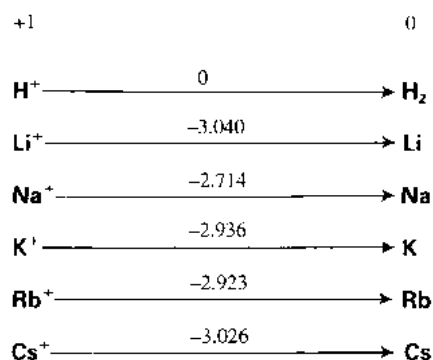


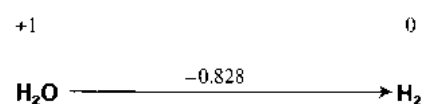
Standard Reduction Potentials for the Elements Presented as Latimer Diagrams*

s Block · Group 1/I

Acidic solution

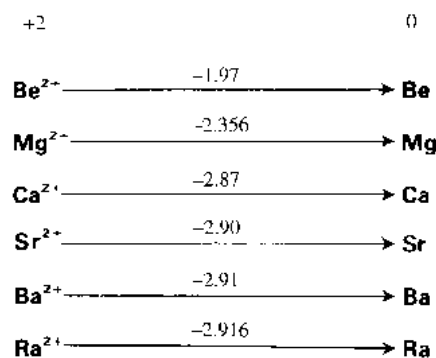


Basic solution

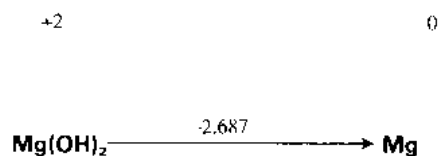


s Block · Group 2/II

Acidic solution

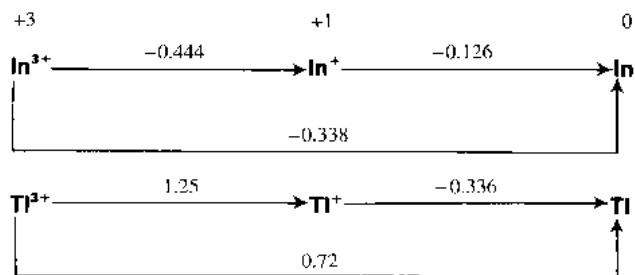
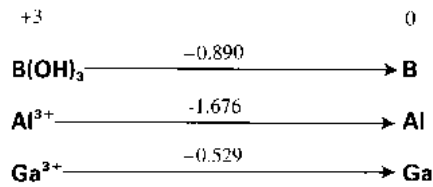


Basic solution

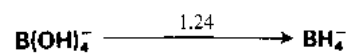
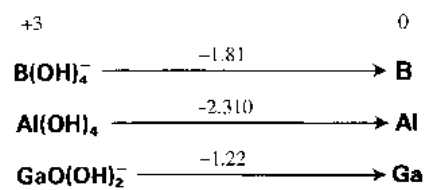


p Block · Group 13/III

Acidic solution

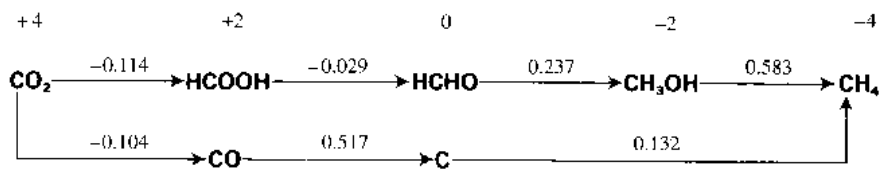


Basic solution

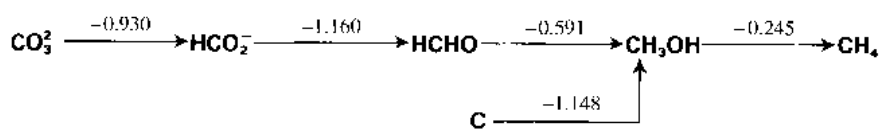


p Block · Group 14/IV

Acidic solution

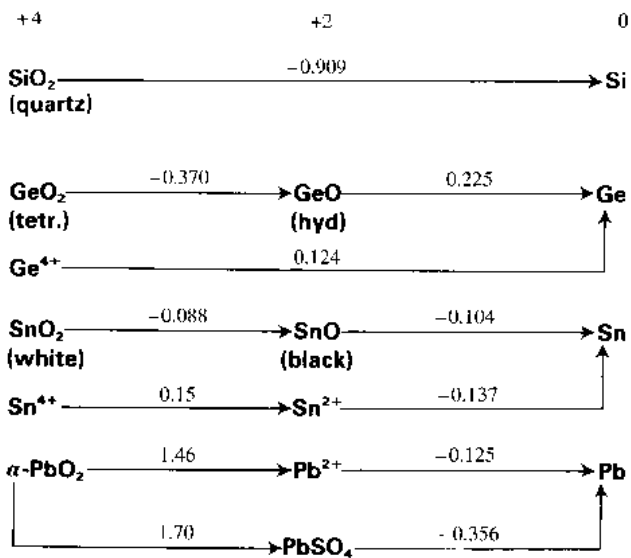


Basic solution

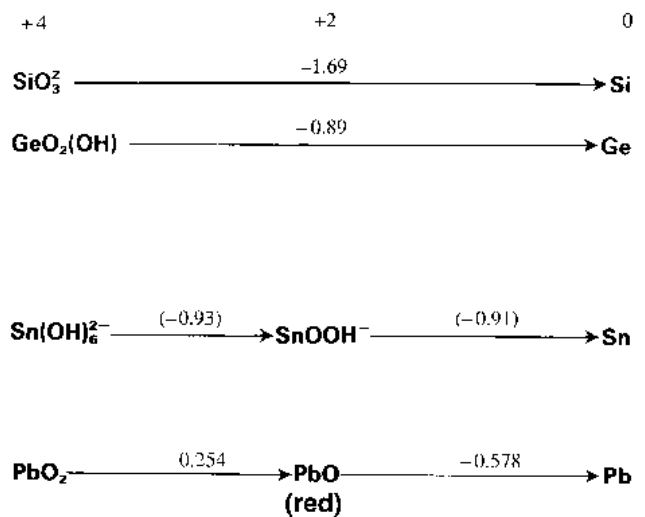


p Block · Group 14/IV (continued)

