$AgBr + e^- \rightarrow Ag + Br^-$

$E = E^\circ_{AgBr/Ag} - k \log a_{Br^-}$

$= 0,095 - 0,0591597 \log(0,0001)$

$= 0,332\ V$

II Specie

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② $Pt | Ce^{4+}(0,0005\ M), Ce^{3+}(0,001\ M)$ $E^\circ = 1,61\ V$

$Ce^{4+} + e^- \rightarrow Ce^{3+}$

$E = E^\circ_{Ce^{4+}/Ce^{3+}} + k \log \frac{a_{Ce^{4+}}}{a_{Ce^{3+}}}$

$= 1,61 + 0,0591597 \log \frac{0,0001}{0,001}$

$= 1,558\ V$

Redox

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③ $Pt | Fe(CN)_6^{3-}(0,005\ M), Fe(CN)_6^{4-}(0,0005\ M)$ $E^\circ = 0,36\ V$

$Fe(CN)_6^{3+} + e^- \rightarrow Fe(CN)_6^{4-}$

$E = E^\circ_{Fe(CN)_6^{3-}/Fe(CN)_6^{2-}} + k \log \frac{a_{Fe(CN)_6^{3-}}}{a_{Fe(CN)_6^{2-}}}$

$= 0,36 + 0,0591597 \log \frac{0,001}{0,0005}$

$= 0,378\ V$

Redox

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④ $Pt | Cu | CuI | I^-(0,005\ M)$ $E^\circ = -0,185\ V$

$CuI + e^- \rightarrow Cu + I^-$

$E = E^\circ_{CuI/Cu} - k \log a_{I^-}$

$= -0,185 - 0,0591597 \log 0,005$

$= -0,049\ V$

II Specie

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⑤ $Pt | Cl_2(740\ Torr) | Cl^-(0,01\ M)$ $E^\circ = 1,359\ V$

$\frac{1}{2} Cl_2 + e^- \rightarrow Cl^-$

$E = E^\circ_{Cl_2/Cl^-} + \frac{k}{2} \log P_{Cl_2} - k \log a_{Cl^-}$

$= 1,359 + \frac{0,0591597}{2} \log\left(\frac{740}{760}\right) - 0,0591597 \log 0,01$

$= 1,477\ V$

Redox [2 grs]

$E^\circ = 1,33$

$$\frac{1}{2} Cr_2O_7^{=} + 3e^- + 7H^+ \rightarrow Cr^{3+} + \frac{7}{2} H_2O$$

$$E = E^\circ_{Cr_2O_7^{=}/Cr^{3+};H^+} + \frac{k}{3} \log \frac{(a_{Cr_2O_7^{=}})^{1/2} (a_{H^+})^7}{(a_{Cr^{3+}})(a_{H_2O})^{7/2}}$$

qui trascurabile

$$= 1,33 + \frac{0,0591597}{3} \log \frac{(0,01)^{1/2} (10^{-1,5})^7}{(0,001)}$$

$$= 1,162\ V$$

Redox

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(17) $Pt \mid Cu \mid Cu^{2+}\ (0,005\ M)$ $\quad E^\circ = 0,337\ V$

$Cu^{2+} + 2e^- \rightarrow Cu$ $\quad E = E^\circ_{Cu^{2+}/Cu} + \frac{k}{2} \log a_{Cu^{2+}}$

$= 0,337 + \frac{0,0591597}{2} \log 0,005$

$= 0,269\ V$

I specie