

Chem 360 lecture 5A

Writing the Methods Section II
Tables and figures (chapt 16)

Admin matters

- Please provide the abstracts for the top 5 journals in your data base search. (from now on all homework is to be typed – double space). Also, indicate your topic title.
- Please note your group number when you sign the attendance sheet.
- Please turn in your homework: Exercise 16-3.

Admin matters

- Regarding the Database Search homework:
Please resubmit with following guidelines:
- a) Identify topic and the top 5 references in ACS style - all typewritten.
 - b) Submit corresponding abstracts for these five.

If you already used the above format for your homework, no need to resubmit.

Last time: Methods Section is directed at Expert audience

The level is set at the expert level as reflected in:

- a) **Conciseness** (by: fewer details, nominalizations, parentheses)
- b) **Level of detail** (only: vendors, parameters, final conc, not explaining known techniques)
- c) **Word choice** (by: use of scientific terms without explanation.)
- d) **Level of formality** (by: complete sentences. No contractions.)

Move 2: Procedures & Instrumentation

Many details can be learned from excerpts.

Examples: units - Wrong: You mix 5 mLs of 1 % glucose (Glc) with 24 mgs of adenosine triphosphate (Ad Tp) and incubate at 39°C.

Correct: Five milliliters of 1% glucose was mixed with 24 mg ATP and incubated at 39° C.

Lessons to be learned: past tense, passive voice, abbrev only after numeral, no numeral at start of sentence, after a unit of measure – singular verb, ACS abbrev'n,

Use numbers ... :

- a) with units of time or measure:
three seconds 3 sec , eleven kilograms 11 kg
but 3 samples three samples,
- b) if > 9: ten samples 10 samples
- c) In a series or range containing # > 9:
three, five and 11 times 3, 5 and 11 times
- d) Not at start of sentence:
5 L were used... Five liters were used...
But: Two-bromopropane was used...
2-bromopropane was used...

Move 2: Procedures & Instrumentation

- Wrong: One percent glucose solution was freshly prepared. Then 5 mL of it was mixed with 24 mg ATP. Then the solution mixture was incubated at 39°C for 1 hr. After the solution mixture was reacted with 1 μ g of enzyme.

Correct: Five milliliters of freshly prepared 1% glucose was mixed with 24 mg ATP, incubated at 39° C for 1 h and reacted with 1 μ g of enzyme.

Lesson: use of commas instead of "then".

Abbreviation of units and use of numbers:

Not unless after a numeral:
~~One mL~~ 1 milliliter 1 mL

Leave a space between numeral and unit:
~~1mL~~ 1 mL but 1-% 1%

Do not add "s" to make abbreviated unit plural:
~~24 mgs~~ 24 mg

Add a leading zero to decimal numbers:
~~.5~~ 0.5

Do not abbreviate day, week, month or year

Submove :Describing the equipment

Don't include ordinary equipment

Include novel instrumentation or modern instrumentation.

Include operational parameters.

Use accepted abbreviations.

Know the full term so you use the abbrev properly, e.g. FTIR

Move 3: numerical methods

- Required if numerical analysis was used
- Use of abbreviations = expert audience.
- ab initio = first principles, not empirical.

Group exercises: Do Exercises 3.21, 3.24 and 3.26

1 Arsenis, Tiffanie Elizabeth	5 Nunez, Daniel	9 Dai, Jeff
1 Huynh, Sang Nhu	5 Wang, David T.	9 Low, Peter Adrian Meng Kuan
1 Pan, Peng	6 Augustus, Angela Kathleen	9 Rios, Alejandra
2 Huang, Xinzhe	6 Ayala Jr, Moises	10 Madany, Abdullah Muhammad
2 Ortiz, Miguel A	6 Gonzalez, Angie Vanessa	10 Marin-Morales, Milwar
2 Pulcher, Sherry T.	7 Husain, Syed Zahid	10 Salgado, Marisol
3 Rojas, Claudia Erika	7 Landazuri, Hiroshi	11 Galdamez, Ricardo Giovanni
3 Ustarez, Andrea T	7 Leija-Mejia, Manuel	11 Melendez Cetino, Jhanisus L
3 Vallente, Debbie Elizabeth	7 Warner, Wayne	11 Mendoza, Michael David
3 Vu, Duy T	8 Tang, Ming Lam	11 Xiong, Wendy Bao
4 Delgado, Ricky Joe	8 Wu, Aaron Ching	12 Ramos, Angela Maria
4 Lee, Manny Paul	8 Yeo, Edmund Teng-Ke	12 Rose, Desiree Anne
4 Mayorga, Victor Hugo		12 Todd, Phillise Tiffeny

Group Behavior

1. *Respect* each group members answers and contributions even if you disagree.
2. *Encourage* every one to contribute by verbalizing new concepts and new terms.
3. *Attend* all meetings of the learning team and be *on time*.
4. Be patient and open minded.
5. Be *prepared* for the work to be done at a group meeting.
6. Divide work into sections (share work).
7. Take time to teach each other.
8. Don't let one member do all the work.
9. Respect cultural differences.
10. Understand different learning styles.