Acidic solution

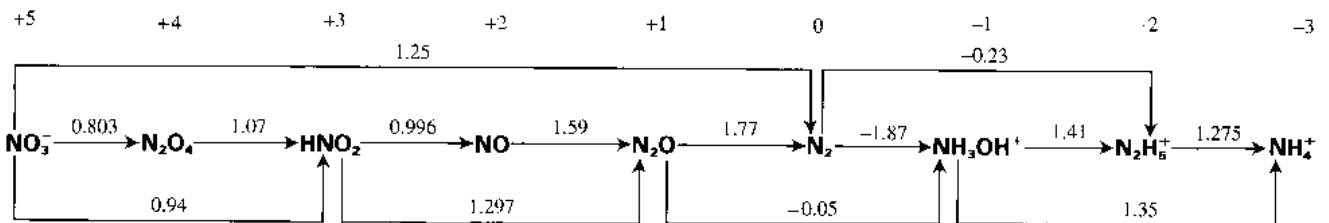


Basic solution

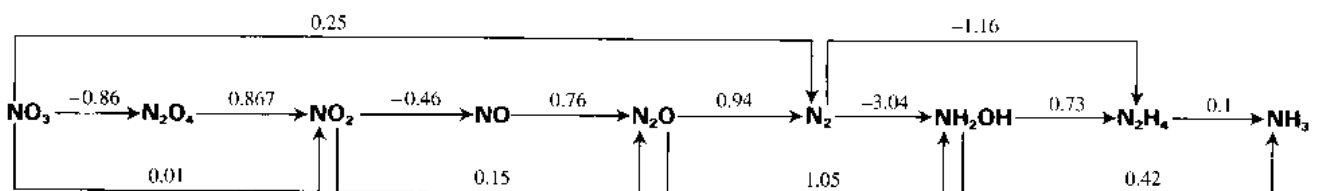


p Block · Group 15/V

Acidic solution

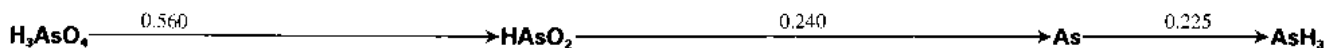
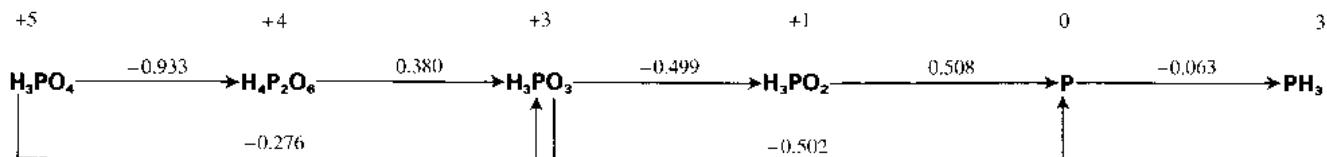


Basic solution

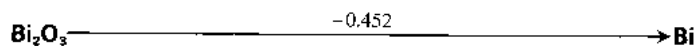
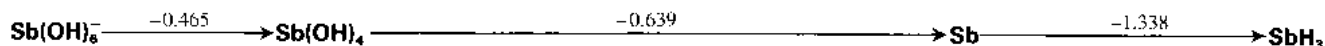
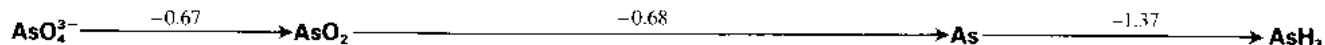
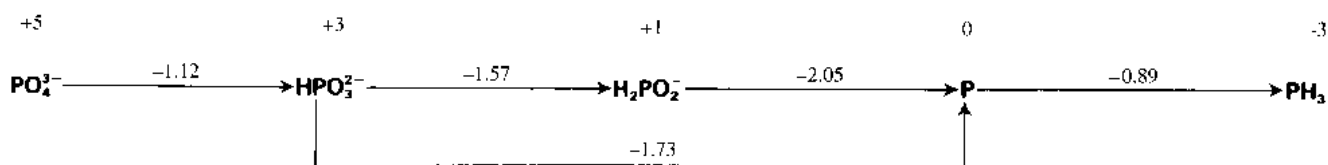


p Block · Group 15/V (continued)

