

2nd International Conference

Organized By

Ambe Durga Education Society's

Dadasaheb Balpande College of Pharmacy

(Degree and Diploma),

Near Swami Samarth Dham Mandir, Besa,
Nagpur-440037, Maharashtra, India.

**on 14th and 15th
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Theme:

**"Invigorating Research in
Pharmaceuticals:
Reasonable Industrial Approach"**

Venue: Hotel RE-GEN-TA,
CENTRAL Nagpur.
Jagnade Square,
Nandanvan, Nagpur,
Maharashtra, India.

Souvenir and Abstract Book

*"An event that is full of potentials to learn the latest trends in the
Pharma industry and to learn about the business culture."*



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PHARMACEUTICALS IN SPACE MISSION AS WATER RECOVERY SYSTEMS

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ABSTRACT

Nanotechnology is a fast growing area, involving the fabrication and use of nano sized materials and devices. Various nano composite materials play a number of important roles in modern science and technology including pharmaceutical science. Among these materials mesoporous materials covers large number of applications like adsorption. Santa Barbara Amorphous (SBA-15) is significant mesoporous silica with exclusive and important properties of highly ordered mesopores, hydrothermally stable and thick wall, profusely large surface area and huge pore volume which render it as promising applications in selective adsorption. Mesoporous silica has size 2-50 nm in diameter. The aim of this study was to develop innovative mesoporous silica capable of use in space mission for water recovery system. Synthesis of mesoporous silica (SBA-15) was done by sol-gel method. Particle size characterization of mesoporous silica (SBA-15) was done by Malvern Zetasizer and particle size was found to be 120.4 nm.

Keywords Nano technology, SBA-15, space missions, water recovery, Malvern Zetasizer.

FORMULATION AND EVALUATION OF SUSTAINED RELEASE TABLET OF AMBROXOL HYDROCHLORIDE

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ABSTRACT

This study shows the effects of combination of polymers (HPMC K4M, Xanthan gum and Guar gum) on the sustained properties of Ambroxol hydrochloride tablet. In the present work an attempt has been made to develop twice daily sustained -release matrix tablets of Ambroxol HCl using hydrophilic matrix materials such as hydroxyl propyl methyl cellulose K4M (HPMC K4M) and hydrophobic Xanthan gum and Guar gum. Among all the 9 formulating batches the F8 containing Xanthan gum and Guar gum, increase in concentration of Guar gum extend drug release. It can be concluded that use of combination matrices offers a useful means of formulating sustained release dosage forms for a sparingly water soluble drug like Ambroxol hydrochloride.

Keywords Sustained release, Ambroxol HCl