çeviri: Çataltaş A.İ.), 1985 Kimyasal Proses Endüstrileri I, İnkilap Kitabevi, İstanbul

7. McCabe W.L., Smith J.C. and Harriott P., 1985, Unit Operations of Chemical Engineering, Mc.GrawHill Book Company, NewYork.

8. Kimya Mühendisliği Ünit Operasyonları, 1981, McCabe-Smith'den Çeviren: Prof. Dr. Emir Gülbaran, İ.T.Ü.Mühendislik Mimarlık Fakültesi Yayınları,sayı 137, Matbaa Tek. Koll. ŞTİ, İstanbul

Results and Discussion

Complete the sentences with the words in the list. Use each word only once.

typical | convert | immediately | all calculations | units

«First, be sure to perform **all calculations** in SI **units**. Much of your raw data will be taken in English units, as is still **typical** in industry. However, you should **immediately** convert your raw data directly to SI units in order to perform your calculations. Do not simply **convert** your final answer to SI. »[20]

Include | individual | assumptions | follow | provide | assist | intelligible

«Present the results of your calculations in an **intelligible** form. Do not simply put tables of data and graphs and expect your reader to know what you did. **Include** a discussion of your results in which you tell the reader what was done and **provide** an outline of all calculations that you make. Intermediate algebraic steps may be excluded (these should be presented in the Appendix instead), but it is important to list any **assumptions** that you make in the calculations or to **assist** the reader with any complex mathematical manipulations. This does not have to be lengthy, but it should be sufficient so that the reader can **follow** what was done. The body of the text can then refer to **individual** tables or graphs. ...»[20]

Results and Discussion

Complete the sentences with the words in the list. Use each word only once.

explain too trends confusing overlooked draw labelled unrelated relationships

«Be sure that your tables are well **labelled**. Do not use symbols without using words to **explain** the symbols.
Do not make your graphs or tables **too** large. It might be easier for the reader if several smaller graphs were on the same page so that **relationships** between the data can be examined.
Decide how much information should be on one graph. For example, do not make three separate graphs when you can **draw** three lines on one graph. This would allow **trends** to be noticed which would otherwise be **overlooked**. Conversely, do not put too much, or **unrelated**, data on a single graph. This can make the graph **confusing**.»[20]

[20](1998, Chem. Eng. Dep't, University of Illinois at Chicago, All Rights Reserved) Last update: 8/31/98

Check these points in your write-up: [20]

Complete the sentences with the words in the list. Use each word only once.

supposed | must | enough | describes | unspecified | explaining | Condenser

summarizing | descriptive | spend | information | create | assume | mean

«Make sure there are **enough** words in the Results sections. You should not simply **create** tables and graphs without **explaining** them to your reader in words. A busy supervisor does not want to **spend** time figuring out what your headings **mean**, or that a table is **summarizing** the energy balance around an **unspecified** control volume.»[20]

«Each table and figure **must** be numbered, and given a short descriptive title (Ex: Table 1: Energy balance for **Condenser**).»[20]

«Each table and figure must have one paragraph which **describes** the content of the table or figure in a few **descriptive** sentences. What **information** is the reader **supposed** to get out of the table? Remember to **assume** that your supervisor is reading this report. What information do they need?»[20]

Check these points in your write-up:[20]

Complete the sentences with the words in the list. Use each word only once.

logical organizing start easier narrative examine

combine means creating before linked

«These tables, figures, and paragraphs should form a consistent **narrative** called the "Results". This **means** that the paragraphs should be put in a **logical** order so that one is **linked** to the other. Perhaps you would **start** with the material balances, and then the energy balances, etc.» [20]

«This sounds like a lot of work when **creating** a table or figure, and it is. However, you should spend time **organizing** your information **before** creating tables and figures in order to **combine** related information on one table or graph. Then, you will have less items to write about, and it will be **easier** for your reader to **examine** the relationships between your data.» [20]

Rewrite the sentences below with the correct word order to make the phrases.