Acidic solution

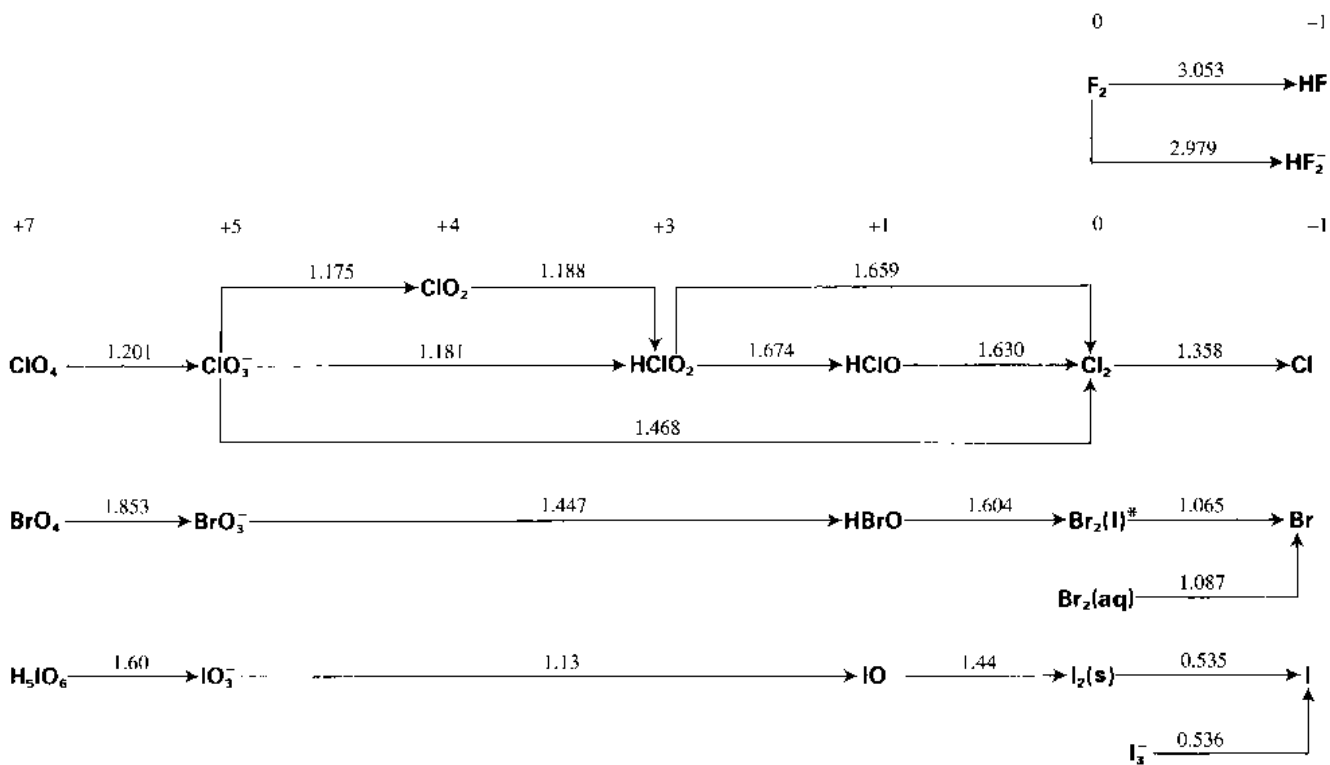


Basic solution



p Block · Group 17/VII

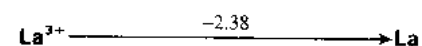
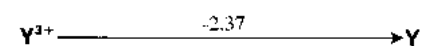
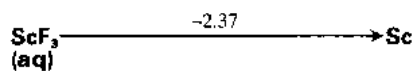
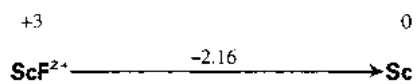
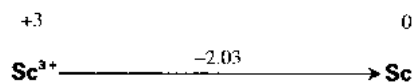
Acidic solution



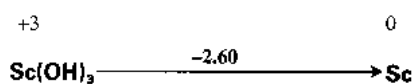
*Bromine is not sufficiently soluble in water at room temperature to achieve unit activity. Therefore the value for a saturated solution in contact with $\text{Br}_2(\text{l})$ should be used in all practical calculations.

d Block · Group 3

Acidic solution

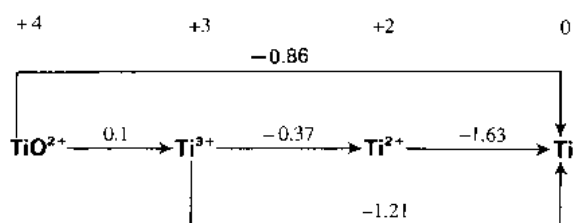


Basic solution



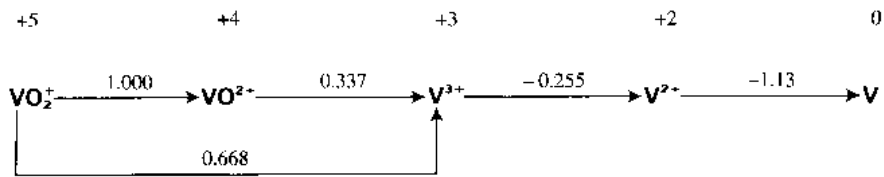
d Block · Group 4

Acidic solution

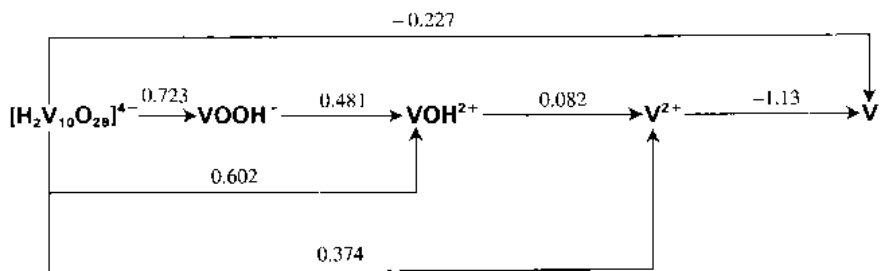


d Block · Group 5

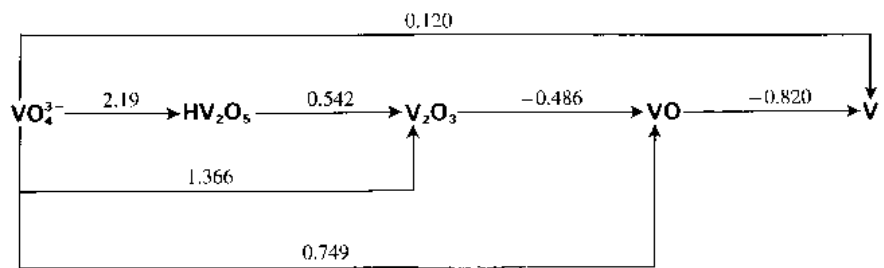
Acidic solution



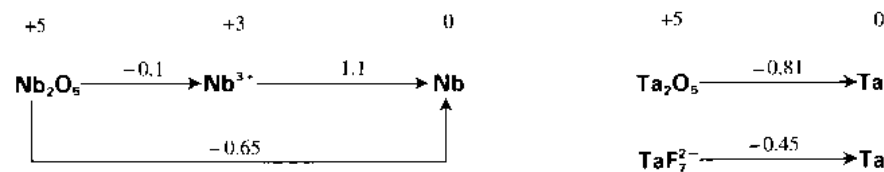
Weakly acidic solution, pH about 3.0–3.5



