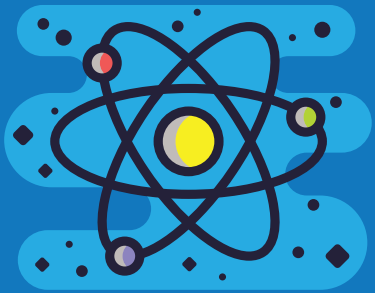
TOP HAT

General Chemistry:
A Top Hat Interactive Text



General Chemistry:
A Top Hat Interactive Text

Contents

GENERAL CHEMISTRY

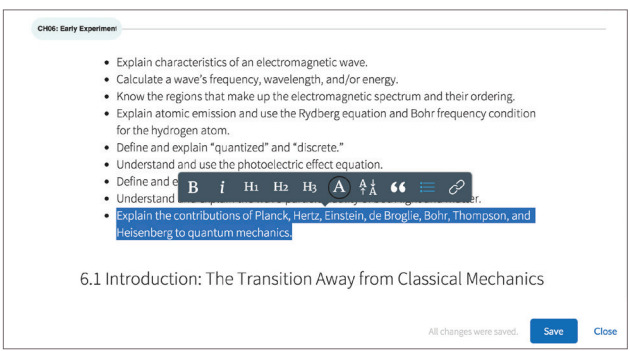
1 The Basics of Chemistry
2 Matter at the Atomic Level
3 Molecules, Compounds, and Their Composition
4 Chemical Reactions and Stoichiometry
5 Thermochemistry
6 Early Quantum Theory: The Nature of Light and Matter
7 Quantum Theory, Atomic Structure, and Periodicity
8 Representing Valence Electrons: Lewis Structures of Atoms, Ions, and Molecules
9 Theories of Chemical Structure and Bonding
10 Gases
11 Liquids, Solids and Intermolecular Forces
12 Solutions
13 Chemical Kinetics
14 Chemical Equilibrium
15 Acids and Bases
16 Aqueous Equilibria
17 Spontaneity and Free Energy
18 Oxidation-Reduction Reactions and Electrochemistry
19 Nuclear Chemistry
20 The Main Group Elements
21 Coordination Chemistry

Customizability

Top Hat Interactive Texts give professors full control over the content of their course material.

Learning objectives, chapters, instructional videos or questions can be added, modified or deleted, to suit your particular course and teaching style.

Unlike the fixed layouts of printed textbooks, Top Hat Interactive Texts won't become outdated and require new editions to be purchased every few years. Instead, professors can customize and curate their student's curriculum at any time.

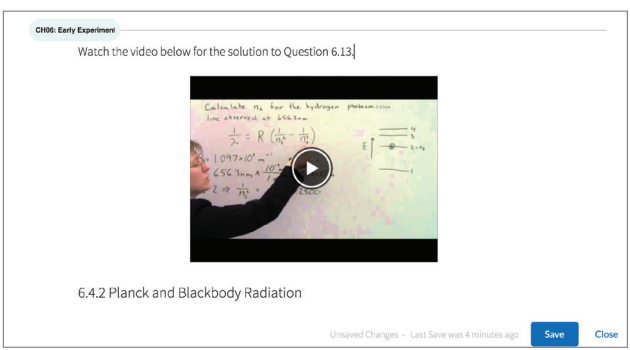


Embedded Video

Sometimes complex ideas or procedures are better conveyed through video. Top Hat Interactive Texts give you the power to embed Vimeo or Youtube videos in course material where students can view and review as many times as they need.

General Chemistry: A Top Hat Interactive Text also comes prepared with over 30 original instructional videos that walk students through select problems from each chapter. Embedding additional videos is easy and integrates seamlessly with the rest of your course material.

Using videos to demonstrate key course concepts is useful for students who are visual learners. Make your teaching more fun and engaging with embedded videos in General Chemistry: A Top Hat Interactive Text.

