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Atomic structure notes class 8

Mass number of sodium is 23 means the number of protons + number of neutrons is 23. So two electrons are present in the outermost shell which are called valence electrons.Question 4cThe subatomic particle with positive charge isprotonneutronelectronnucleonAnswerprotonReason — A proton is a positively charged particle present in the nucleus of an atom.Question 4dIf the atomic number of an atom is 17 and mass number is 35, then number of neutrons will beAnswer18Reason — Number of neutrons = Mass number - Atomic number = 35-17 = 18.So, number of neutrons = 18.Question 4eThe number of electrons in an atom is equal to the number ofprotons in a neutral atomneutrons in a neutral atomnucleons in a neutral atomnone of the aboveAnswerprotons in a neutral atomReason — An electrically neutral atom has an equal number of electrons and protons.Question 4fThe sum of number of protons and number of neutrons present in the nucleus of an atom is called itsmass.numeratonic numbernumber of electronshell of the aboveAnswermass numberReason — The sum of number of protons and number of neutrons present in the nucleus of an atom is called the mass number of that element.Question 5Name three fundamental particles of an atom. Download ICSE Class 8 Chemistry Selina Solutions PDF for Chapter 4 - Atomic Structure Question 1. Atoms of same element with same atomic number but a different mass number. ""^12m 6C, ""^16m 8O, ""^19m 9F, ""^20m 10Ne, "" 13^Al""^27, "" 17^Cl""^35" Also, draw atomic diagrams for them.What is variable valency? It is important for students to practise more questions related to Atomic Structure as it helps them to learn different approaches to solve questions. of electrons = 2 x 12 = 2L shell, n=2, no. Revise the Answers: After solving the questions of Atomic Structure, students are advised to revise the answers and solutions so they don't miss out any of the steps. Later, try answering the questions given in the Selina textbook. The entire mass of the atom is concentrated in it. So number of neutrons present is 12.Question 13Draw the diagrams representing the atomic structures of the following:(a) Nitrogen(b) NeonAnswer(a) Atomic structure diagram of Nitrogen is given below:(b) Atomic structure diagram of Neon is given below:Explain the rule with example according to which electrons are filled in various energy levels.AnswerNeil Bohr and Charles Bury proposed a scheme for distribution of electrons in different shells of an atom based on the formula 2n², where n denotes the number of shell.The following rules are followed for writing the number of electrons in different energy levels or shells:The maximum number of electrons in each shell or orbit is determined by the formula 2n², where n is the number of shell.K shell, n=1, no. False (b) The maximum number of electrons in the first shell can be 8. Find them here... The sum of the number of protons and neutrons of an atom, neutron 3, particles having mass equal to that of protons.Fill in the blanks. It is denoted by Z. Bring the arrow towards Books & Solutions which can be seen in the navigation bar. 18. 4. (a) What are the two main features of Rutherford's atomic model? So in the process of maintaining the accuracy level of questions related to Atomic Structure, then students can refer to Selina Chemistry Solutions. A new page will appear, select Class 8th from the list of classes. Electrons revolve around the nucleus in circular orbits called shells. The atoms of an element are alike in all respects i.e. size, mass, density, chemical properties but they differ from the atoms of other elements. Shells are filled in step-wise manner.If the atom has only one shell, the outermost shell must have 2 electrons to achieve stable electronic configuration. Solution: Valency (d) Arrangement of electrons in the shells of an atom. To Complete Worksheets: It is obvious that students get worksheet questions related to Class 8 Atomic Structure, so to complete it effectively they can take the help of Selina Class 8 Chemistry Solution. mass number Question 5. Concept Based Questions: The questions of Atomic Structure in the Class 8 Selina Chemistry are conceptual based; through this students can understand the advanced concepts easily. mass number.Answer(a) atom(s) (b) Cation(c) Valence shell(d) nucleus(e) neutral(f) same, same, differentQuestion 2Write True or False for the following statements:(a) An atom on the whole has a positive charge.