2.3.2Temperature Even though it is often expected to perform cleaning at room temperature, some indus- tries apply heating to increase the cleaning rate and to remove harsh deposits.Goode et al. (2013) found that the dependence of adhesive force on temperature was related to the types of deposits and surfaces.For whey protein concentrate deposits, the adhesive force became high after being heated to a temperature above 70 ?C due to the denaturation of proteins.On the contrary, caramel deposits turned to be less adhesive to stainless steel surfaces with temperature increasing from 30 to 90 ?C [44].For in- stance, changing water temperature from 22 to 45 ?C can improve the rinsing effectiveness significantly when flushing reconstituted skim milk from stainless steel pipes.Using high temperature in a cleaning process should be thoroughly considered along with the chem- ical effectiveness, system complexity, operating cost and risk, etc.Higher media temperature can increase the diffusion rate of chemicals and the reaction rate, henceforth improve the chemical effectiveness.