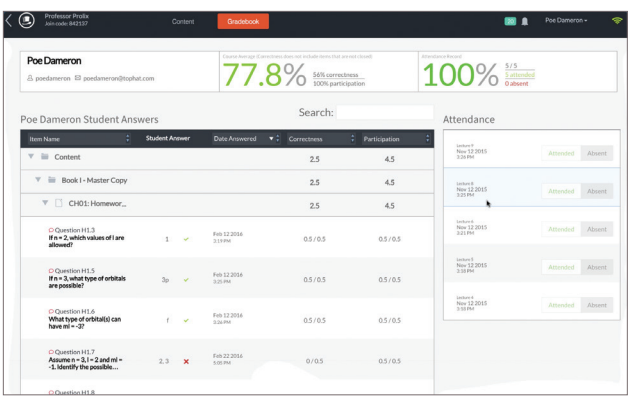


Student Benefits

Top Hat Interactive Texts make ordinary learning experiences extraordinary. Interactive questions and exercises give students instant guidance and recognition as they work to master difficult course material.

General Chemistry: A Top Hat Interactive Text also comes with a complete solution key for each problem in the text, not just answers, but step-by-step walkthroughs of how to arrive at each answer.

Top Hat texts are digital, so there's no heavy, expensive paper block to haul around–or to forget at home. With Top Hat interactive texts, students can now study, practice and review their personal participation and performance stats all in one place, and save money.



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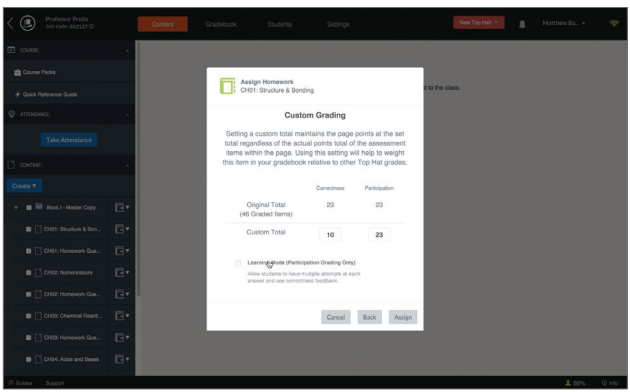
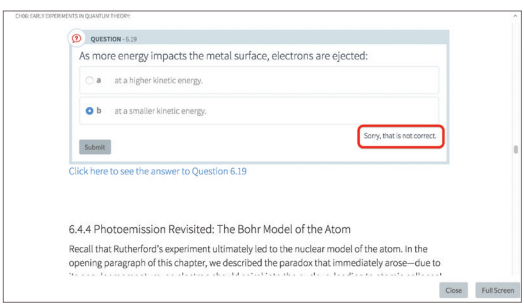


Live Feedback

Top Hat Interactive Texts empower students to take responsibility for their learning. Make your course material magnetic by giving students in-line questions that provide real-time learning feedback.

Interactive multiple choice, word answer and numeric questions make difficult or daunting course material approachable and resonant. Live feedback also makes chapter reviews engaging and individual practice encouraging as students are notified instantly if they have answered a question correctly or not.

This real time feedback enables students to hone in and focus on confusing concepts sooner, and be rewarded for their efforts as they progress through the course. You can even track your classes participation in a glance, in the Gradebook. Stimulate active learning in your classroom–and in your text–with General Chemistry: A Top Hat Interactive Text.



Authors & Contributors

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Franklin Ow received his Ph.D from the University of California, Los Angeles. His doctoral work focused on gas-phase photochemistry of organometallic compounds in Jeffrey Zink's group. Franklin is currently an Associate Professor at East Los Angeles College, teaching introductory, general, and organic chemistry. He also lectures periodically at UCLA and Occidental College, teaching general, organic, and inorganic chemistry.

GREG DOMSKI – ASSISTANT EDITOR & AUTHOR

Greg Domski earned his Ph.D. at Cornell University where he developed organometallic catalysts for living, stereoselective olefin polymerization. Dr. Domski is currently an associate professor of chemistry at Augustana College (Illinois) where he teaches general, organic, and inorganic chemistry.

