

SCMMMS News

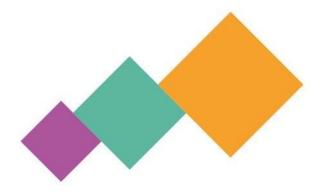
October 2022

Autumn greetings to you!

We had two successful joint webinars in September with very engaging audience. Many thanks to IOM3 Natural Materials Group for co-organising the webinar titled **Biomimicry & Natural Materials: Developments for future use** on 15 September and Cambridge and Anglian Materials Society (CamSoc) and Henry Royce Institute for co-organising **Developments in Energy Materials** webinar on 29 September. Huge thanks to all the speakers and participants of these webinars.

The SCMMMS Committee would also like to hear from you if you have any thoughts on future themes we could cover, or even volunteer to present. Please contact us using the details at the end.

We look forward to welcome you for the forthcoming events.



Upcoming SCMMMS Events

Polymers in Nanomedicine - 27 October





Polymers in Nanomedicine

27 October 2022 | 13:00 - 14:30 (GMT)



Chemical metrology to support QC and QA procedures of polymeric nanomedicine
Chair Dr. Ywen Pei MRSC CCHEM
National Physical Laboratory, UK
Nowledge of chemistry and structure of polymeric drug carriers is of great importance to the control of the performance and stability of nanomedicine which influence their biological fate. However, this information is often assurant after than measured mit this talk, I will distribution of particles and how this work supports OC and QA of polymeric nanomedicine.



The effects of ice annealing on reconstitution of a nanoparticle



neconstitution time to two minutes.

Analytical methods for measuring the encapsulation efficiency of polymeric nanoparticles
Dr. Sara Marques
University of Porto, Portugal
Acourse estimations of the amount of drug associated with nanoparticles (encapsulation efficiency, Elip are required during formulation development to establish dose-response efficiency, Elip are required during formulation development to establish dose-response efficiency and the required during formulation development to establish dose-response efficient separation of the free drug from the drug-loaded nanoparticles (NFs) prior to a quantification step commonly achieved by HPLC. Separative procedures ensuring the maintenance of NFs properties must be implemented, to avoid estimation errors due to NFs aftendors (e.g., leakage, adoption), distription of the drug precipitation events. In this talk, the impact of NFs material and of drug properties on events in this talk, the impact of NFs material and of drug properties or events in this talk, the impact of NFs material and of drug properties or the conditions to separate drug-alternative size-based exclusion strategy under NF2C to separate NFs from free drug for EE and concentration measurements will be also covered.



Polymeric materials for mRNA vaccine delivery Dr. Pratik Gumani

Dr. Pratik Gurman: University of Notlingham, UK
The COVID-19 pandemic has a soelerated the clinical application of mRNA-based vaccines, notably from Moderna (Spikel va.) and Pfizer-BioNTech (Comirnaty). In my talk I will cover our recent research into developing new highly active polymer materials for mRNA vaccine delivery and discuss from materials design is imprarate for performance within these

Southern Counties Materials Minerals and Mining Society (SCMMMS)



Registration (FREE): Polymers in Nanomedicine, Thu 27 Oct 2022 at 13:00

Download Flyer

Materials in Sport - 24 November

This session is focused on innovative materials used in sport from cricket bats, cycling helmets to a cricket stadium in Rwanda.

The webinar will be on 24 November from 13:00-14:30 and chaired by Duncan Edser (National Physical Laboratory).

Invited speakers are:

- Ben Tinkler-Davies (University of Cambridge)
- Ana Gatóo (University of Cambridge)
- **Prof. Fritz Vollrath** (University of Oxford)

More details will be available soon.

Other South East Local Society Events

MINSOUTH: AGM & Technical Meeting



Ken Darlington, Vice-President of Business Development for *Ultra Safe Nuclear Corporation* (USNC) will be conducting a virtual presentation on **Application of micro reactors at mining operations**.

Tuesday October 18th at 6 p.m.

This presentation can be watched in the Griffiths Room of The Counting House, 50 Cornhill, EC3V 3PD or online.

More details and registration: <u>AGM & Application of Micro Reactors in Mining Operations Lecture</u> <u>Tickets, Tue 18 Oct 2022 at 18:00 | Eventbrite</u>

Membership of SCMMMS

If you are an existing member of IOM3, you can manage your profile to set SCMMMS as one of your preferred networks. This will help us keep you updated of our activities.

The committee is also trying to appoint **representatives in the universities** within the region to act as coordinators either to promote or organise the events. We are keen to hear your views on how best SCMMMS can support to act as a valuable network for students and the practising researchers community.

If you would like to support in the activities of the society, including interest in joining the committee, please email SCMMMS at southerncountiesmmms@gmail.com

Contact Us

Nilmini Dissanayake (Chair) / Ana Robador (Secretary)

southerncountiesmmms@gmail.com



