

Basic Molar Relationships

Given the information listed, fill in the remainder of each row. Show your work for each calculation, include correct units, and watch significant figures.

Formula	Molar Mass	Mass of Sample	Moles of sample	# of Particles in sample	# of _____	Volume of Gas @ STP
CN			.65 mols		# of C atoms	
MgO				9.63×10^{23} molecules	# of atoms	
He					# of atoms	11.2 L
H ₂ SO ₄		125 g			# of atoms	
NaCl			2.5 mols		# of Cl atoms	
CO				6.02×10^{22} molecules	# of atoms	
CCl ₄			2.7 mols		# of Cl atoms	
NaNO ₃		355 g			# of O atoms	
F ₂			1.83 mols		# of atoms	
C ₂ H ₂				7.92×10^{24} molecules	# of C atoms	
NO ₂				6.02×10^{23} molecules	# of atoms	
BaCO ₃		493.4 g			# of Ba atoms	
Al(NO ₃) ₃		193.8 g			# of O atoms	