

Complete the following reactions:

- $\text{H}_2 + \text{Cl}_2 \longrightarrow$
- $\text{NaCl} + \text{H}_2\text{SO}_4 \longrightarrow$
- $\text{NaCl} + \text{NaHSO}_4 \longrightarrow$
- $\text{CuO} + \text{HCl} \longrightarrow$
- $\text{FeCl}_3 + \text{NH}_4\text{OH} \longrightarrow$
- $\text{Na}_2\text{SO}_3 + \text{HCl} \longrightarrow$
- $\text{AgNO}_3 + \text{HCl} \longrightarrow$
- $\text{AgNO}_3 \text{ (strongly heated)} \longrightarrow$
- $\text{Cu}(\text{NO}_3)_2 + \text{HCl} \longrightarrow$
- $\text{Pb}(\text{NO}_3)_2 + \text{HCl} \longrightarrow$
- $\text{Pb}_3\text{O}_4 + \text{HCl} \longrightarrow$
- $\text{HNO}_3 + 3\text{HCl} + \text{Au} \longrightarrow$
- $\text{NH}_3 + \text{HCl} \longrightarrow$
- $\text{P} + \text{HNO}_3 \longrightarrow$
- $\text{AgCl} + \text{NH}_4\text{OH} \longrightarrow$
- $\text{MnO}_2 + \text{HCl} \longrightarrow$
- $\text{NH}_4\text{Cl} + \text{Ca}(\text{OH})_2 \longrightarrow$
- $\text{NH}_4\text{Cl} + \text{NaOH} \longrightarrow$
- $(\text{NH}_4)_2\text{SO}_4 + \text{Ca}(\text{OH})_2 \longrightarrow$
- $\text{NH}_4\text{NO}_2 \text{ (strongly heated)} \longrightarrow$
- $\text{NH}_3 + \text{H}_2\text{SO}_4 \longrightarrow$
- $\text{NH}_3 + \text{CaCl}_2 \longrightarrow$
- $\text{Mg}_3\text{N}_2 + \text{H}_2\text{O} \longrightarrow$
- $\text{AlN} + \text{H}_2\text{O} \longrightarrow$
- $\text{NH}_3 + \text{O}_2 \longrightarrow$
- $\text{NH}_3 + \text{HNO}_3 \longrightarrow$
- $\text{NH}_3 + \text{H}_2\text{SO}_4 \longrightarrow$
- $\text{Ca}(\text{NO}_3)_2 \text{ (strongly heated)} \longrightarrow$
- $\text{S} + \text{HNO}_3 \longrightarrow$
- $\text{NH}_3 + \text{H}_2\text{O} \longrightarrow$
- $\text{Cu} + \text{HNO}_3 \longrightarrow$
- $\text{Fe}(\text{OH})_3 + \text{HNO}_3 \longrightarrow$
- $\text{NH}_4\text{OH} + \text{HCl} \longrightarrow$
- $\text{NH}_4\text{OH} + \text{HNO}_3 \longrightarrow$
- $\text{KMnO}_4 + \text{HCl} \longrightarrow$
- $\text{NH}_4\text{OH} + \text{H}_2\text{SO}_4 \longrightarrow$
- $\text{Al} + \text{HCl} \longrightarrow$
- $\text{FeSO}_4 + \text{NH}_4\text{OH} \longrightarrow$
- $\text{K}_2\text{Cr}_2\text{O}_7 + \text{HCl} \longrightarrow$
- $\text{Pb}(\text{NO}_3)_2 + \text{NH}_4\text{OH} \longrightarrow$
- $\text{ZnSO}_4 + \text{NH}_4\text{OH} \longrightarrow$
- $\text{Zn}(\text{OH})_2 + (\text{NH}_4)_2\text{SO}_4 + \text{NH}_4\text{OH} \longrightarrow$
- $\text{CuSO}_4 + \text{NH}_4\text{OH} \longrightarrow$
- $\text{Cu}(\text{OH})_2 + (\text{NH}_4)_2\text{SO}_4 + \text{NH}_4\text{OH} \longrightarrow$
- $\text{CuO} + \text{NH}_3 \longrightarrow$
- $\text{PbO}_2 + \text{HCl} \longrightarrow$
