

FINAL PROJECT

PARAGRAPH AND

REFERENCES

Due: October 31, 2012, Midnight

Paragraph

You should prepare one paragraph that will be used in either the Introduction or Methods section of your paper as a writing sample. This paragraph must be at least four sentences and include at least three citations from the literature. It is a good idea to outline your Introduction and Methods sections before choosing a paragraph to write. Review the Final Project Instructions handout for further advice on how to organize these two sections.

References in the text should be cited directly or in parentheses. The difference between direct and parenthetical citations are that, for direct citations, the author's name(s) are cited outside the parentheses and no comma is used between the name and the publication year. For parenthetical citations, the entire citation occurs between the parentheses. Most of your citations should be parenthetical. For single author works, the author's last name should be given followed by a comma and the publication year. If a reference has two authors, the authors' last names are given separated by the word "and" followed by a comma and the publication year. For works with more than two authors, the first author's last name is given followed by "et al.," and the publication year. When citing multiple works in a single statement, order the citations alphabetically, then by publication year, and separate with semicolons. Multiple references that contain the same author(s) during the same year or that result in equivalent author abbreviations in the text during the same year must be differentiated by the letters, 'a', 'b', 'c', etc., placed after the year of publication both in the textual citation and in the references section.

Examples Single author: (Smith, 1989)
 Two authors: (Smith and Jackson, 1993)
 More than two authors: (Smith et al., 1991)
 Multiple citations in a single statement: (Smith and Jackson, 1993; Smith et al., 1991)
 Multiple citations with equivalent author abbreviations during the same year: (Smith et al., 1991a; Smith et al., 1991b)
 Direct; more than two authors: Smith et al. (1991)

References

For this exercise, you will need to provide references for the citations in the paragraph. These references should be provided strictly following the Geoderma format with the exception that you have the option of writing out the full journal title in the reference. If journal title abbreviations are used, they should follow conventional abbreviation names (e.g., CAS: <http://www.cas.org/sent.html>):

Examples Reference to a journal publication:
 Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2010. The art of writing a scientific article. *Journal of Science Communication* 163, 51–59.

Reference to a book:

Strunk Jr., W., White, E.B., 2000. *The Elements of Style*, fourth ed. Longman, New York.

Reference to a chapter in an edited book:

Mettam, G.R., Adams, L.B., 2009. How to prepare an electronic version of your article, in: Jones, B.S., Smith, R.Z. (Eds.), *Introduction to the Electronic Age*. E-Publishing Inc., New York, pp. 281–304.

Your final project will contain at least ten references. Most of these references should be peer-reviewed journal articles. Web-based, non-peer reviewed articles are not allowed for this project. Also, note that personal communications are only cited in the text (i.e., not in the references list). Personal communications should only rarely be used.

Format

Paragraphs in the text must be typed (double-spaced with 1 in. margins using a 12-point font). References should be double spaced with a hanging indent of 0.5 in and listed in alphabetical order by author last name. The title should be listed in all caps, centered at the top of the page. Your name should be listed directly under the title with your first and middle names initialed, also centered between the margins. Your name should be followed by the section title in all caps, left justified and immediately followed by the paragraph with the first line indented. The references section should follow your paragraph and its title should be formatted as a section title. An example of the format for this exercise is given to you on page 3.

Resources

Scientific Writing for Graduate Students (1968), Edited by F. Peter Woodford.

Guide for Authors, *Geoderma* (2010), Published by Elsevier. (http://www.elsevier.com/wps/find/journaldescription.cws_home/503332/authorinstructions)

DETERMINATION OF CALCITE AND DOLOMITE CONTENT IN SOILS AND PALEOSOLS BY CONTINUOUS COULOMETRIC TITRATION

D.R. Hirmas

INTRODUCTION

Methods for quantitatively determining calcite and dolomite in a soil sample can be distinguished on the basis of the principles they employ (Loeppert and Suarez, 1996). There are four basic categories of methods: differential kinetic, selective dissolution, X-ray diffraction (XRD), and differential thermal analysis (DTA). Unlike selective dissolution, XRD, or DTA methods, differential kinetic methods monitor the CO₂ gas liberated from carbonate minerals when reacted with a strong acid using manometric or volumetric techniques (Skinner and Halstead, 1958; Skinner et al., 1959; Dreimanis, 1962; Evangelou et al., 1984). Many laboratories can readily adapt standard manometric procedures to quantify calcite and dolomite fractions in a sample using the principle employed in differential kinetic methods because such procedures are often used to determine total carbonate in a sample. As a result, these methods tend to be commonly used over methods that require more expensive instrumentation and time-consuming procedures (e.g., XRD or DTA).

REFERENCES

- Dreimanis, A., 1962. Quantitative gasometric determination of calcite and dolomite by using Chittick apparatus. *Journal of Sedimentary Petrology* 32, 520-529.
- Evangelou, V.P., Whittig, L.D., Tanji, K.K., 1984. An automated manometric method for quantitative-determination of calcite and dolomite. *Soil Science Society of America Journal* 48, 1236-1239.

- Loeppert, R.H., Suarez, D.L., 1996. Carbonate and gypsum, in: D. L. Sparks (Ed.) Methods of soil analysis, Part 3: Chemical methods. SSSA and ASA, Madison, WI, pp. 437-474.
- Skinner, S.I.M., Halstead, R.L., 1958. Note on rapid method for determination of carbonates in soils. Canadian Journal of Soil Science 38, 187-188.
- Skinner, S.I.M., Halstead, R.L., Brown, J.E., 1959. Quantitative manometric determination of calcite and dolomite in soils and limestones. Canadian Journal of Soil Science 39, 197-204.