Basic solution

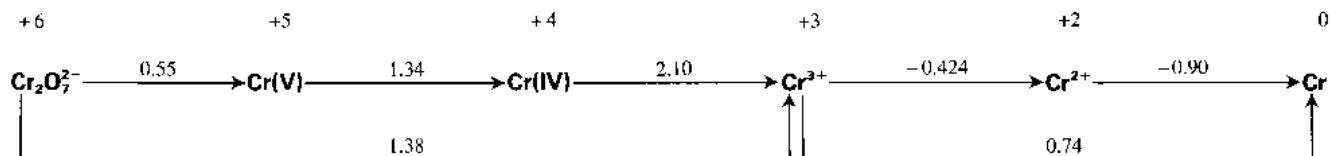


Acidic solution

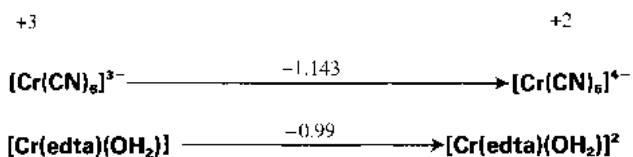


d Block · Group 6

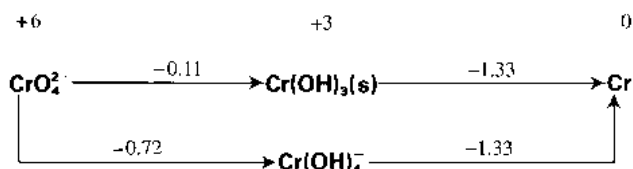
Acidic solution



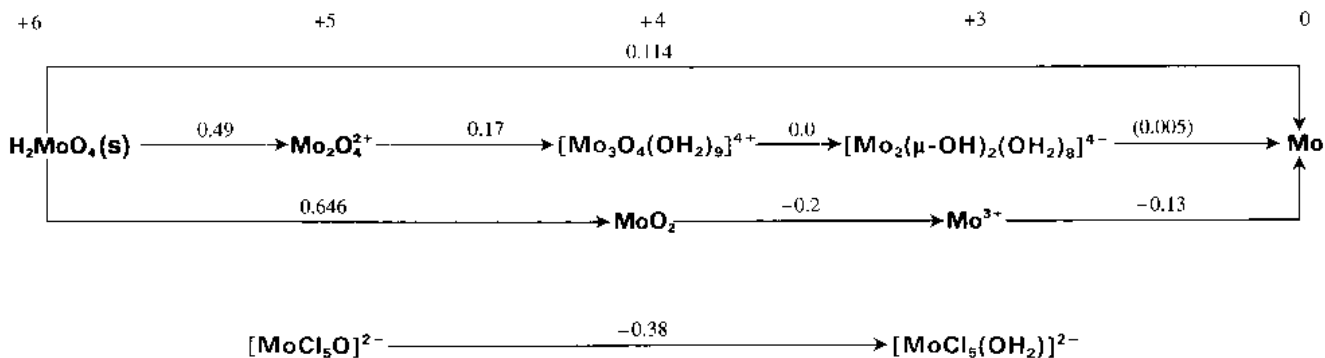
Neutral solution



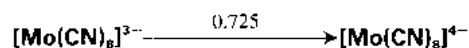
Basic solution



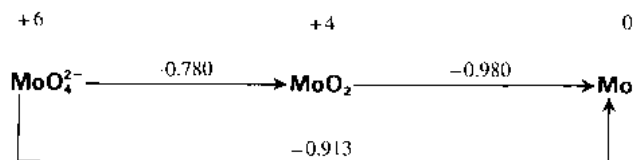
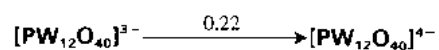
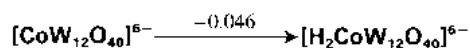
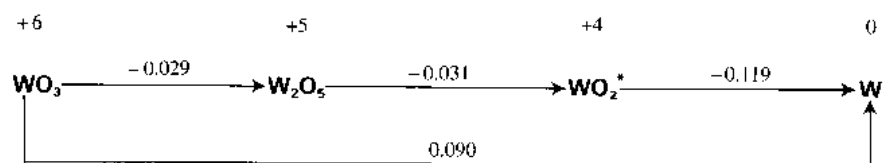
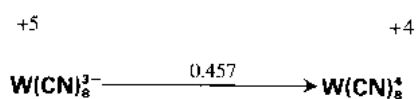
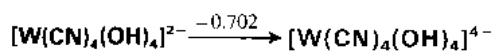
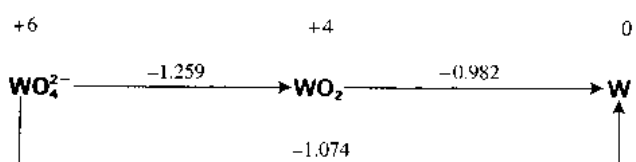
Acidic solution