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Pricing

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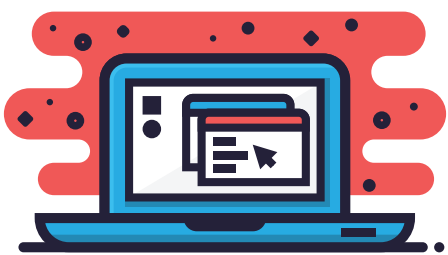
SEE HOW TOP HAT'S INNOVATIVE GENERAL CHEMISTRY INTERACTIVE TEXT CAN TRANSFORM YOUR CLASS IN 3 EASY STEPS:

STEP 1:
Open up your web browser and navigate to get.tophat.com/generalchemistry.

STEP 2:
Chat with one of our account directors for more details.

STEP 3:
Share your course's learning objectives with our General Chemistry Instructional Designed and receive your fully customized Interactive Text ready for next term.



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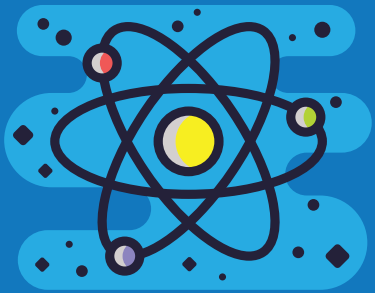
TOP HAT

Organic Chemistry I & II:
A Top Hat Interactive Text



Organic Chemistry I & II:
A Top Hat Interactive Text

Contents

ORGANIC CHEMISTRY I

1 Structure and Bonding
2 Nomenclature
3 Chemical Reactivity and Mechanisms
4 Acids and Bases
5 Conformations of Acyclic Alkanes and Cyclohexanes
6 Stereochemistry
7 S_N2 Reactions
8 S_N1 Reactions and Distinguishing Between S_N1 and S_N2 Reactions
9 E1 Reactions to Form Alkenes
10 E2 Reactions to Form Alkenes
11 Substitution–Elimination: Discerning the Differences
12 Alkenes
13 Alkynes
14 Alcohols and Oxiranes
15 Ethers
16 IR Spectroscopy and Mass Spectrometry
17 NMR
18 Radicals

ORGANIC CHEMISTRY II

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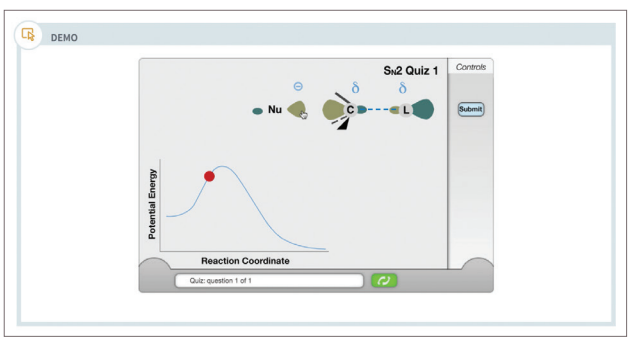
21 Reactions of Aromatic Compounds
22 Aldehydes, Ketones, and their Anomeric Derivatives
23 Amines
24 Carboxylic Acids
25 Carboxylic Acid Derivatives
26 Condensations and Alpha Substitutions of Carbonyl Compounds
27 Synthetic Polymers

Interactive Exercises

Organic Chemistry I & II: A Top Hat Interactive Text comes with pre-made interactive exercises and chemical reaction demonstrations to help students navigate the sometimes intimidating sub-molecular word.

These instructive demonstrations take students through the process of complicated organic chemistry reactions, step-by-step and state-by-state. Interactive exercises work by grounding difficult to conceive, abstract concepts in a visual, hands-on learning experience.

Students can then navigate through related interactive exercises and work through complex course material, memorizing as they progress through each chapter.



