**WHAT IS CLAIMED IS:**

1. A mass spectrometry ionization method comprising directing an ion beam in a mass spectrometer at a liquid or solid sample matrix containing analyte thereby ionizing and adding unbalanced charge to the analyte, wherein the flux of the ion beam is from about 1 $mA/cm^2$ to about 17 $mA/cm^2$.

2. The method of claim 1 further comprising directing the charged analyte through the interface of the mass spectrometer in synchrony with the duty cycle of the ion detector.

3. The method of either of claims 1 or 2 wherein the analyte is deposited upon discrete apices of the sample surface.

4. The method of any of claims 1 to 3 wherein the sample comprises bacteria, viruses or cells.

5. The method of any of claims 1 to 4 wherein the ion beam consists of protons whereby the analyte is protonated.

6. The method of any of claims 1 to 4 wherein the ion beam consists of anions or electrons whereby the analyte is deprotonated.

7. The method of claim 5 wherein the analyte comprises organic compounds having nitrogen, oxygen, or sulfur heteroatoms.

8. The method of any of claims 1 to 7 wherein the ion beam energy is from about 5 to about 50 electron volts.

9. The method of claim 8 wherein the ion beam energy from about 5 to about 10 electron volts.

10. The method of claim 6 where the anions comprise $NH_2^-$ or $H_3Si^-$.

**WHAT IS CLAIMED IS:**

1. A mass spectrometry ionization method comprising:

directing an ion beam at a liquid or solid sample matrix containing analyte thereby ionizing and adding unbalanced charge to the analyte, wherein the ion beam energy is from 5 to 10 eV.

2. The method of claim 1 further comprising directing the charged analyte through the interface of the mass spectrometer in synchrony with the duty cycle of the ion detector.

3. The method of claim 1 or 2 wherein the analyte is deposited upon discrete apices of the sample surface.

4. The method of any one of claims 1 to 3 wherein the sample comprises bacteria, viruses or cells.

5. The method of any one of claims 1 to 4 wherein the ion beam consists of protons whereby the analyte is protonated.

6. The method of any one of claims 1 to 4 wherein the ion beam consists of anions or electrons whereby the analyte is deprotonated.

7. The method of claim 5 wherein the analyte comprises organic compounds having nitrogen, oxygen, or sulfur heteroatoms.

8. The method of any one of claims 1 to 7 wherein the ion beam flux is from 1 $mA/cm^2$ to 17 $mA/cm^2$.

9. The method of any one of claims 1 to 7 wherein the ion beam comprises positive ions and the positive ions comprise protons, lithium ions, or cesium ions.

10. The method of claim 6 where the anions comprise $NH_2^-$ or $H_3Si^-$.