

Going Indie



One man's journey into writing and publishing his own textbook

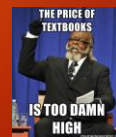
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Why I did it...

Circa 2009

Online Courses

Removing the Sage
from the Stage



How long did it take...

Spring/Summer 2010
1st Draft (Web Lectures)

Summer 2011
2nd Draft
Rewrite & Reorganize

Spring 2012
3rd Draft
Figures & Problems

Fall 2012
Final Draft, "Closed Beta"
Traditional book: primary text
My book: supplement (opt.)

Fall 2013
Final Draft, "Open Beta"
My book: primary text
Trad. book: supplement (opt.)

Fall 2014
My book: only required text

How I wrote it...



"Narrative approach"

No textbook tropes
(figure captions, etc)

Trade paperback (6 x 9) format

Learning Beyond section at end
of chapters for "Side-box" material



How I published it...



Provides ISBN
Distribution via Amazon
Allows revisions after publication
Preset or custom cover options

The end result...

Two Volumes:

General I (482 pages), \$24.99

Chapter 1 Matter and Measurements
Chapter 2 Atoms & Elements
Chapter 3 Molecules & Compounds
Chapter 4 The Mole & Chemical Equations
Chapter 5 Aqueous Chemistry
Chapter 6 Properties of Gases
Chapter 7 Thermochemistry (Part I)
Chapter 8 Electron Arrangement (Part I)
Chapter 9 Electron Arrangement (Part II)
Chapter 10 Chemical Structures (Part I)
Chapter 11 Chemical Structures (Part II)
Chapter 12 Chemical Bonding

General II (362 pages), \$19.99

Chapter 13 Liquids & Solids
Chapter 14 Solutions
Chapter 15 Chemical Kinetics
Chapter 16 Chemical Equilibrium
Chapter 17 Acids & Bases (Part I)
Chapter 18 Acids & Bases (Part II)
Chapter 19 Thermochemistry (Part II)
Chapter 20 Electrochemistry
Chapter 21 Nuclear Chemistry

Thanks...

- Durham Tech CC Science Department
- My General Chemistry Students
- Lulu, Inc.
- ...and you

www.rmarkmatthews.com

How I dealt with practice problems...

100

It is a very common mistake to include phases in every equation. The reaction has been written in the previous chapter, but the student assumes that it will keep the reader from a better understanding of the reaction being presented.

Try It Yourself

11. Write equations, with phase, showing the dissociation of each of the following acids in water: (a) H_2S , (b) HNO_3 , (c) H_2SO_4 , (d) H_2CO_3 , (e) H_3PO_4 , (f) H_2SiO_4 , (g) H_2SiO_3 , (h) H_2SiO_2 , (i) H_2SiO .

12. Which of the following compounds are predicted to be soluble in water? (a) NaCl , (b) KNO_3 , (c) AgCl , (d) CaSO_4 , (e) BaSO_4 , (f) PbSO_4 , (g) PbCl_2 , (h) PbBr_2 , (i) PbI_2 .

"End of part" problems (Try It Yourself)
Very similar to in-text examples

End of chapter problems (Test Your Skills)
20-35 problems (some multi-part)
Three-tiered difficulty levels
Scoring system ("XP") for each level

100

11. Suppose you have a set of substances, each with one of the following values of ΔH°_f :

(a) -110.3 kJ/mol , (b) -110.3 kJ/mol , (c) -110.3 kJ/mol , (d) -110.3 kJ/mol , (e) -110.3 kJ/mol , (f) -110.3 kJ/mol , (g) -110.3 kJ/mol , (h) -110.3 kJ/mol , (i) -110.3 kJ/mol , (j) -110.3 kJ/mol , (k) -110.3 kJ/mol , (l) -110.3 kJ/mol , (m) -110.3 kJ/mol , (n) -110.3 kJ/mol , (o) -110.3 kJ/mol , (p) -110.3 kJ/mol , (q) -110.3 kJ/mol , (r) -110.3 kJ/mol , (s) -110.3 kJ/mol , (t) -110.3 kJ/mol , (u) -110.3 kJ/mol , (v) -110.3 kJ/mol , (w) -110.3 kJ/mol , (x) -110.3 kJ/mol , (y) -110.3 kJ/mol , (z) -110.3 kJ/mol .

12. The following is a set of substances, each with one of the following values of ΔH°_f :

(a) -110.3 kJ/mol , (b) -110.3 kJ/mol , (c) -110.3 kJ/mol , (d) -110.3 kJ/mol , (e) -110.3 kJ/mol , (f) -110.3 kJ/mol , (g) -110.3 kJ/mol , (h) -110.3 kJ/mol , (i) -110.3 kJ/mol , (j) -110.3 kJ/mol , (k) -110.3 kJ/mol , (l) -110.3 kJ/mol , (m) -110.3 kJ/mol , (n) -110.3 kJ/mol , (o) -110.3 kJ/mol , (p) -110.3 kJ/mol , (q) -110.3 kJ/mol , (r) -110.3 kJ/mol , (s) -110.3 kJ/mol , (t) -110.3 kJ/mol , (u) -110.3 kJ/mol , (v) -110.3 kJ/mol , (w) -110.3 kJ/mol , (x) -110.3 kJ/mol , (y) -110.3 kJ/mol , (z) -110.3 kJ/mol .

How I illustrated it...

Microsoft Word (mostly)

Windows Snipping Tool

A LOT of patience

Four from Wikimedia Commons (public domain)

