

19. In which of the following reactions would there be no visible reaction at 25 °C?
- (a) A solid iron strip is placed in a solution of 1.00 mol L<sup>-1</sup> copper(II) sulfate.
  - (b) Bromine water and 2,3-dimethylbut-2-ene are shaken together.
  - (c) Chlorine gas is bubbled through a solution of 1.00 mol L<sup>-1</sup> potassium iodide.
  - (d) 1.00 mol L<sup>-1</sup> potassium dichromate and 1.00 mol L<sup>-1</sup> acetic acid are mixed together.