

Analytical Cumulative Exam  
October 2018  
S. Cologna

Topic: Microfluidics

*There are 6 questions for a total of 50 points. Passing is at 50%. Show your work to receive full credit. Be concise yet complete.*

1. Draw a microfluidic device and name 3 advantages to microfluidic devices. (10 pt)
2. How is flow controlled through a microfluidic device? (5 pt)
3. Name an appropriate detect for a microfluidics experiment and describe how this detection will take place. Be sure to describe the experiment and identify any significant benefits or drawbacks. (15 pt)
4. Electrophoresis is a common analytical tool that is performed in microfluidic devices. Draw or describe how this is carried out. (10pt)
5. What is a lab on chip? (5 pt)
6. Who is George Whitesides? Name one major contribution from him. (5 pt)