

Question #77579, Chemistry / Physical Chemistry

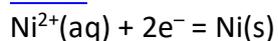
Which of the following species will oxidize Ni but not Cu?



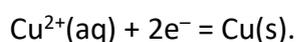
Solution:

Standard Reduction Potentials table –

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

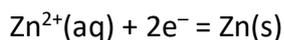


$$E = -0.25$$

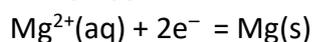


$$E = +0.337$$

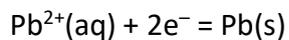
For the oxidants:



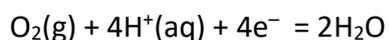
$$E = -0.763$$



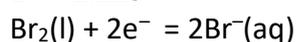
$$E = -2.37$$



$$E = -0.126$$



$$E = +1.229$$



$$E = +1.066$$

To oxidize Ni but not Cu, E should be $-0.25 < E < +0.337$

Only one process in this area.

Answer:

