

WRITING FORMULAS (CRISS-CROSS METHOD)

Name Key

Write the formulas of the compounds produced from the listed ions.

	Cl^-	CO_3^{2-}	OH^-	SO_4^{2-}	PO_4^{3-}	NO_3^-
Na^+	NaCl	Na_2CO_3	NaOH	Na_2SO_4	Na_3PO_4	NaNO_3
NH_4^+	NH_4Cl	$(\text{NH}_4)_2\text{CO}_3$	NH_4OH	$(\text{NH}_4)_2\text{SO}_4$	$(\text{NH}_4)_3\text{PO}_4$	NH_4NO_3
K^+	KCl	K_2CO_3	KOH	K_2SO_4	K_3PO_4	KNO_3
Ca^{+2}	CaCl_2	CaCO_3	Ca(OH)_2	CaSO_4	$\text{Ca}_3(\text{PO}_4)_2$	$\text{Ca(NO}_3)_2$
Mg^{+2}	MgCl_2	MgCO_3	Mg(OH)_2	MgSO_4	$\text{Mg}_3(\text{PO}_4)_2$	$\text{Mg(NO}_3)_2$
Zn^{+2}	ZnCl_2	ZnCO_3	Zn(OH)_2	ZnSO_4	$\text{Zn}_3(\text{PO}_4)_2$	$\text{Zn(NO}_3)_2$
Fe^{+3}	FeCl_3	$\text{Fe}_2(\text{CO}_3)_3$	Fe(OH)_3	$\text{Fe}_2(\text{SO}_4)_3$	FePO_4	$\text{Fe(NO}_3)_3$
Al^{+3}	AlCl_3	$\text{Al}_2(\text{CO}_3)_3$	Al(OH)_3	$\text{Al}_2(\text{SO}_4)_3$	AlPO_4	$\text{Al(NO}_3)_3$
Co^{+3}	CoCl_3	$\text{Co}_2(\text{CO}_3)_3$	Co(OH)_3	$\text{Co}_2(\text{SO}_4)_3$	CoPO_4	$\text{Co(NO}_3)_3$
Fe^{+2}	FeCl_2	FeCO_3	Fe(OH)_2	FeSO_4	$\text{Fe}_3(\text{PO}_4)_2$	$\text{Fe(NO}_3)_2$
H^+	HCl	H_2CO_3	$\text{HOH or H}_2\text{O}$	H_2SO_4	H_3PO_4	HNO_3