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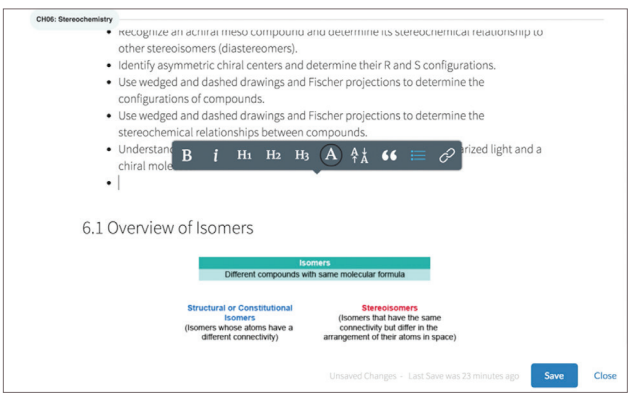

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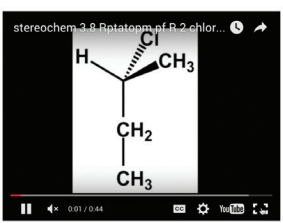
Step 4: Trace a path from the highest to the lowest priority.



To stress this point, 12 different drawings of (*S*)-2-butanol are presented below. No matter which way your draw (*S*)-2-butanol, it will always be (*S*)-2-butanol. For each drawing, rotate the lowest priority hydrogen to the back and you will see that they all have an *S* configuration.

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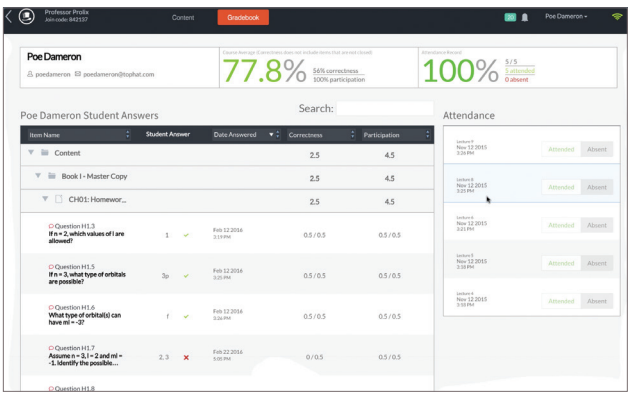

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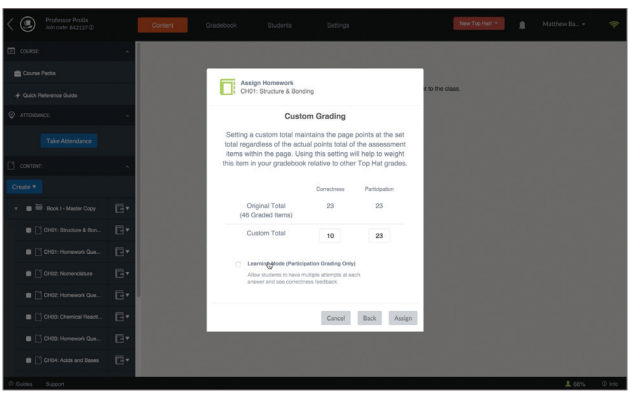

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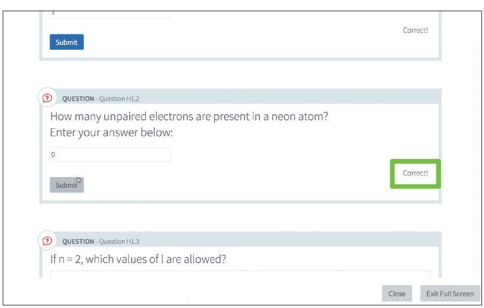

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STEVEN FORSEY – EDITOR & PRINCIPAL AUTHOR

Steven Forsey started his career as an educator at the University of Waterloo in 1985 as a chemistry laboratory instructor. After finishing his Ph.D. in 2004 Dr. Forsey started lecturing and has since received the Excellence of Science Teaching Award for his efforts. Dr. Forsey has long been an early adopter of technology and integrates technology in his classroom to enhance his pedagogy, and the learning experience of his students.

