

	$3 \text{Ni}(\text{CH}_3\text{COO})_2$ 2 (s)	$+ 2 \text{AlBr}_3$ 3 (aq)	$\rightarrow 3 \text{NiBr}_2$ 1 (aq)	$+ 2 \text{Al}(\text{CH}_3\text{COO})_3$ 3 (s)
given quantity	5.00 g	500.0 mL, 0.0245 M	\emptyset	\emptyset
MM (g/mol)	176.78	266.61	218.50	204.13
moles, initial	0.0283	$0.0245 \frac{\text{mol}}{\text{L}} \times 0.500 \text{L}$ $= 0.0122$	\emptyset	\emptyset
change in moles	$-3x$	$-2x$	$+3x$	$+2x$
moles, final	0.0100	\emptyset	0.0183	0.0122
mass, (g), remaining	1.77	\emptyset	4.00	2.49

L.R

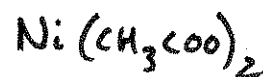
$\frac{0.0283 \text{ mol Ni}(\text{CH}_3\text{COO})_2}{3 \text{ mol}} = 9.43 \times 10^{-3}$

$\frac{0.0122 \text{ mol AlBr}_3}{2 \text{ mol}} = 6.10 \times 10^{-3}$

L.R

$x = 6.10 \times 10^{-3}$

$3x = 0.0183 \text{ mol}$



USED

$0.0283 - 3x = 0.0100$

moles remaining