Neutral solution



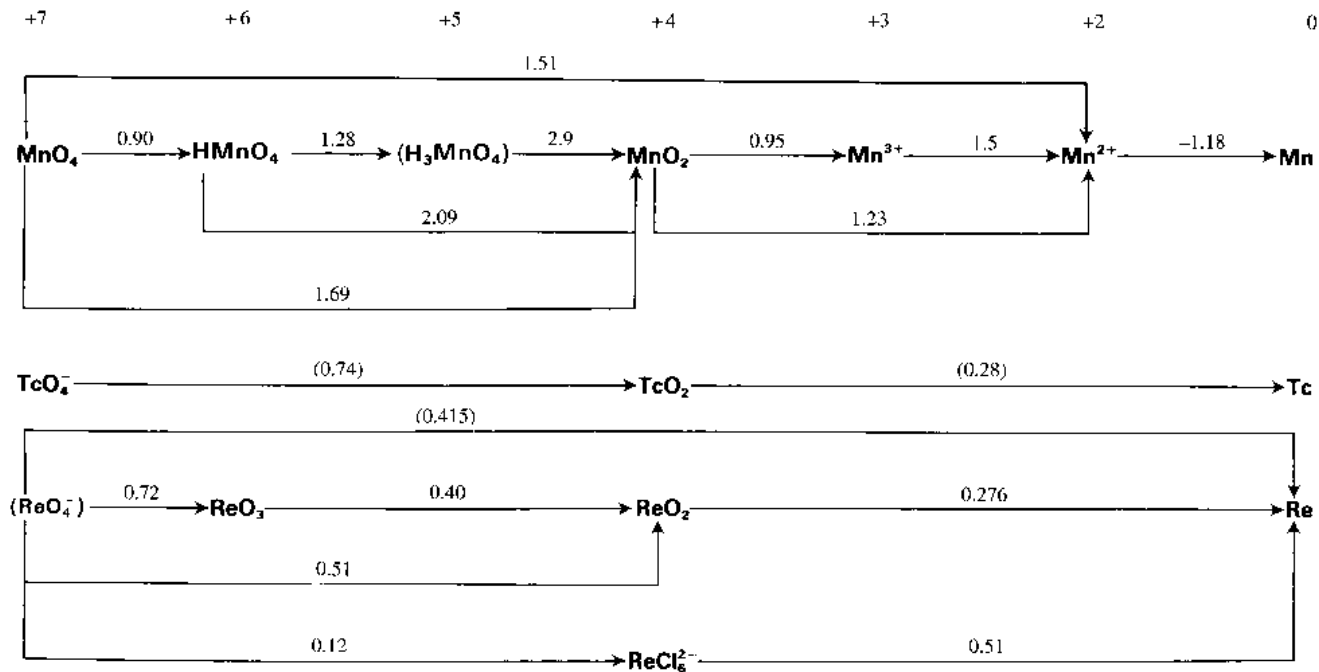
d Block · Group 6 (continued)

Basic solution**Acidic solution****Neutral solution****Basic solution**

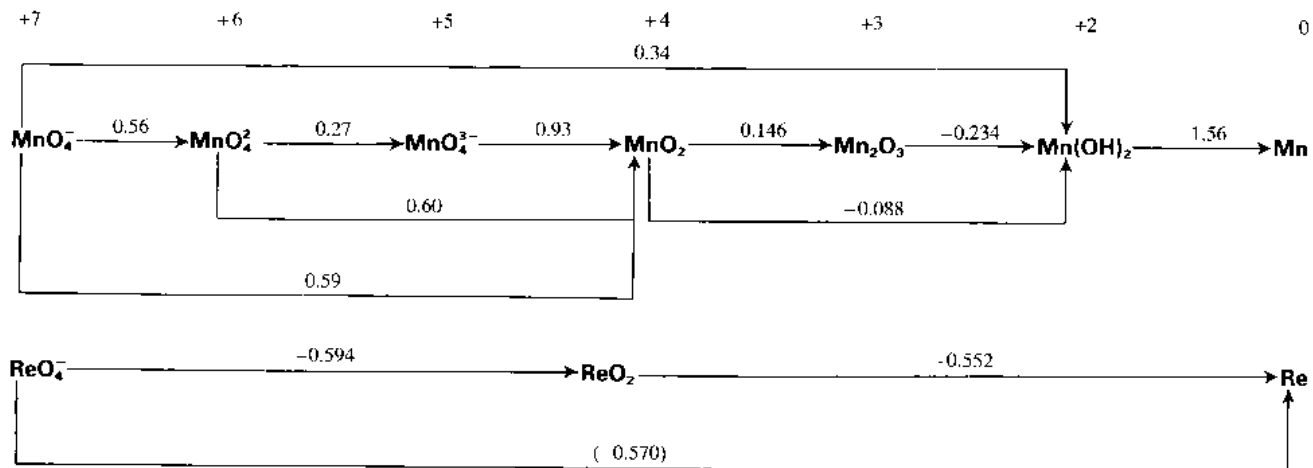
*Probably $[\text{W}_3(\mu_3\text{-O})(\mu\text{-O})_3(\text{OH}_2)_3]^{4+}$. See S.P. Gosh and E.S. Gould, *Inorg. Chem.* **30**, 3662 (1991).

d Block - Group 7

Acidic solution

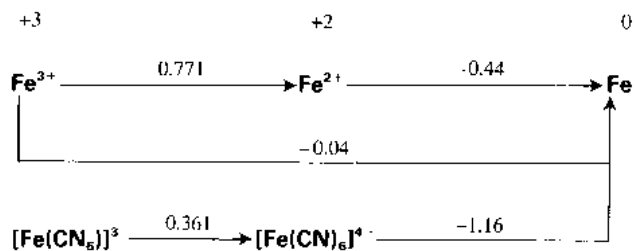


Basic solution

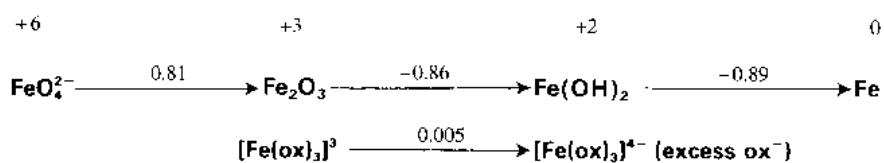


d Block · Group 8

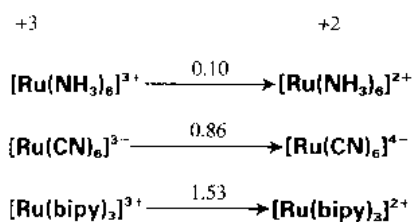
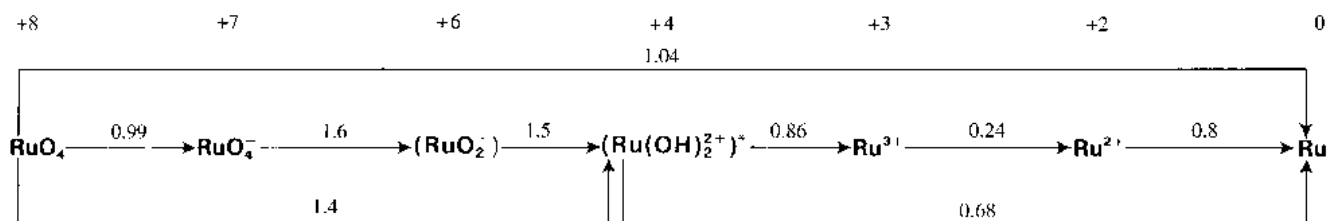
Acidic solution