FELIX NGASSA – ASSISTANT EDITOR & AUTHOR

Felix Ngassa holds a Ph.D. in organic chemistry from the University of North Dakota and an MBA from the Seidman College of Business. He is currently an Associate Professor of chemistry at Grand Valley State University. Dr. Ngassa has lectured in organic chemistry for many years and has been recognized with many teaching and research awards including GVSU CSCE Outstanding Undergraduate Mentoring Award.

NEIL GARG – FEATURED AUTHOR

Neil Garg joined the faculty at UCLA in 2007. His undergraduate organic chemistry course (Chem 14D) is one of the most popular classes at UCLA. Neil has received several teaching accolades and has been named the State of California's 2015 Professor of the Year. Dr. Garg contributes the 'Keeping it Real' sections to the text which highlight applications of organic chemistry in medicine, everyday life, and pop culture.

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Pricing

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What people are saying...

"This interactive Organic Chemistry text provides students with an active learning experience that has positively impacted their course performance. Students scores in quizzes and preliminary examinations clearly increased after implementation. Students were also better prepared to engage in lecture discussion."
– Professor José Boquin

"The Top Hat Interactive Organic Chemistry Text is very helpful. I like the embedded questions because I get instant feedback and understand why I am wrong, or if I did did (or did not) understand a topic."
– Anonymous student

"The embedded questions were the most helpful, in that I could use them as quick reviews of other material or as a review after a quiz if it didn't go well, to try and better understand the material."
– Anonymous student

"With Top Hat being so straight-forward and easy-to-use, there were only a few times when I resorted to supplementary print textbooks in place of Top Hat's Interactive Text."
– Anonymous student

Student Experience

60% of 142

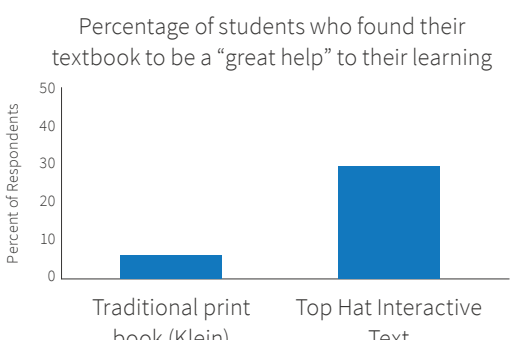
surveyed students[1] said that "the interactive components of the Top Hat Organic Chemistry text increased the time they spent with the course material."

In a year-end class survey[2]:

92% of students who used the Top Hat interactive text said it helped their learning

VS.

65% of students who used a traditional print textbook (Klein)



[1] Top Hat survey of students at 4 institutions
[2] Data courtesy of Augustana College

AVERAGE SCORE ON STANDARDIZED FINAL EXAM[2]

(combined data from 2 classes)

	2014-15 (Traditional Print Textbook)	2015-16 (Top Hat Interactive Text)	Improvement in average exam score
CHEM311	73.1%	78.8%	+5.7%
CHEM312	72.4%	76.5%	+4.1%

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$99

[2] Data courtesy of Augustana College

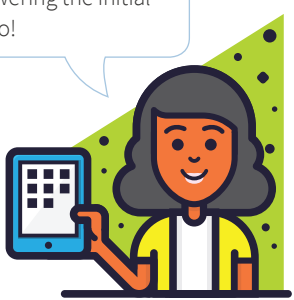
SEE HOW TOP HAT'S INTERACTIVE ORGANIC CHEMISTRY TEXT CAN TRANSFORM YOUR CLASS IN 3 EASY STEPS:

STEP 1:
Insert enclosed USB key into any internet connected computer then double-click the file StartHere.html or visit get.tophat.com/organicchemistry

STEP 2:
Chat with one of our account directors for more details.

STEP 3:
Share your course's learning objectives with our Organic Chemistry Instructional Designer and receive your fully customized Interactive Text.

When making the switch, our Organic Chemistry Instructional Designer will customize your Top Hat Interactive Text to align with your existing course notes and materials–lowering the initial activation energy to zero!



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