

KaSAM – 2016 TECHNICAL PROGRAMME

Venue: Pokhara University // Mount Kailash Resort, Lake Side, Pokhara

Registration: 7:30 – 8:30 (everyday) and during breaks

DAY I. MONDAY, OCTOBER 17, 2016

<p><i>Kathmandu Autumn School on Chemistry and Chemical Technologies(KASChem)-2016 Part I: Recent Developments and Research Trends in Synthesis, Characterization and Applications of Nanomaterials</i> (Short Course for young scientists and students) <i>Venue: Pokhara University, Lekhnath, Pokhara, Nepal</i> <i>Chairpersons: Dr. Rameshwar Adhikari (Tribhuvan University, Kathmandu), Dr. Khem Raj Joshi (Pokhara University, Pokhara), Dr. Bhim Kafle (Kathmandu University, Dhulikhel)</i></p>		
0830- 0840		Welcome and Introduction
0840-0920	TL1	Do We Need Sciences? <i>Prof. Jean Marc Saiter, Onyx Development , Groupe Nutriset, FRANCE</i>
0920- 0950	TL2	Basics of Nanomaterials Synthesis <i>Dr. Netra Lal Bhandari, Tribhuvan University, Kathmandu, NEPAL</i>
0950- 1020		Tea/Coffee Break
1020-1100	TL3	Atomic Force Microscopy for the Nanoscale Characterization of Polymers - Morphology, Mechanical Properties and Beyond <i>Prof. Holger Schönherr, University of Siegen, Siegen, GERMANY</i>
1110- 1140	TL4	Depth-sensing Indentation Techniques for Polymers and Polymer Nanocomposites <i>Dr. Ralf Lach, Polymer Service GmbH Merseburg, Merseburg/Saale, Germany</i>
1140- 1300		Lunch Break
1300- 1340	TL5	Nanostructuring by Block Copolymers <i>Prof. Shigeru Okamoto, Nagoya Institute of Technology, Nagoya, JAPAN</i>
1340- 1420	TL6	Magnetic Magic: Molecules, Materials and Objects as Viewed by Atomic Nuclei <i>Prof. Bernhard Blümich, RWTH Aachen University, Aachen, GERMANY</i>
1420- 1450		Tea/Coffee Break
1450- 1530	TL7	Polymers for Biomedical Applications <i>Dr. Jakub Sirc, IMC, Academy of Sciences of the Czech Republic, CZECH REPUBLIC</i>
1530- 1600	TL8	Let's Walk Around Food Technology and its Evolution in Nepal <i>Ms. Rekha Lecomte, Onyx Development , Groupe Nutriset, France</i>
1600-1630		Break
1630- 1730		Opening Ceremony followed by Dinner <i>Venue: Mt. Kailash Resort, Lake Side, Pokhara</i>
	SL1	Science, Technology, Engineering and Math (STEM): Changing the World One Bit at a Time <i>Gwendolyn Bluemich , Strategic Education & Workforce Development Initiatives, GLOBAL FOUNDRIES, USA</i>