'Citations' within the

to the original source

of information, and are

Explanation of Results

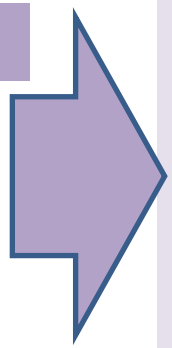
sections.

in the Background

Information and

text of the report point

most commonly used



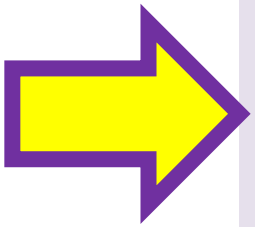
«'Citations' within the text of the report point to the original source of information, and are most commonly used in the Background Information and Explanation of Results sections.

subscripts are not

scientific writing.

used to cite sources in

Footnotes or



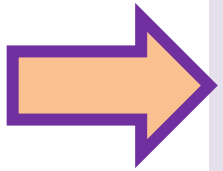
Footnotes or subscripts are not used to cite sources in scientific writing.

varies among

Although the format

used for citations

disciplines

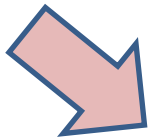


Although the format used for citations varies among disciplines»[18]

[18]http://marietta.edu/~biol/introlab/labreprt

TRANSLATIONS

«KINETICS
The speed of a chemical reaction is sometimes too slow to be economical, and a study of catalysis becomes necessary. It was not until Haber and Bosch showed that the rate of the hydrogenation of nitrogen to furnish ammonia could be greatly increased by contact with a catalyst of iron, promoted by small percentages of K_2O and Al_2O_3, that the chemical reaction for the synthesis of ammonia became commercially economical.»[6]



«Kinetik
Bir kimyasal reaksiyonun hızı bazen, ekonomik olmayacak kadar yavaştır ve bu durumda bir katalizör araştırılması gerekir. Haber ve Bosch, amonyak üretimi , için azotun hidrojenasyonunda reaksiyon debisinin, çok az miktarlardaki K_2O ve Al_2O_3 ile kuvvetlendirilmiş, demir katalizör yardımıyla arttığını göstermişler ve bundan sonra, amonyak sentezi için bu reaksiyon, ticari yönden ekonomik olmuştur.»[5]

[5]Shreve N.R., Brink J. A. Jr. (Çeviri : Çataltaş A. İ.), 1985 Kimyasal Proses Endüstrileri I, İnkilap Kitabevi, İstanbul
[6] Shreve N.R., Brink J. A. Jr., 1977, Chemical Process Industries , Mc Graw-Hill, London

TRANSLATIONS

«MATERIAL BALANCES, ENERGY CHANGES, AND ENERGY BALANCES must be in the forethought of any chemical engineer planning to commercialize a reaction. Thermodynamic principles also provide physical and chemical data on reactant and products. Furthermore, thermodynamics concerned with free energy gives the condition under which a reaction is possible. Throughout this book many of the reactions given are followed by the heat of reaction ΔH. This is expressed as $-\Delta H$ when the system loses or evolves heat.»[6]

«Kütle Dengeleri, Enerji Değişimleri ve Enerji Dengeleri. Kimyasal reaksiyonun, endüstriyel uygulamaya dönüştürülmesi için bütün bu konular, kimya mühendisince evvelden düşünülmelidir. Termodinamik prensipler, reaksiyona giren ve reaksiyonda meydana gelen maddeler ilgili, fiziksel ve kimyasal veriler sağlar. Ayrıca serbest enerji ile ilgili termodinamik veriler, hangi şartlar altında reaksiyonun mümkün olabileceğini bildirir. Kitabımızın bütününde, reaksiyon denklemleri ile birlikte, reaksiyon ısıları da ΔH verilmektedir. Sistem ısı kaybeder veya ısı salıverirse bu $-\Delta H$ şeklinde gösterilir.»[5]

[5]Shreve N.R., Brink J. A. Jr. (Çeviri : Çataltaş A. İ.), 1985 Kimyasal Proses Endüstrileri I, İnkilap Kitabevi, İstanbul
[6] Shreve N.R., Brink J. A. Jr., 1977, Chemical Process Industries , Mc Graw-Hill, London