

199.

$$12. E = \varphi_+ - \varphi_- = \frac{0.05911}{2} \lg X^2 - \frac{0.05911}{2} \lg (0.1)^2$$

$$\lg X^2 = -1.246$$

$$X =$$

200 17.

$$E \vartheta = \varphi(\text{正极}) - \varphi(\text{负极}) =$$

$$E^\theta = \varphi(MnO_2/Mn^{2+}) - \varphi(Cl^-/Cl_2) = 0.01V - 0.134V$$

反应向逆反应方向进行

通过加大 Cl^- 浓度(采用浓盐酸), 并加热, 制备 Cl_2

$$23. E^\theta(AgBr/Ag) = E^\theta(Ag^+/Ag) + 0.0592V \times \lg K_{sp}^\theta(AgBr)$$

$$\lg K_{sp}^\theta(AgBr) = -12.127$$

$$K_{sp}^\theta(AgBr) =$$