

Question #77580, Chemistry / Physical Chemistry

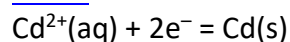
Use standard reduction tables to determine which of the following species will convert Cd^{2+} to Cd



Solution:

Standard Reduction Potentials table –

<http://www.chemeddl.org/services/moodle/media/QBank/GenChem/Tables/EStandardTable.htm>

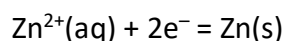


$$E = -0.403$$

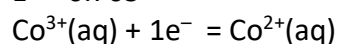
For the reductans:

Fe^{3+} can't be oxidated

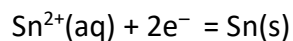
Pb^{2+} can't be oxidated



$$E = -0.763$$



$$E = +1.82$$



$$E = -0.14$$

To oxidize Ni but not Cu, E should be $E < -0.403$

Only one process in this area.

Answer:

Zn