

QUANTUM THEORY AND THE ATOM

WORKSHEET ANSWERS

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What is the lowest allowable energy state of an atom called? The lowest allowable energy state of an atom is called its ground state.

What model treats electrons as waves? Erwin Schrödinger proposed the quantum mechanical model of the atom, which treats electrons as matter waves.

What according to Bohr's model of a hydrogen atom the smaller the electrons? Originally applied to the hydrogen atom, it led to the quantum mechanical model of the atom 3. According to Bohr's atomic model, the smaller an electron's orbit, the lower the atom's energy level. 4. According to Bohr's atomic model, the larger an electron's orbit, the higher the atom's energy level.

Which would have the larger wavelength, a slow moving proton or a fast moving golf ball? Final answer: Using de Broglie's equation, a slow-moving proton would have a larger wavelength compared to a fast-moving golf ball. This is because wavelength is inversely proportional to momentum, hence a slower movement indicates higher wavelength.

What is the highest energy level of an atom? Valence electrons have the highest energy. The valence electrons are the ones that are furthest out from the nucleus. These are also the electrons that can be excited by photons.

What is the lowest possible energy of an atom? DEFINITION VALID FOR SINGLE ELECTRON SYSTEM: Ground state: Lowest energy state of any atom or ion is called ground state of the atom. It is $n=1$. Excited energy (IE): Minimum energy required to move an electron from ground state to $n=?$ is called ionisation energy of

the atom or ion.

What do you call a negatively subatomic particle? There are three subatomic particles: protons, neutrons and electrons. Two of the subatomic particles have electrical charges: protons have a positive charge while electrons have a negative charge.

What is the latest atomic model? The current model of the atom is known as the “quantum mechanical model” or the “electron cloud model.” It describes the atom as a small, dense nucleus containing protons and neutrons, surrounded by a cloud of electrons that occupy energy levels or “shells.”

What is Schrödinger's model? The Schrödinger model assumes that the electron is a wave and tries to describe the regions in space, or orbitals, where electrons are most likely to be found.

How is Schrödinger's model different from Bohr's? In the Schrödinger model, the electrons behave as standing waves that have greater probability of being in some regions of space (orbitals) than in others. In the Bohr model, the electrons are waves of no amplitude that occupy only certain orbits of fixed energy around the nucleus.

What is the planetary model of the atom? According to the Bohr model, often referred to as a planetary model, the electrons encircle the nucleus of the atom in specific allowable paths called orbits.

What is n in Bohr's equation? n initial is the original energy level, which is the fourth energy level. And final is where the electron is going to. That is the second energy level. So all we need to do is plug those numbers into the equation, and we can find out how much energy is released from an electron within a hydrogen atom.

What is a massless particle that carries a quantum of energy? A photon (from Ancient Greek φῶς, φῶτος (phôs, ph?tós) 'light') is an elementary particle that is a quantum of the electromagnetic field, including electromagnetic radiation such as light and radio waves, and the force carrier for the electromagnetic force.

What is the modern model of the atom that treats electrons as waves? The quantum mechanical model treats electrons as waves and does not describe the electrons' path around the nucleus. The Bohr model treats electrons as particles

traveling in specific circular orbits.

Which one has largest wavelength when all are moving with same speed?

Electron has the least mass, so its wavelength is maximum. Was this answer helpful?

What is the 2 8 8 18 rule in chemistry? Electron shell (energy level) The maximum number of electrons per shell, in order of increasing shell number (from 1 to 4) was said to be respectively 2, 8, 8, and 18. An atom will be made of the same number of electron shells as the number of period where it is found in the Periodic Table.

Why is the 3rd shell 8 or 18? Each shell can contain only a fixed number of electrons: the first shell can hold up to two electrons, the second shell can hold up to eight ($2 + 6$) electrons, the third shell can hold up to 18 ($2 + 6 + 10$) and so on. The general formula is that the n th shell can in principle hold up to $2(n^2)$ electrons.

What is released when an electron loses energy? Electromagnetic radiation in the form of light is released when an electron loses energy. When an electron absorbs energy, it gets excited and moves up an energy level. It's now in what is called its excited state. The electron then falls back down to its ground state and emits energy in the form of light.

What is it called when electrons jump to a higher energy level? In atomic physics and chemistry, an atomic electron transition (also called an atomic transition, quantum jump, or quantum leap) is an electron changing from one energy level to another within an atom or artificial atom.

What are photons made up of? A photon is a tiny particle made up of electromagnetic waves. They have no mass and no charge. You can think of them as a tiny packet of light energy. A photon is an example of a quantum, a discrete packet of energy or matter.

Which orbital looks like a dumbbell? P-Orbital Shape The p orbital is a dumbbell shape because the electron is pushed out twice during the rotation to the 3p subshell when an opposite-spin proton aligns gluons with two same-spin protons.

What is the state of lowest energy for an atom? If an atom, ion, or molecule is at the lowest possible energy level, it and its electrons are said to be in the ground

state.

What is the lowest state of energy called? The lowest energy level of a system is called its ground state; higher energy levels are called excited states.