TL = Tutorial Lecture, SL = Special Lecture for Young Scientists

DAY II. TUESDAY, OCTOBER 18, 2016

Keynote Lectures	
0900- 0930	<i>Bernhard Bluemich, RWTH Aachen University, Aachen, GERMANY</i> Compact NMR for Nondestructive Materials Testing, Benchtop Chemical Analysis, and Potentially Point-of-Care Medical Diagnostics
0930 - 1000	<i>Amit Das, Leibniz-Institut für Polymerforschung, Dresden, GERMANY</i> Smart Rubbers: Some Recent Development
1000 - 1030	Tea/Coffee Break
Symposium: Structure-Properties Correlations I	
1030- 1055	<i>Vimal Katiyar, Indian Institute of Technology Guwahati, INDIA</i> Stereocomplex Polylactic Acid (sc-PLA) Based Bionanocomposites
1055- 1120	<i>Ralf Lach, Polymer Service GmbH Merseburg, Merseburg, GERMANY</i> Advanced Short-Term Approaches to Estimate the Long-Term Mechanical Behaviour of Polymers at Static Loading Conditions
1120- 1135	<i>Biraj Dhungana, Kongju National University, South KOREA</i> Electrical Conductivity, Flow-ability, Mechanical Strength and Water Absorption of PC/Expandable Graphite Composites for Bipolar Plates of PEMFC
1135- 1150	<i>Rahul Patwa, Indian Institute of Technology, Guwahati, INDIA</i> Study on hydrolytic degradation behaviour of PLA and PLA–silk nanocomposites
1150- 1215	<i>C. K. Das, P. G Department of Applied Physics & Ballistics, Odisha, INDIA</i> Transition Metal Compound Containing Hybrid Nano Composites for Supercapacitor Applications
1215 - 1340	Lunch Break
Symposium: Structure-Properties Correlations II	
1340- 1405	<i>Narayan Adhikari, Tribhuvan University, Kathmandu, NEPAL</i> First-Principles Study of a Molecular Adsorption of Aater onMoS₂ /Graphene Heterostructures
1405-1430	<i>Jagadeesh Bhattarai, Tribhuvan University, Kathmandu, NEPAL</i> Tailoring of Green Corrosion Inhibitors in Nepal – An Overview
1430-1445	<i>S. R. Bhandari, Condensed Matter Physics Research Center, Lumbini, NEPAL</i> Magnetic Phase Transition with Stable Half-metallic State in Sr_{2-x}LaxCoO₄
1445-1500	<i>Koudai Suzuki, Nagoya Institute of Technology, Nagoya, JAPAN</i> A Structural Study of OBDD and OBDG in a Blend System by SAXS Analysis Based on Paracrystal Theory with Distortion
1500-1515	<i>Narendra S. Patil, Bhusawal Arts Science, Jalagaon INDIA</i> Kinetic and Thermodynamic Study of Mixed Crystals of Cadmium-Barium Levo-Tartrate Dehydrate Grown in Silica Gel
1515-1530	<i>Prakash Bhattarai, Tribhuvan University, Kathmandu, NEPAL</i> Detail Study of the Ionospheric Total Electron Content (TEC) and Electron Density Variations
1530 - 1600	Tea/Coffee Break
Symposium: Structure-Properties Correlations III	
1600-1625	<i>Jean Marc Saiter, Université de Normandie, Mont Saint Aignan Cedex, Rouen, FRANCE</i> Is it Possible to Get an Identity Card for Very Soft materials by means of Indentation Measurements
1625-16450	<i>Bhanu Bhakta Neupane, Amrit Campus, Tribhuvan University, Kathmandu, NEPAL</i> Tracking the Movement of a Nanocar on Flat Surfaces with the Help of Single Molecule Fluorescence Microscopy
1650-1715	<i>Shila Maskey, Tribhuvan University, NEPAL</i> Development of a Method for the Characterization of PM2.5 Produced from Burning Biomass Fuels
1715-1740	<i>Jan Nisar, University of Peshawar, PAKISTAN</i> Use of Cobalt Doped Molecular Sieve LZ-52 as Catalyst for the Conversion of Polypropylene Waste into Valuable Products
1740- 1800	<i>M. C. Adhikary, FM University Balasore, Odisha, INDIA</i> Effects of 1D and 2D C- Nanofiller as Compatibilisers to Develop Flexible Thermoplastics Nano Composites

End of Technical Sessions (Day II)

