

## **SHREE NARANJIBHAI LALBHAI PATEL COLLEGE OF PHARMACY, UMRAXH**

### **Guest lecture Report**

**Dates:** 6<sup>th</sup> February 2021, Time: 10.00am to 01.00 pm

**Title:** A work shop on "**Application of UV-Visible Spectrophotometer Method for Multicomponent Analysis**"

**Resource Person:** Dr Pinak Patel, Associate Professor, Smt. S. M. Shah Pharmacy College, Ahemadabad, Gujarat

**No. Of Participants:** 30

#### **Summary of Session:**

IIC and IQAC of Shree Naranjibhai Lalbhai Patel College of Pharmacy, Umrakh will be organizing a Workshop for the students of 1<sup>st</sup> and 3<sup>rd</sup> sem M.Pharm., who have their UV spectrum data and want to develop UV Visible spectrophotometric method. A workshop on "**Application of UV-Visible Spectrophotometer Method for Multicomponent Analysis**" was conducted by **Dr Pinak Patel**, Associate Professor, Smt. S. M. Shah Pharmacy College, Ahemadabad, Gujarat. The event started at 10:00 am with a welcome speech by Dr. Ashok Akabari, Associate Professor, SNLPCP, UMRAXH. He welcomed the speaker of the event Dr Pinak Patel, M. Pharma., Ph.D., Dr. Dhiren P. Shah – Principal of SNLPCP, Faculties and Participants of the event.

This is a workshop on: a) how to develop and validate UV-Visible Spectrophotometer method for multicomponent analysis. Dr Pinak Patel discuss the following points during workshop:

1. He was highlighting the various UV Visible spectrophotometric method used for multicomponent analysis in pharmaceutical dosage form.
2. Criteria and range as well as requirement for multicomponent analysis method.
3. From the UV Visible spectrum which method is best applicable for the further development and validation.
4. Also, all students share their overlain UV spectrum and justification for the selection of method was discussed.

PG Students actually want to know the various UV visible multicomponent analysis method which can be helpful for the development and validation.

We are highly thankful to the Management of SNLPCP, Umrakh for extending help and support to conduct this workshop successfully.

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REC pinak patel is presenting chandni singh and 3 more 11:46 AM

# NATIONAL LEVEL WEBINAR ON Application of UV-Visible Spectrophotometer methods for multicomponent analysis”

By:  
Dr. Pinak Patel  
Associate Professor  
Smt. S.M. Shah Pharmacy College,  
Organized by / Presented @  
Shree Naranjibhai Lalbhai Patel College of Pharmacy, Umrah

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REC pinak patel is presenting Dhara Parekh and 9 more 10:24 AM

## Essential information while developing UV spectrophotometric methods of analysis

1. Solubility of component under analysis in a particular solvent.
2. Selection of appropriate solvent under analysis.
3. Absorptivity of components under analysis
4. Absorption maxima of component under analysis.
5. Relative dose (dose difference of formulation or proposed mixture) of components under analysis.
6. Type of excipient expected under analysis (UV active or inactive)

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REC pinak patel is presenting Pooja Misra and 9 more 10:39 AM

## Determination of PAN and ASP form synthetic mixture

> Selection of solvent

- Selection of solvent depends on three main parameters: solubility of drug,
- UV compatibility,
- stability of drug.

> ASP and PAN both are practically soluble and stable in methanol and methanol is one of the UV compatible solvent; therefore, methanol was selected as solvent to develop Derivative spectroscopy method for ASP and PAN.

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## Spectral Information

Fig.1:Recorded UV spectra of ASP 20 µg/mL.

Fig.2: Recorded UV spectra of PAN 5 µg/mL.

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REC pinak patel is presenting

## Determination of DAPA and SITA form synthetic mixture (Simultaneous equation method)

Criteria:

1. Ratio of drug component under analysis
2. Absorptivity difference at the selected concentration level
3. Availability of common solvent with similar solubility.
4. Difference in the absorption maxima of component under analysis.
5. Glen ratio obtained (After development) should be outside the range of 0.1-2.

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People (13) Chat

Add people Mute controls

IN CALL

Principal SMLPCE... (You)

Aayushi Maheswarshi

Chandni Singh

Jasmin Darbar

Jasr Shah

pinak patel

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REC pinak patel is presenting chandni singh and 4 more 11:16 AM

## Determination of DAPA and SITA form synthetic mixture (Simultaneous equation method)

Criteria:

1. Ratio of drug component under analysis
2. Absorptivity difference at the selected concentration level
3. Availability of common solvent with similar solubility.
4. Difference in the absorption maxima of component under analysis.
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