

QOD #26

How many moles are equal to 500. grams of aluminum sulfate ( $\text{Al}_2(\text{SO}_4)_3$ )?

- a 1.46 moles                       b  $3.01 \times 10^{26}$  moles  
 c 0.684 moles                       d 2.53 moles

QOD #28

A particle contains 6 protons, 7 neutrons, & 6 electrons. This particle must be a

- A neutral carbon atom     B neutral nitrogen atom  
 C positively-charged carbon ion  
 D positively-charged nitrogen ion

Which of these types of EM radiation has the highest energy?

- A microwaves                       B infrared  
 C visible light                       D x-rays

QOD #32

When electrons in an atom in an excited state fall to lower energy levels, energy is

- A absorbed only  
 B released only  
 C neither absorbed nor released  
 D both absorbed and released

QOD #34

How many electrons can have the quantum #s  $n = 5$  and  $l = 0$ ?

**A** 5

**B** 2

**C** 1

**D** 0

QOD #36

How many valence electrons does an element with the electron configuration  $1s^2 2s^2 2p^3$  have?

**A** 2

**B** 3

**C** 5

**D** 7