Applications of Liquid Chromatography

Name Course Section Date

1. **Procedure for Gel Permeation Separation of the Dye Mixture containing Brillant Blue R, Red #40, and Yellow #5**

Estimated Volume

\_\_\_\_\_\_\_\_\_\_\_ Brillant Blue \_\_\_\_\_\_\_\_\_\_\_ Red #40 \_\_\_\_\_\_\_\_\_\_\_ Yellow #5

Elution Order (1 (first) – 3 (last)):

\_\_\_\_\_\_\_\_\_\_\_ Brillant Blue \_\_\_\_\_\_\_\_\_\_\_ Red #40 \_\_\_\_\_\_\_\_\_\_\_ Yellow #5

Justification:

Any Experimental Choices Made? (*If not, write N/A)*:

ADD PHOTOS BELOW:

* Sample moving through column
* Estimates of volumes

1. **Procedure for TLC of the Dye Mixture containing Red #40, Yellow #5, and Blue #1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *1=first*  *3=last* | *50/50/0* | 50/30/20 | 10/10/80 |
|  | General Elution Order | Rf | Rf | Rf |
| Blue #1 |  |  |  |  |
| Red #40 |  |  |  |  |
| Yellow #5 |  |  |  |  |

*X;Y;Z, where X=1-butanol, Y=acetone, and Z=water.*

Justification:

Any Experimental Choices Made? (*If not, write N/A)*:

ADD PHOTOS BELOW:

* Each separation with all colors visible (i.e., 3 TLC plates)

1. **Procedure for Reverse Phase Separation of the Dye Mixture containing Red #40, Yellow #5, and Blue #1**

Elution Order (1 (first) – 3 (last)):

\_\_\_\_\_\_\_\_\_\_\_ Blue #1 \_\_\_\_\_\_\_\_\_\_\_ Red #40 \_\_\_\_\_\_\_\_\_\_\_ Yellow #5

Justification:

Any Experimental Choices Made? (*If not, write N/A)*:

ADD PHOTOS BELOW:

* Sample moving through column
* Estimates of volumes