

Answer on Question #71815, Chemistry / General Chemistry

How many moles are contained in 2.29×10^{19} molecules of carbon dioxide? Include the units, but do not write the chemical formula. Round the answer to 3 significant figures.

Solution

1 mole contains 6.022×10^{23} (Avogadro constant) particles.

So find how many moles are contained in 2.29×10^{19} molecules of carbon dioxide.

$$v = \frac{2.29 \times 10^{19}}{6.022 \times 10^{23}} = \mathbf{0,380 \times 10^{-4} \text{ (mole)}}$$

Answer

$\mathbf{0,380 \times 10^{-4} \text{ (mole)}}$ are contained in 2.29×10^{19} molecules of carbon dioxide.

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