- $\text{PbO} + \text{NH}_3 \longrightarrow$
- $8\text{NH}_3 + 3\text{Cl}_2 \longrightarrow$
- $\text{NH}_3 + 3\text{Cl}_2 \longrightarrow$
- $\text{Na}_2\text{CO}_3 + \text{HCl} \longrightarrow$
- $\text{KNO}_3 + \text{H}_2\text{SO}_4 \longrightarrow$
- $\text{FeS} + \text{HCl} \longrightarrow$
- $\text{NaNO}_3 + \text{H}_2\text{SO}_4 \longrightarrow$
- $\text{NaNO}_3 + \text{NaHSO}_4 \longrightarrow$
- $\text{Pb}(\text{NO}_3)_2 \text{ (strongly heated)} \longrightarrow$
- $\text{NH}_3 + \text{O}_2 + \text{Pt (catalyst)} \longrightarrow$
- $\text{NO} + \text{O}_2 \longrightarrow$
- $\text{NO}_2 + \text{O}_2 + \text{H}_2\text{O} \longrightarrow$
- $\text{NaHCO}_3 + \text{HCl} \longrightarrow$
- $\text{PbO} + \text{HNO}_3 \longrightarrow$
- $\text{NH}_3 + \text{P}_4\text{O}_{10} + \text{H}_2\text{O} \longrightarrow$
- $\text{AgNO}_3 + \text{HCl} \longrightarrow$
- $\text{NaOH} + \text{HNO}_3 \longrightarrow$
- $\text{NH}_4\text{OH} + \text{HCl} \longrightarrow$
- $\text{PbCO}_3 + \text{HNO}_3 \longrightarrow$
- $\text{Ca}(\text{HCO}_3)_2 + \text{HNO}_3 \longrightarrow$
- $\text{C} + \text{HNO}_3 \longrightarrow$
- $\text{NH}_4\text{NO}_3 \text{ (strongly heated)} \longrightarrow$
- $\text{Ca}_3\text{N}_2 + \text{H}_2\text{O} \longrightarrow$
- $\text{Cu} + \text{HNO}_3 \text{ (aq)} \longrightarrow$
- $\text{Zn} + \text{HNO}_3 \longrightarrow$
- $\text{Hg}(\text{NO}_3)_2 \text{ (strongly heated)} \longrightarrow$
- $\text{Pb} + \text{HNO}_3 \longrightarrow$

74. $\text{SO}_2 + \text{H}_2\text{O} + \text{HNO}_3 \longrightarrow$
75. $\text{H}_2\text{S} + \text{HNO}_3 \longrightarrow$
76. $\text{FeSO}_4 + \text{NO} \longrightarrow$
77. $\text{SO}_2 + \text{O}_2 \longrightarrow$
78. $\text{K}_2\text{SO}_3 + \text{H}_2\text{SO}_{4(\text{aq})} \longrightarrow$
79. $\text{KHSO}_3 + \text{HCl}_{(\text{aq})} \longrightarrow$
80. $\text{Cu} + \text{H}_2\text{SO}_4 \longrightarrow$
81. $\text{ZnS} + \text{O}_2 \longrightarrow$
82. $\text{FeS} + \text{O}_2 \longrightarrow$
83. $\text{CuFeS}_2 + \text{O}_2 \longrightarrow$
84. $\text{Mg} + \text{SO}_2 \longrightarrow$
85. $\text{H}_2\text{O} + \text{SO}_2 \longrightarrow$
86. $\text{NaOH} + \text{SO}_2 \longrightarrow$
87. $\text{Na}_2\text{SO}_3 + \text{SO}_2 + \text{H}_2\text{O} \longrightarrow$
88. $\text{Ca}(\text{OH})_2 + \text{SO}_2 \longrightarrow$
89. $\text{Na}_2\text{O} + \text{SO}_2 \longrightarrow$
90. $\text{SO}_2 + \text{Cl}_2 \longrightarrow$
91. $\text{S} + \text{H}_2\text{SO}_4 \longrightarrow$
92. $\text{PbO}_2 + \text{SO}_2 \longrightarrow$
93. $\text{Cl}_2 + \text{H}_2\text{O} + \text{SO}_2 \longrightarrow$
