



**Shree Naranbhai Lalbhai Patel College of Pharmacy,
Umrah**



LC-MS parameters for compound optimization

WEBINAR REPORT

Date: 12/09/23

The recent webinar on "LC-MS Parameters for Compound Optimization" hosted by Shree Naranbhai Lalbhai Patel College of Pharmacy, Umrah, was a significant learning opportunity for B. Pharmacy students on 11th September 2023. The session was skillfully delivered by Mrs. Megha Jain and impeccably organized by Dr. Ashok Akabari, with the support and guidance of Principal Dr. Ketan Shah.

During the webinar, Mrs. Megha Jain provided a comprehensive and insightful exploration of the intricate aspects of Liquid Chromatography-Mass Spectrometry (LC-MS). She emphasized the critical parameters and methodologies crucial for optimizing compounds in the pharmaceutical field, making the subject matter accessible and engaging for the student audience.

Mrs. Jain's expertise and engaging presentation style held the students' attention throughout the webinar. Her real-world examples and practical insights added depth to the theoretical knowledge, leaving attendees with a more profound understanding of LC-MS applications.

This event proved to be a valuable addition to the academic experience of the B. Pharmacy students, as it equipped them with essential skills and knowledge that will undoubtedly prove beneficial in their future pharmaceutical endeavors. Kudos to the college for organizing such an informative and enlightening webinar.



Shree Naranbhai Lalbhai Patel College of Pharmacy,
Umrakh



LC-MS parameters for compound optimization

 **SHREE NARANJIBHAI LALBHAI PATEL COLLEGE OF PHARMACY**
(Vidyabharti Trust Institution, Umrakh)
Approved by AICTE, New Delhi and Affiliated to GTU, Ahmedabad.
Accredited by NBA 

**LC-MS parameters for
compound optimization**

 <p>Dr. Ashok H Akabari COURSE COORDINATOR SNLPCP, Umrakh</p>	 <p>Megha Jain Senior research associate Syngene international ltd</p>	 <p>Dr Ketan V Shah Principal SNLPCP, Umrakh</p>
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Date: 11/09/2023
Time: 10.30 to 11.30
Venue: Online Platform

Vidyabharti Campus, At & Po Baben, Ta: Bardoli, Di. Surat, Pin: 394601.



Shree Naranbhai Lalbhai Patel College of Pharmacy, Umrah



LC-MS parameters for compound optimization

The screenshot displays a Zoom meeting interface with a presentation slide titled "LC MS/MS Parameters for compound optimization". The slide includes a diagram of an ion trap mass spectrometer and a quote: "You can't make an omelette without breaking eggs".

LC MS/MS Parameters for compound optimization

"You can't make an omelette without breaking eggs"

The diagram shows the following components and processes:

- Sample injection into a filament.
- Electron beam ionization of neutral molecules.
- Formation of positively charged ions.
- Acceleration of ions by a magnet.
- Deflection of ions by a magnet.
- Ion exit slit.
- Collector.
- Recorder.

Participants visible in the meeting include Dr Ashok Akabari, Megha Jain, Harshil Patel, Ketan Shah, Tulsi Desai, Aarti Patel, and Visha's iPhone.

The bottom screenshot shows a slide titled "3. Ion Detector System" with the text: "Detector produce the signal from separated ions." It features a mass spectrum of water and a schematic of the ion detector system.

3. Ion Detector System
Detector produce the signal from separated ions.

Mass Spectrum of Water

Mass (m/z)	Relative Abundance
16	1.6
17	3.7
18	100

Legend for mass spectrum:

- 1 = H⁺
- 16 = O⁺
- 17 = [OH]⁺
- 18 = [H₂O]⁺

Ion Detector System Schematic:

- Ion Source
- High Pressure Cell
- Precursor Ion Mass Filter (Q1)
- Fragmentation Chamber (Q2)
- Fragment Ion Mass Filter (Q3)
- Detector
- Time



Shree Naranbhai Lalbhai Patel College of Pharmacy, Umrah



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The image displays two screenshots from a Zoom meeting. The top screenshot shows a slide titled "Electro spray: Overview" with a diagram of the electrospray ionization process. The diagram illustrates the flow from a liquid chromatography (LC) system through a nebulizing gas, droplet formation, desolvation and fission, gas phase ion generation, and finally to an orifice plate and curtain gas leading to a mass spectrometer (MS). Key components labeled include Nebulizing Gas, Droplet Formation, Desolvation & Fission, Gas Phase Ion Generation, Orifice Plate, Curtain Plate, and Curtain Gas. A voltage of 5kV is indicated. The bottom screenshot shows a video titled "Mass Spectrometry Tut..." with a person in a white lab coat and green gloves operating a piece of laboratory equipment, likely a mass spectrometer.