



International Symposium on Applications of Thermal Analysis and Calorimetry (SATAC-2021; Dec 21-22, 2021)

Venue: University Department of Chemistry, Magadh University, Bodh Gaya
in association with
Indian Science Congress Association, Patna Chapter

Programme

(Timings are in IST, GMT + 5.30 hr)

Session-1: Pre-Symposium Lecture

Date: 20th December 2021

Time: 17.00 – 19.00 (IST)

Meeting Link (Zoom): Join Zoom Meeting

<https://us02web.zoom.us/j/82355631714?pwd=Vkg0Mk5ONlducEszTnczdDNjWTVMZz09>

Meeting ID: 823 5563 1714

Passcode: 703127

Time	Session Details	Session Chair
17.00-17.10 hrs	Chairman's remarks: Ranjit K Verma, Bodh Gaya (India)	
17.10-17.50 hrs	PL-1: A K Tyagi, Director, B.A.R.C., Mumbai (India) – “Metastable materials: Challenges and opportunities”	Ranjit Kumar Verma
17.50 – 18.20 hrs	PL-2: P K Srivastava, CDRI, Lucknow “Nanotechnology: A boon for medical science”	A K Tyagi
18.20 – 18.50 hrs	PL-3: Arun Pratap, MS Univ, Vadodara (India): “Role of Various Thermal Analysis Techniques in Materials Characterization”	

Session-2: SATAC 2021, Day 1Date: 21th December 2021

Time: 11.00 – 20.30 (IST)

Meeting Link (Zoom): Join Zoom Meeting

[https://us02web.zoom.us/j/84613675881?pwd=SIRiZmoySk90U1pwOUhhVVI
BZjZ2Zz09](https://us02web.zoom.us/j/84613675881?pwd=SIRiZmoySk90U1pwOUhhVVI
BZjZ2Zz09)

Meeting ID: 846 1367 5881

Passcode: 215997

Time	Session Details
11.00-12.00 hrs	Inauguration
12.00 – 12.30 hrs	PL-4: Crisan Popescu, Basic Research and Technology Development group at KAO European Research Laboratories, Darmstadt / Germany: “A tale of Hair. By Thermal Analysis”
12.30 – 13.10 hrs	PL-5: Tara Shankar Pal, IIT Kharagpur/University of Johannesburg, South Africa: “Surface Enhanced Raman Scattering (SERS) for Chemical Analysis”
13.10 – 13.40 hrs	Oral Presentations: <ul style="list-style-type: none">• OP-1: Dasrath Majhi, Indira Gandhi Centre for Atomic Research, Kalapakkam: “Measurement of thermal expansion and phase transformation temperature of injection casted U–6 wt.%Zr alloy”• OP-2: K Joseph, IGCAR, Kalapakkam, India: “Understanding thermal properties of Fe₂O₃-P₂O₅-Eu₂O₃ glass• OP-3: R. RAJA MADHAVAN, IGCAR, Kalapakkam, India: “Thermal expansion and specific heat capacity studies on simulated waste loaded titanium phosphate phases”
13.40 – 14.15 hr	Lunch Break
Session-3	
14.15 – 14.55 hr	PL-6: NOBUYOSHI KOGA, Hiroshima University, Higashi-Hiroshima, Japan:” Kinetic approach to complex reactions of solids using thermal analysis”
14.55 – 15.35 hr	PL-7: Peter Simon, Slovakia : “Frequent flaws in kinetic papers”

15.35 – 16.15 hr	PL-8: Julia Sempere, Spain: “Kinetic methods in Thermal Analysis: Traditional, Model-free & Non-Parametric”
16.15 – 16.45 hr	PL-9: Queenie Kwok , Canada: “Application of Thermal Techniques to the Hazard Characterization of Ammonium Nitrate and Ammonium Nitrate-Based Explosives”
16.45 – 17.00 hr	Break
17.00 – 17.40 hr	PL-10: Imre Szilagy, Budapest, Hungari; “Thermal properties of carbon nanostructures and nanocomposites”
17.40 – 18.20 hr	PL-11: JIŘÍ MÁLEK, University of Pardubice, Studentská 95, Pardubice, Czech Republic: “ Stability of chalcogenide glassy materials revealed by methods of thermal analysis”
18.20 – 18.50 hr	IL-1: Arun Pratap, Vadodara (India): “Studies on phase transformations, thermal stability and related thermodynamic parameters using thermo-analytical techniques”
18.50 – 20.30 hr	<p>Oral Presentation</p> <ul style="list-style-type: none"> • OP-4: H Jena, BARC: Structural and thermal analysis of sodium niobium phosphate glasses • OP-5: Venkat Krishnan: Enthalpy increment measurements of $[U_y Tb_{1-y}]O_{2\pm x}$ ($y = 0.8$ and 0.6) solid solutions • OP-6: Supratim Mukherjee, IGCAR (Indira Gandhi Centre for Atomic Research, Kalapakkam) HBNI, India: Performance evaluation of indigenously developed drop calorimeter for measurement of thermal properties of nuclear materials. • OP-7: Naina Raje, BARC: Application of Thermal Analysis for moisture determination in CO₂ gas cylinders. • OP-8: Anand Aswar: Synthesis, spectral, biological, fluorescence and thermal decomposition studies of some transitional metal complexes of tridentate hydrazone ligand. • OP-9: Aswar A S (Amravati, India): New tridentate Schiff base metal complexes: synthesis, physicochemical, biological and thermoanalytical behaviour.