94. $\text{FeCl}_3 + \text{SO}_2 + \text{H}_2\text{O} \longrightarrow$
95. $\text{KMnO}_4 + \text{H}_2\text{O} + \text{SO}_2 \longrightarrow$
96. $\text{HNO}_3 + \text{SO}_2 \longrightarrow$
97. $\text{NaCl} + \text{H}_2\text{SO}_4 \longrightarrow$
98. $\text{Cu}(\text{NO}_3)_2$ (strongly heated) \longrightarrow
99. $\text{P}_4 + \text{H}_2\text{SO}_4 \longrightarrow$
100. $\text{H}_2\text{S} + \text{SO}_2 \longrightarrow$
101. $\text{Zn} + \text{H}_2\text{SO}_4 \longrightarrow$
102. $\text{Na}_2\text{SO}_3 + \text{HCl}_{(\text{aq})} \longrightarrow$
103. $\text{HI} + \text{H}_2\text{SO}_4 \longrightarrow$
104. NaNO_3 (strongly heated) \longrightarrow
105. $\text{CaSO}_3 + \text{H}_2\text{O} + \text{SO}_2 \longrightarrow$
106. $\text{C}_6\text{H}_{12}\text{O}_6 + \text{H}_2\text{SO}_4 \longrightarrow$
107. $\text{HCOOH} + \text{H}_2\text{SO}_4 \longrightarrow$
108. $\text{HOOC-COOH} + \text{H}_2\text{SO}_4 \longrightarrow$
109. KNO_3 (strongly heated) \longrightarrow
110. $\text{C}_2\text{H}_2\text{O}_4 + \text{H}_2\text{SO}_4 \longrightarrow$
111. $\text{CuSO}_4 \cdot 5\text{H}_2\text{O} + \text{H}_2\text{SO}_4 \longrightarrow$
112. $\text{FeS} + \text{H}_2\text{SO}_4 \longrightarrow$
113. $\text{FeSO}_4 + \text{H}_2\text{SO}_4 + \text{HNO}_3 \longrightarrow$
114. $\text{H}_2\text{S} + \text{O}_2 \longrightarrow$
115. $\text{H}_2\text{S} + \text{Cl}_2 \longrightarrow$
116. $\text{CaSO}_3 + \text{HCl}_{(\text{aq})} \longrightarrow$
117. $\text{H}_2\text{S} + \text{HNO}_3 \longrightarrow$
118. $\text{Zn}(\text{NO}_3)_2$ (strongly heated) \longrightarrow
119. $\text{H}_2\text{S} + \text{FeCl}_3 \longrightarrow$
120. $\text{H}_2\text{S} + \text{H}_2\text{SO}_4 \longrightarrow$
121. $\text{C} + \text{H}_2\text{SO}_4 \longrightarrow$
122. $\text{NaHSO}_3 + \text{H}_2\text{SO}_{4(\text{aq})} \longrightarrow$
123. $\text{Pb}(\text{CH}_3\text{COO})_2 + \text{H}_2\text{S} \longrightarrow$
124. $\text{CuSO}_4 + \text{H}_2\text{S} \longrightarrow$
125. $\text{Fe}_2(\text{SO}_4)_3 + \text{SO}_2 + \text{H}_2\text{O} \longrightarrow$
126. $\text{NaNO}_3 + \text{H}_2\text{SO}_4 \longrightarrow$
127. $\text{Na}_2\text{CO}_3 + \text{H}_2\text{O} + \text{SO}_2 \longrightarrow$
128. $\text{Cu} + \text{H}_2\text{SO}_4 \longrightarrow$
129. $\text{AgNO}_3 + \text{H}_2\text{S} \longrightarrow$
130. $\text{Mg} + \text{SO}_2 \longrightarrow$
131. $\text{K}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{SO}_4 + \text{SO}_2 \longrightarrow$
132. $\text{Zn}(\text{NO}_3)_2 + \text{H}_2\text{S} \longrightarrow$

** Here consider $\text{HNO}_3_{(\text{aq})}$ means cold, very dilute 1% nitric acid, otherwise consider it as concentrated