DAY III. WEDNESDAY, OCTOBER 19, 2016

Keynote Lectures	
0830- 0900	<i>Ashutosh Tiwari, Linköping University, Linköping, SWEDEN</i> Biosensors and Bioelectronics Centre, IFM, Linköping University, Linköping, SWEDEN Digital Health Care – Perceptions of Living Laboratory
0900- 0930	<i>Shinichi Sakurai, Kyoto Institute of Technology, Kyoto, JAPAN</i> Grain Growth for Spherical Microdomains in Block Copolymer Thin Films Where The (110) Planes of The BCC Lattice Are Spontaneously Oriented Parallel to The Surface
0930 - 1000	<i>Hirokazu Hasegawa, Kyoto Institute of Technology, Kyoto, JAPAN</i> 2D-Network Structures in Block Copolymer/Homopolymer Blends
1000 - 1030	Tea/Coffee Break
Symposium: Science, Technology & Innovations for Nepal	
1030- 1055	<i>Dinesh Raj Bhujju, Nepal Academy of Science and Technology, Lalitpur, NEPAL</i> STI for Nepal to Catch-up with the World
1055- 1120	<i>Rabindra Prasad Dhakal, Nepal Academy of Science and Technology, Lalitpur, NEPAL</i> Scope and Challenges of Materials Processing Technologies for Energy and Materials Generation from Waste Management of the Country
1120- 1135	<i>Ajaya Bhattarai. M. M. A. M. C, Tribhuvan University, Biratnagar, NEPAL</i> Green Synthesis of Silver Nanoparticles for Detecting Heavy Metals in Environmental Samples
1135- 1150	<i>Netra Lal Bhandari. Tribhuvan University, Kathmandu, NEPAL</i> Compatibilizer Effect on Morphology, Thermal, Mechanical and Water Absorption Behavior of Natural Fiber Based Polymer Composites
1150-1205	<i>Jarina Joshi, Tribhuvan University, Kathmandu, NEPAL</i> Ethanol Production by Electrochemical Redox Combination of Yeast Cells
1205 -1220	<i>Bhim P. Kafle, Kathmandu University, Dhulikel, Kavre, NEPAL</i> Effect of Calcination Environments and Plasma Treatment on Optical and Electrical Behaviors of Fluorine Doped Tin Oxide (FTO) Transparent Thin Films
1220 - 1340	Lunch Break
Symposium : Biomaterials + Synthesis and Application of New Materials I	
1340- 1405	<i>Valerio Causin, Università degli Studi di Padova, Padova, ITALY</i> Thermo- and pH-Responsive Hydrogels Based on Electrospun Fibres: Preparation and Characterization
1405-1430	<i>Lenka Poláková, IMC, Academy of Sciences of the Czech Republic, CZECH REPUBLIC</i> Synthetic Hydrogels for Wound Healing
1430-1445	<i>Ummul Khair Fatema, University of Dhaka, Dhaka, BANGLADESH</i> Nanocomposites of Polyaniline with Silver Nanoparticles Prepared using Water in Oil Microemulsions as Antibacterial Agents
1445-1500	<i>Sujit Kumar Shah, M. M. A. M. C, Tribhuvan University, Biratnagar, NEPAL</i> Effect of Methanol on Surface Properties of Cetyltrimethylammonium Bromide(CTAB) at Different Temperatures
1500-1515	<i>K. M. Sachin, Central University of Gujarat, Gandhinagar, INDIA</i> Micellisation of Cationic- and Anionic-rich Mixed Surfactants at T = 293.15, 298.15 and 303.15 K
1515-1530	<i>N. S. Jayakumar, R.K.M. Vivekananda College, Chennai, INDIA</i> New Materials in Nanofluids
1530-1730	Tea/Coffee Break & POSTER SESSION

End of Technical Sessions (Day III)