Basic solution



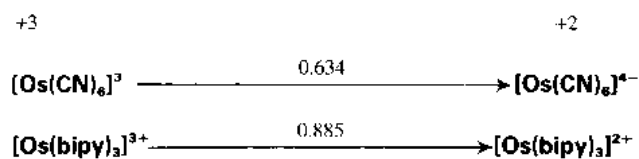
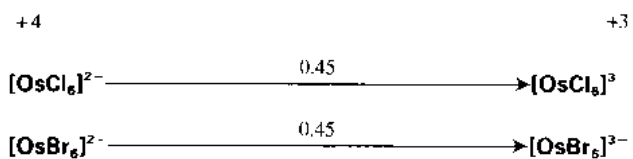
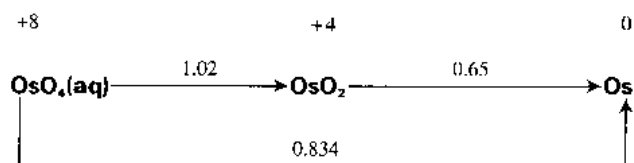
Acidic solution



* Likely to be $\text{H}_n[\text{Ru}_4\text{O}_9(\text{OH}_2)_{12}]^{(4-n)-}$. See A. Patel and D.T. Richten, *Inorg. Chem.* **30**, 3792 (1991).

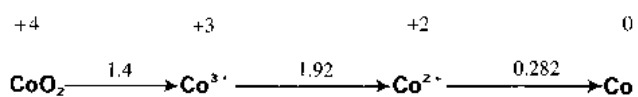
d Block · Group 8 (continued)

Acidic solution

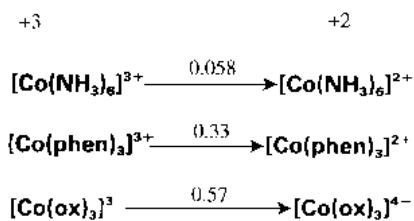


d Block · Group 9

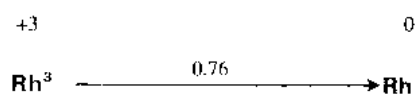
Acidic solution



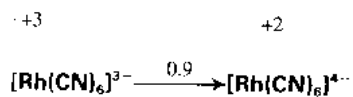
Neutral solution



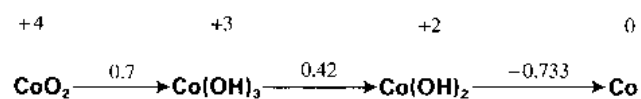
Acidic solution



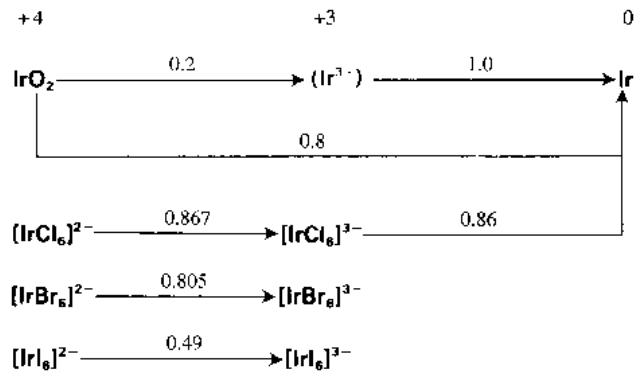
Neutral solution



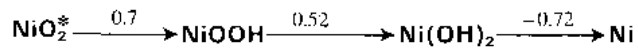
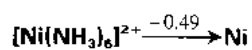
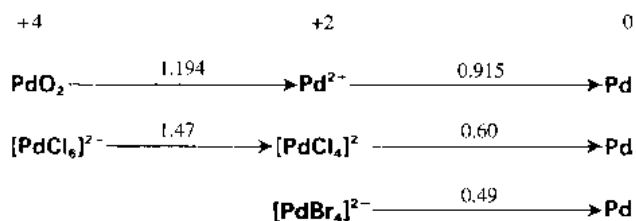
Basic solution



d Block · Group 9 (continued)

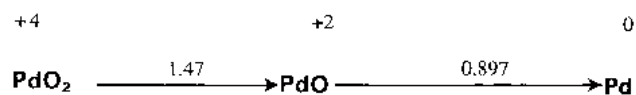
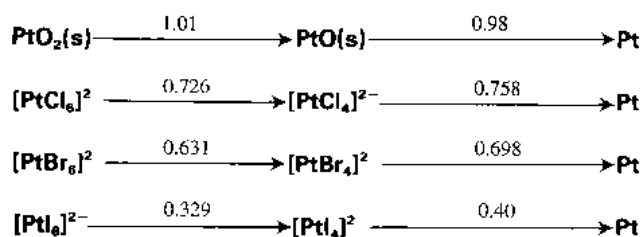
Acidic solution

d Block · Group 10

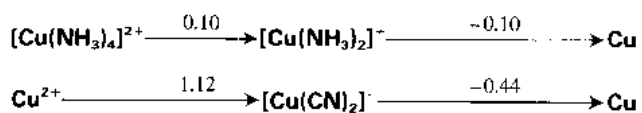
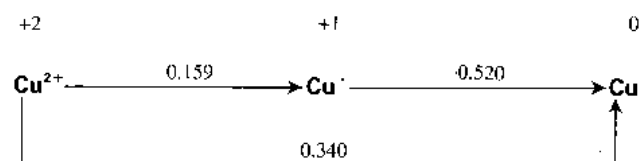
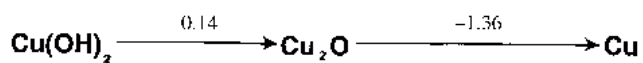
Acidic solution**Basic solution****Neutral solution****Acidic solution**