(b) The maximum number of electrons in the first shell can be 8.(c) The central part of an atom is called nucleus.Answer(a) FalseCorrect statement — An atom on the whole is electrically neutral.(b) FalseCorrect statement — The maximum number of electrons in the first shell can be 2.(c) TrueQuestion 3Give the following a suitable word/phrase.(a) The subatomic particle with negative charge and negligible mass.(b) Protons and neutrons present in the nucleus.(c) The electrons present in the outermost shell.(d) Arrangement of electrons in the shells of an atom.(e) The number of protons present in the nucleus of an atom.(f) The sum of the number of protons and neutrons of an atom.(g) Atoms of same element with same atomic number but a different mass number.(h) The smallest unit of an element which takes part in a chemical reaction.Answer(a) Electron(b) Nucleons(c) Valence electrons(d) Electronic configuration(e) Atomic number(f) Mass number(g) Isotopes(h) AtomQuestion 4aThe outermost shell of an atom is known asValencyValence electronsNucleusValence shellAnswerValence shellReason — The outermost shell of an atom is known as its valence shell or valence orbit.Question 4bThe number of valence electrons present in magnesium isAnswer20Reason — The atomic number of magnesium is 12. two 2. Atoms of one element combine with atoms of another element in a simple number ratio to form molecules of compounds. Give the following a suitable word/phraseThe sub-atomic particle with negative charge and negligible mass.Give the following a suitable word/phrase. 4. 52 Answer: 3. atomic number 3. electron 4. FAQs Need answers? Students can solve their doubts regarding the questions of Atomic Structure with the help of Selina Chemistry Class 8. True, three 3. What information is conveyed by this statement?AnswerAtomic number of sodium is 11 means the number of protons present in the nucleus of sodium atom is 11 and the number of electrons present is 11. What are orbits or shells of an atom?How does the existence of isotopes contradict Dalton's atomic theory?Complete the table below by identifying A, B, C, D, E and F.Download Atomic Structure Class 8 and more Chemistry Study notes in PDF only on Docstity! Get accurate answers of Class 8 Viraf J Dalal Simplified Middle School Chemistry Chapter 4: Atomic Structure. valence electrons (b) The number of valence electrons present in magnesium is 1. Define the following terms: (a) Atomic number (b) Mass number (c) Nucleons (d) Valence shell Solution: (a) Atomic number: The number of protons present in an atom is known as Atomic number. Question 7. Dalton said that _____ could not be divided. neutrons in a neutral atom 3. Improves Confidence: Students need to be confident while preparing for Class 8 Chemistry Atomic Structure, then only they can score well. So third shell will go to fourth shell. Students can use the Selina Chemistry Class 8 Atomic Structure for exams by practising the problems, revising the concepts regularly, focusing on important topics, etc. Write 'true' or 'false' for the following statements: (a) An atom, on the whole, has a positive charge. These notes are comprehensive and detailed yet concise... Review the Particular Concept: After identification of mistakes from Selina Class 8 solutions, students need to review the particular concept of Atomic Structure where they went wrong, accordingly they can understand the concept in a... Structure of Atom Class 8 ICSE Notes: Here, you will get ICSE Class 8 Structure of Atom Notes PDF at Free of Cost. Select Chemistry from the list of subjects. Try Not to Miss Out Any Steps: While attempting questions of Atomic Structure from the Selina Class 8 Chemistry, they are advised not to miss out any steps; accordingly students can minimise the mistakes in the future. So for this purpose Class 8 Chemistry hints and solutions are provided for Atomic Structure so that students can remove all the doubts. An atom is electrically neutral i.e., the