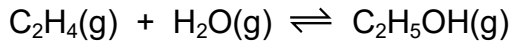


19 Ethanol is manufactured by the addition of steam to ethene.



The reaction conditions are 300 °C and 60 atm.

The forward reaction is exothermic.

Which rows describe the effect on the equilibrium yield of $\text{C}_2\text{H}_5\text{OH}$ when the stated change is made?

	change	equilibrium yield of $\text{C}_2\text{H}_5\text{OH}$
1	adding a catalyst	no change
2	decreasing the temperature	increases
3	decreasing the pressure	increases

A 1 and 2

B 1 and 3

C 2 only

D 3 only