

Food Safety Laboratory Capacity Building

Module 6 Quiz

1. Identify some of the challenges of pesticide residue analysis. (select all that apply)

- a. Low concentration
- b. Large number of residues
- c. Many different matrices
- d. Very few applicable methods
- e. Column particle size

2. Which of these relationships apply in mass spectrometry? (select all that apply)

- a. Precursor and product ions
- b. Higher pressure and higher peaks
- c. Corona pin and ionization
- d. Corona pin and APCI
- e. Corona pin and ESI

3. What is an adduct?

- a. An ion combining an analyte of interest and an additive
- b. An ion combining an acid, a base and a product ion
- c. An additive used in a mobile phase
- d. None of the above

4. What is the process of drying droplets in the source called?

- a. Dissolution
- b. Desolvation
- c. Distanciation
- d. Dosing

5. How many rods are present in a quadrupole?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

6. What is a specific advantage of the MALDI source?

- a. It provides high resolution
- b. It works on a solid
- c. It is faster than ESI
- d. It is more specific because a single ion is produced

7. Why are veterinary drugs usually not amenable to GC analysis? (select all that apply)

- a. They are large molecules
- b. They are heat sensitive
- c. They are heat resistant
- d. They are polar

8. Where are product ions formed?

- a. The first quadrupole
- b. The second quadrupole
- c. The ionization source
- d. The collision chamber
- e. The TOF chamber

9. What is different between MALDI and ion trap MS?

- a. One is a high-resolution technique and not the other
- b. One is a source and not the other
- c. One is fast and not the other
- d. One is for heat resistant analytes and not the other

10. What is a (or are) reason(s) for using MS/MS for mycotoxins? (select all that apply)

- a. Can analyze multiple mycotoxins in the same test
- b. Can detect low concentrations
- c. Faster than individual analyzes
- d. Doesn't require natural fluorescence