2. Sulfur can be obtained from hydrogen sulfide found in natural gas according to the equation below.

$$2\ H_2S(g) + SO_2(g) \rightarrow 2\ H_2O(g) + 3\ S(g) \qquad \Delta H > 0$$

Which one of the following changes will initially decrease the rate at which sulfur is produced?

(a) reduce the partial pressure of the hydrogen sulfide ($H_2S(g)$)
(b) increase the partial pressure of sulfur dioxide ($SO_2(g)$)
(c) add a metal catalyst to the reaction vessel
(d) heating the reaction vessel