* Formulation uncertain.

d Block · Group 10 (continued)

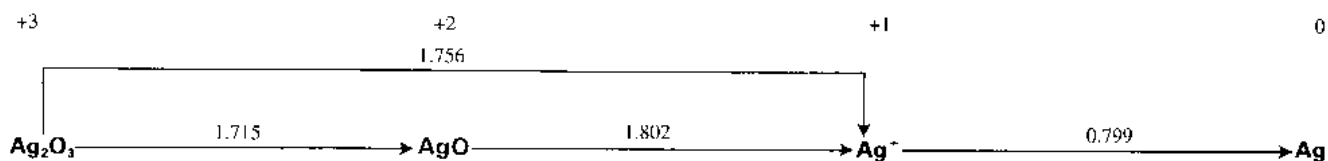
Basic solution**Acidic solution**

d Block · Group 11

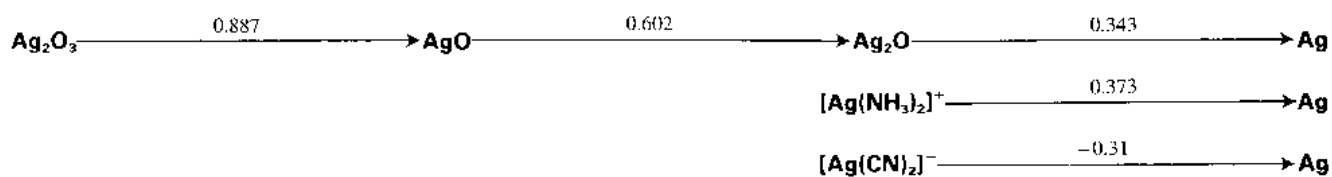
Acidic solution**Basic solution**

d Block · Group 11 (continued)

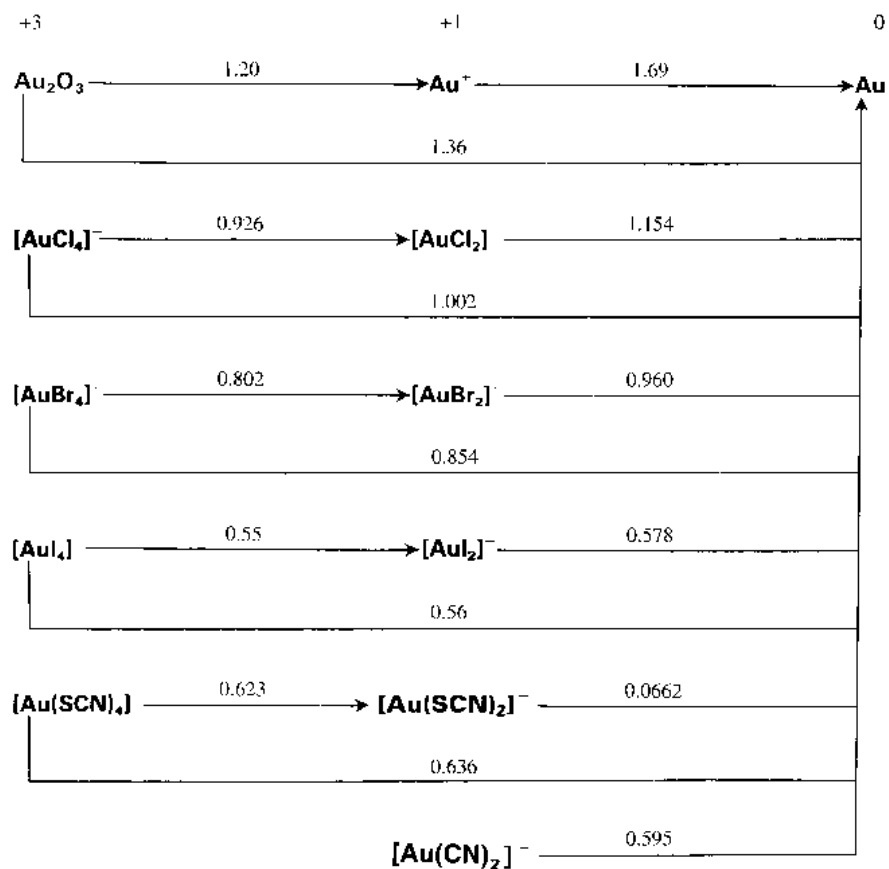
Acidic solution



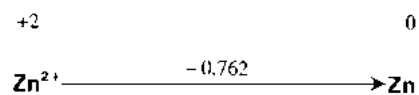
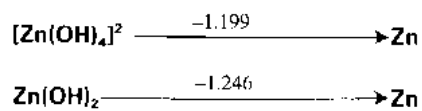
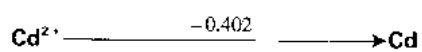
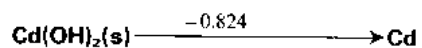
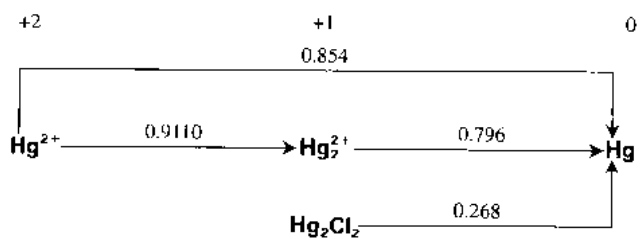
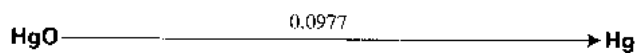
Basic solution



