Sodium carbonate reacts with HCl acid to liberate CO_2. Find the number of moles of CO_2. Also find the volume obtained at STP when 1 mole of sodium bicarbonate is used.

Answer:
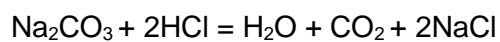
$Na_2CO_3 + 2HCl = H_2O + CO_2 + 2NaCl$
According to the equation, the number of moles of CO_2 formed is 1.
$n(Na_2CO_3)=n(CO_2)=1$ mole
$n(CO_2)=V/22.4$
$V(CO_2)=1 \cdot 22.4=22.4$ l