What is always the lowest energy level for an atom? The lowest energy sublevel is always the 1s sublevel, which consists of one orbital. The single electron of the hydrogen atom will occupy the 1s orbital when the atom is in its ground state. As we proceed to atoms with multiple electrons, those electrons are added to the next lowest sublevel: 2s, 2p, 3s, and so on.

What is the lowest energy bound state? Only the lowest-energy bound state, the ground state, is stable. Other excited states are unstable and will decay into stable (but not other unstable) bound states with less energy by emitting a photon.

The Miracle Morning for Network Marketers: Unlock Your Success in 90 Days

Question 1: What is The Miracle Morning for Network Marketers 90 Day Action Planner?

Answer: This 90-day guide is a comprehensive roadmap designed specifically for network marketers to unlock their full potential. It combines the transformative principles of "The Miracle Morning" with actionable strategies tailored to the unique challenges and opportunities of network marketing.

Question 2: What benefits can I expect from using this planner?

Answer: The Miracle Morning for Network Marketers 90 Day Action Planner provides a structured framework to:

- Enhance your productivity, motivation, and focus
- Build a strong foundation for success in your business
- Develop a consistent morning routine that empowers you to achieve your goals

Question 3: How does this planner differ from other resources for network marketers?

Answer: This planner goes beyond mere inspiration by offering a step-by-step approach. It includes daily exercises, reflection prompts, and a dedicated space for tracking your progress. This practical guidance ensures that you stay accountable and motivated throughout the 90-day journey.

Question 4: What is Volume 2 of The Miracle Morning for Network Marketing?

Answer: Volume 2 is a continuation of the 90 Day Action Planner, providing additional strategies, insights, and inspiration for network marketers who have completed the initial phase. It delves deeper into advanced concepts and helps you accelerate your business growth.

Question 5: How can I get started with The Miracle Morning for Network Marketers?

Answer: You can purchase The Miracle Morning for Network Marketers 90 Day Action Planner and Volume 2 through the official website or select retailers. Begin your transformational journey today and unlock the full potential of your network marketing business.

Translation and Relevance Cognition and Context: 2nd Edition

What is the central tenet of Relevance Cognition and Context theory in translation?

Relevance Cognition and Context (RCC) theory emphasizes that translation is a cognitive process that is heavily influenced by the context and the intended audience. Translators must understand the communicative intent of the original text and consider the target audience's knowledge, expectations, and cultural background to produce a relevant and effective translation.

How does RCC theory guide translation decisions?

RCC theory provides a framework for translators to make informed choices about the language, style, and tone they use. By considering the context and relevance to the target audience, translators can adapt the translation to the specific communicative situation and ensure that the message is conveyed effectively.

What are the key elements of relevance in translation according to RCC theory?

RCC theory identifies three key elements of relevance:

1. **Structural relevance:** The translation should retain the logical structure and organization of the original text.
2. **Lexical relevance:** The translation should use appropriate vocabulary and expressions that convey the meaning of the original.
3. **Pragmatic relevance:** The translation should consider the social and cultural context of the original and adapt the language to meet the expectations of the target audience.

How does RCC theory differ from traditional translation approaches?

Unlike traditional translation approaches that focus on literal accuracy, RCC theory emphasizes the importance of adaptation and relevance. It allows translators to interpret the original text creatively and make necessary changes to ensure that the translation remains faithful to the communicative intent while also being appropriate for the target audience.

What are the implications of RCC theory for translation practice?

RCC theory has significant implications for translation practice. It encourages translators to:

- Develop a deep understanding of the context and target audience
- Use creative and adaptive strategies to convey the message effectively
- Prioritize relevance over literal accuracy
- Engage in reflective practice to improve their decision-making process

Text Appeal: The Ultimate Texting Guide

Question 1: What is the optimal length for a text message?

Answer: Keep texts concise and to the point, ideally between 50-160 characters. Longer messages can be overwhelming and make it difficult to engage the recipient.

Question 2: How should I use emojis and abbreviations?

Answer: Use emojis sparingly to convey emotions or clarify meaning. Avoid excessive use of abbreviations, as they can be confusing and unprofessional. Stick to commonly understood abbreviations, such as "BRB" (be right back).

Question 3: What is the best time to send a text message?

Answer: Consider the recipient's time zone and availability. Weekdays between 9 am and 5 pm are generally appropriate, while weekends and late evenings may be less appropriate unless it's an emergency.

Question 4: How should I handle sensitive topics via text?

Answer: Avoid discussing highly sensitive or controversial topics over text. Instead, suggest a phone call or in-person meeting to ensure clarity and minimize misunderstandings.

Question 5: What is the etiquette for group text messages?

Answer: When sending group texts, keep the topic focused and avoid sending excessive messages. Respect the privacy of individuals who may not want to participate in the conversation. Use a polite tone and avoid spamming or sending unsolicited messages.

[the miracle morning for network marketers 90 day action planner the miracle morning for network marketing volume 2, translation and relevance cognition and context 2nd edition, textappeal the ultimate texting guide](#)

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