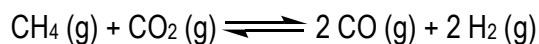


CONCEPT: EQUILIBRIUM CONSTANT CALCULATIONS

- When _____ equilibrium concentrations of a reaction are known, _____ can be calculated.
 - K can also be used to calculate _____ missing equilibrium concentration.

EXAMPLE: What is the value of the equilibrium constant (K_c) for the reaction below if the equilibrium mixture contains 0.255 M of CH_4 , 1.10 M CO_2 , 0.388 M CO and 0.250 M H_2 .



PRACTICE: The reaction: $2 \text{NO} (\text{g}) + \text{Br}_2 (\text{g}) \rightleftharpoons 2 \text{NOBr} (\text{g})$, has a K_p of 2.5×10^2 at 35°C . Calculate the equilibrium concentration of NOBr , if equilibrium concentrations of NO and Br_2 are 0.2 atm and 0.050 atm, respectively.

CONCEPT: EQUILIBRIUM CONSTANT CALCULATIONS

PRACTICE: For the reaction below, $K_c = 1.5$ at a constant temperature. A 3.2 L flask contains an equilibrium mixture of 3 compounds: 3.7 g of NH_4HS , 70. g of NH_3 and unknown amount of H_2S . What is the mass (grams) of H_2S produced at equilibrium?

