

### Ultraviolet Practice #3

Heating ester **A** in methanol containing sodium methoxide and a trace of water converts it to alcohol **B** and sodium benzoate **C**. A 1.0 gram sample of **A** in 50 mL of methanol and excess sodium methoxide shows an absorbance of 0.773 at 293 nm. After adding a little water and heating, the absorbance is 0.600. The molar absorptivity of **C** at 293 nm is 3.4. How many milligrams of water have been consumed?