Acidic solution

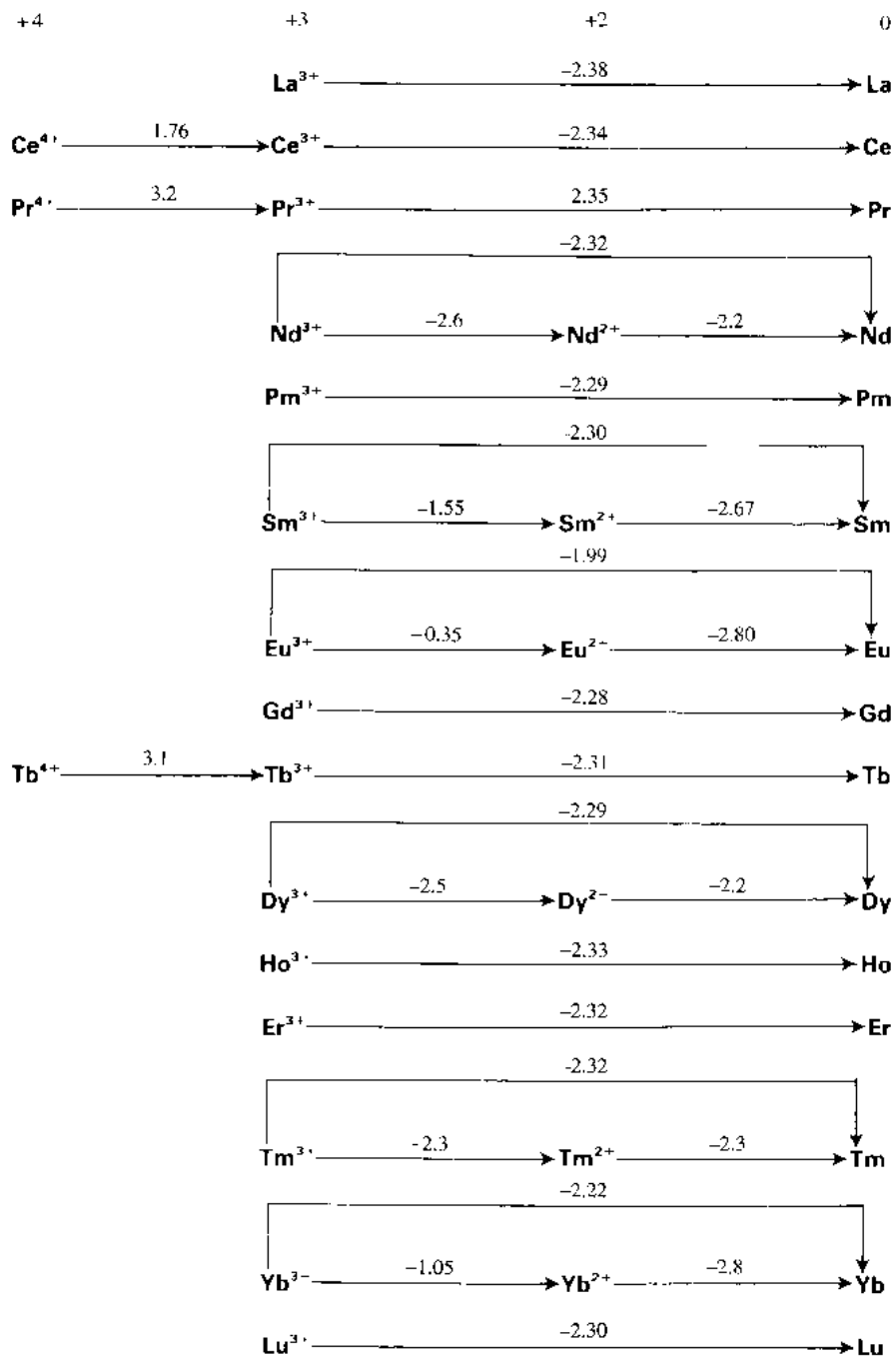


d Block · Group 12

Acidic solution**Basic solution****Acidic solution****Basic solution****Acidic solution****Basic solution**

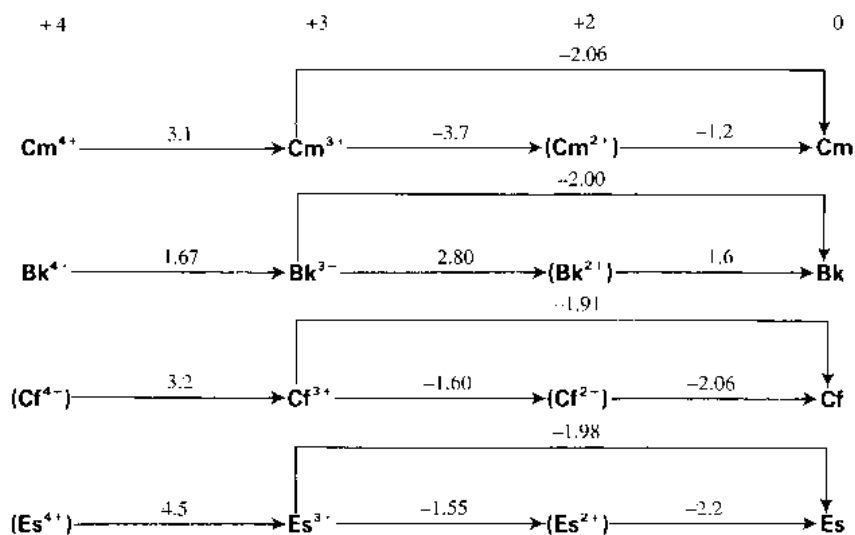
f Block · Lanthanides

Acidic solution



f Block · Actinides (continued)

Acidic solution



*Provided as supplementary material (electronic) with the 3rd edition of Inorganic Chemistry by Shriver and Atkins.