

28878, Chemistry Inorganic Chemistry

Approximate atomic mass of an element is 26.89 if its equivalent mass is 8.9, the exact atomic mass of the element would be?

Solution:

The equivalent weight of an element is the mass of a given substance which will supply or react with one mole of hydrogen cation H^+ in an acid–base reaction. Thus, if equivalent weight of element is 8.9 and approximate atomic mass of this element is 26.89 the equivalent of element is approaching $26.89/8.9=3.021$. Since, the equivalent of an element is only whole number, by definition, exactly the atomic mass of the element is: $8.9 \cdot 3=26.7$.

Answer:

Exactly the atomic mass of the element is 26.7.