

Answer on the question #64309, Chemistry / General Chemistry

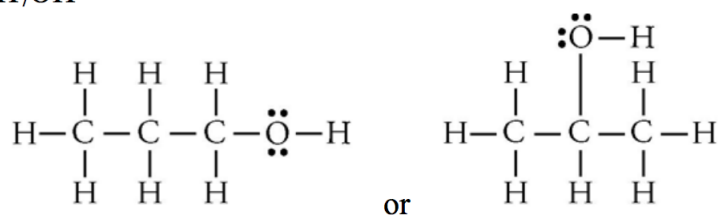
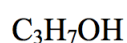
Question:

How many valence electrons must be accounted for in the dot diagram of C₃H₇OH

Answer:

The total number of electrons represented in a Lewis structure is equal to the sum of the numbers of valence electrons on each individual atom.

For C₃H₇OH you can draw several diagrams, depending on the isomer:



Considering each element, first we calculate the number of valence electrons: C – 4 electrons, H – 1 electron, O – 6 electrons. Then, we calculate the total number of the electrons must be accounted for:

$$4 \cdot 3 + 1 \cdot 8 + 6 \cdot 1 = 26$$

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