Session-4: SATAC 2021, Day 2

Date: 22nd December 2021

Time: 09.00 – 18.30 Hrs (IST)

Meeting Link (Zoom): Join Zoom Meeting

<https://us02web.zoom.us/j/89310561521?pwd=bEovTGxPYUVWYy9YaUZLSWU4RVB1QT09>

Meeting ID: 893 1056 1521

Passcode: 314074

Time	Presentation
09.00 – 10.00 hrs	Oral Presentation <ul style="list-style-type: none">• OP-13: K Joseph : “Performance evaluation of indigenously developed drop calorimeter for measurement of thermal properties of nuclear materials.• OP-10: Navin, Vadodara: Thermal analysis of various PMMA/PS polymer blends• OP-11: Margi Patel, Vadodara : Crystallization kinetics of ZBLAN glass”• OP-12: Abhishek: The effect of fiber drawing on thermal and melt behavior of gel-spun ultra high molecular weight polyethylene fibers
10.00 – 10.40 hrs	PL-12: Dr. A. R. Saxena, President Elect, Indian Science Congress Association and Ex Director, DMSDRE (Kanpur): “Role of Thermal Studies in the development of ceramic material precursors suitable for SiC polytypes”
10.40- 11.20 hrs	PL-13: Dr. P.K.Srivastava, Lucknow- “Bioinspired Engineering: Learning Science from Nature ”
11.20 – 13.30 hrs	Oral Presentation <ul style="list-style-type: none">• OP-13: A S Singh , DMSRDE, Kanpur (India): “Synthesis and thermal analysis of silicon-containing bisphthalonitrile resin”

	<ul style="list-style-type: none"> • OP-14: Amit Singh, DMSRDE, Kanpur: “Synthesis and Thermal Analysis of Bis-adamantylated Resorcinol as an Antioxidant • OP-15:C P Patel: Thermal stability analysis of sugar alcohol for latent heat thermal energy storage system • OP-16: Suman Shekhar: Thermal analysis of coals of different ranks • OP-17: Rashmi, Gaya: Thermal analysis of N-isopropylacrylamide (NIPAM) based thermoresponsive hydrogels. • OP-21: Naresh Kumar, Madhepura (India): “Multifunctional benzothiazole derivative Schiff base complex”.
13.30 – 14.30 hrs	Lunch break
Session-5 Crossroads in Chemistry	
14.30 – 16.00 hrs	Oral Presentation <ul style="list-style-type: none"> • OP-22: Sanjay Kumar , Aurangabad (India): “Chemical constituents of different species of cassia genus” • OP-23: Premlatha SJ: “Cytotoxic studies on MCF-7 cell line for Aspergillus niger and Aspergillus nidulans fungal extracts from Cassia fistula leaves • OP-24: Dilip Kumar, Gaya College, Gaya (India): “ Structure and thermal properties of lignins : characterization FT-IR & DSC. • OP-25:Punit Kumar, Gaya (India): “Thermal properties analysis of combined mineral wool and silica aerogel- experimental studies” • OP-26: M. Shamona, Tirunelveli (India): “Electronic Structure, Hirshfeld Surface Analysis and DFT study of 4-fluoro-2-[(E)-2-pyridiyliminomethyl]-phenol”
16.00 – 17.30 hrs	Oral Presentation

	<ul style="list-style-type: none">• OP-27: Manoj Kumar, Bihar (India): “Biological evaluation of some isoxazole compounds used in pharmaceutical industry”• Late abstracts
17.30 – 18.30 hrs	Closing