number of protons and electrons present in an atom are equal. Multiple Choice Questions (a) The outermost shell of an atom is known as 1. Define the term Mass number.Define the term Valence shell.Mention briefly the salient features of Dalton's atomic theory (five points)What are the two main features of Rutherford's atomic model?State its one drawback of Rutherford's atomic model.What are the observations of the experiment done by Rutherford in order to determine the structure of an atom?State the mass number, the atomic number, number of neutrons and electronic configuration of the following atoms. What information is conveyed by this statement.Draw the diagrams representing the atomic structures of the following: Nitrogen.Draw the diagrams representing the atomic structures of the following: NeonExplain the rule with example according to which electrons are filled in various energy levelsThe atom of an element is made up of 4 protons, 5 neutrons and 4 electrons. Where Can Students Find Selina Chemistry Class 8 Atomic Structure Solutions? Solution: Salient features of Dalton's atomic theory: 1. The chapter also describes, in details, the following concepts: Valence electrons: Valence electrons are the electrons present in the outermost shell of an atom. (c) The outermost shell of an atom is known as..... After practising students can also refer to the solutions of Atomic Structure as the answers are arranged in step wise manner; through this they can understand the explained answers properly. To download the Selina Class 8 Atomic Structure solutions students need to follow some steps which are already explained on this page. To improve confidence, students are advised to start solving easy questions of Atomic Structure from Selina Chemistry solutions; the gradually increase the level. of electrons = 2 x 32 = 18Electrons are not accommodated in a given shell, unless the inner shells are filled. To Prepare for the Test: If students didn't prepare well for Class 8 Atomic Structure test then the only option left to prepare well is to start solving questions from Selina solutions; accordingly they can enhance their score. State the mass number, the atomic number of neutrons and electronic configuration of the following atoms. This is a contradiction to Dalton's atomic theory.Question 18Complete the table below by identifying A, B, C, D, E and F.ElementSymbolNumber of protonsNumber of neutronsNumber of electronsFluorine9F199ABAluminiumCD114I3Potassium19K39EF19AnswerA – 10B – 9C – 13A127D – 13E – 19F – 20Completed table is shown below:ElementSymbolNumber of protonsNumber of neutronsNumber of electronsFluorine9F199109Aluminium13Al271314I3Potassium19K39192019 100%(2)100% found this document useful (2 votes)7K views7 pagesThe document summarizes key concepts in atomic structure: 1) It describes Dalton's atomic theory, Thomson's plum pudding model, and Rutherford's gold foil experiment which established that...Download as pdf or txtSaveSave Grade 8 Atomic Structure - Notes... Mention briefly the salient features of Dalton's atomic theory (five points). Only a few particles bounced back. Atomic Structure is part of Chemistry Class 8 ICSE for Quick Revision. So electronic configuration of potassium is:KLMN2881begin{matrix} \text{K} & \text{L} & \text{M} & \text{N} \\ \hline 2 & 8 & 8 & 1 \end{matrix}K2L8M8N1Question 15The atom of an element is made up of 4 protons, 5 neutrons and 4 No. of neutrons Electronic configuration \begin{matrix} \text{K} \\ \hline 2 & 6 & 6 & 2 \end{matrix} \begin{matrix} \text{L} \\ \hline 3 \\ \hline 16 \end{matrix} \begin{matrix} \text{O} \\ \hline 8 & 16 & 8 & 2,6 \end{matrix} \begin{matrix} \text{F} \\ \hline 9 \\ \hline 19 \end{matrix} \begin{matrix} \text{Ne} \\ \hline 10 & 20 \end{matrix} \begin{matrix} \text{Ne} \\ \hline 10 & 20 \end{matrix} \begin{matrix} \text{Al} \\ \hline 13 & 27 \end{matrix} \begin{matrix} \text{Cl} \\ \hline 17 & 35 \end{matrix} \begin{matrix} \text{Cl} \\ \hline 17 & 35 \end{matrix} \begin{matrix} \text{C} \\ \hline 6 & 12 \end{matrix} \begin{matrix} \text{O} \\ \hline 8 & 16 \end{matrix} \begin{matrix} \text{O} \\ \hline 8 & 16 \end{matrix} \begin{matrix} \text{F} \\ \hline 9 & 19 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