DAY IV. THURSDAY, OCTOBER 20, 2016

Keynote Lectures	
0830- 0900	<i>Jakub Sirc, IMC, Academy of Sciences of the Czech Republic, CZECH REPUBLIC</i> Electrospun Micro/Nanofibrous Carriers for Local Drug Delivery
0900- 0930	<i>Holger Schönherr, University of Siegen, Siegen, GERMANY</i> New Approaches to Detect Bacterial Infections with Advanced Polymers
0930 - 1000	<i>Shigeru Okamoto, Nagoya Institute of Technology, Nagoya, JAPAN</i> Singular-Value-Decomposition Analysis of SAXS in Order-Order Transition Between Ordered Bi-continuous Network Structures of Double Diamond and Double Gyroid Does an Intermediate Structure Exist?
1000 - 1030	Tea/Coffee Break
Symposium : Synthesis and Application of New Materials II	
1030- 1055	<i>Susanta Banerjee, Indian Institute of Technology, Kharagpur, INDIA</i> Designing Cardo Polymers and Membranes Thereof for Efficient Gas Separation
1055- 1120	<i>Dayaghan Rane, Dadasaheb D. N. Bhole College, Maharashtra, India</i> Synthesis, Optical and Electrical Characterization of Spray Pyrolyzed CdS_xSe_{1-x} Thin Films
1120- 1145	<i>David E. Motaung, DST/CSIR National Centre for Nanostructured Materials, SOUTH AFRICA</i> Fabrication of Chemiresistive Sensors Based on CeO₂ Mixed and Doped Metal Oxide Composite Nanostructures: Their Role in Photovoltaic and Magnetic Properties
1145- 1210	<i>Andreas Leuteritz, Leibniz-Institut für Polymerforschung Dresden, GERMANY</i> LDH – Additive for Sophisticated Nanocomposite Materials
1210-1235	<i>Peter R. Makgwane, DST/CSIR National Centre for Nanostructured Materials, SOUTH AFRICA</i> Ruthenium Nanocomposites on Metal Oxide, Carbon and Polymer Supports for Redox-Catalyzed Oxidation and Hydrogenation Reactions
1235 - 1340	Lunch Break
Symposium : Natural Products and Pharmaceuticals for Nepal	
1340- 1405	<i>Niranjan Koirala, Nobel College, Pokhara University, Sinamangal, Kathmandu, NEPAL</i> Bioconversion of cholesterol using glucosyltransferase and methyltransferase isolated from Streptomyces: Genome mining, cloning, bioconversion, GC-MS characterization and hypothesis on evolution of sterol tailoring enzymes in Streptomyces
1405-1430	<i>Bishnu Prasad Pandey, Kathmandu University, Dhulikhel, Kavre, NEPAL</i> Characterization and Identification of the Chemical Constituents of Essential Oils and Methanol Extract of Artemisia vulgaris and Gaultheria fragrantissima by GC-MS and HPLC
1430-1455	<i>Lok Nath Neupane, Inha University, South KOREA</i> Diols-Responsive Disassembly and Assembly of Nanoparticles of Peptides for Ratiometric Fluorescence Sensing of Diols Including Monosaccharides in Aqueous Buffered Solution
1455-1505	<i>Dinesh Chaudhary, Pokhara University, Pokhara, NEPAL</i> In vitro Study on Inhibition of Calcium Oxalate Crystallization by Methanolic Leaf Extract of Murraya koenigii
1505-1530	<i>Paras Nath Yadav, Tribhuvan University, Kirtipur, Kathmandu, NEPAL</i> Innovation of Anticancer Activity of Novel Thiosemicarbazones
1530 - 1600	Tea/Coffee Break
1600-1700	Closing and Prize Distribution Ceremony, Farewell

End of Technical Sessions (Day III)

End of KaSAM-2016

LIST of POSTERS (Poster Presentation: Oct 19, 2016)

Poster Number	Title of poster & author(s)
1	Synthesis of hydroxyapatite nanoparticles and study their composite with biodegradable polymer and epoxy resin <i>Dipak Baram, Dhanikala Thapa, Gokarna Pandey, Rameshwar Adhikari</i>
2	The conductivity study of cetrimide in absence and presence of NaNO_3 , Na_2SO_4 and Na_3PO_3 salts at different temperatures <i>Nabin Basnet, Pratiksha Neupane, Pratima Karki, Pranita Rai, Ajaya Bhattarai</i>
3	Sodium dodecyl sulfate/1-butanol/cyclohexane/water microemulsions: Percolation phenomena and microstructural phase transition <i>Ferdousi Begum, M. Yousuf A. Mollah, M. Muhibur Rahman, Md. Abu Bin Hasan Susan</i>
4	Status of use of ethno-medicines in dog and snake bite at Attariya-12, Kailali, Nepal <i>Dinesh Chaudhary, Manoj Pandit, Suman Giri, Khem Raj Joshi</i>
5	In vitro study on inhibition of calcium oxalate crystallization by methanolic leaf extract of <i>Murraya koenigii</i> <i>Dinesh Chaudhary, Ram Milan Rana, Sanjita Paudel, Sangita Timsina, Bishnu Prasad Neupane, Komal Prasad Malla</i>
6	Structural and antibacterial properties of some heavy metals containing Ayurvedic drugs <i>Prasamsha Panta, Tika Ram Bhandari, Bidit Lamsal, Bhanu Bhakta Neupane, Bidur Rijal, Antonella Esposito, Rameshwar Adhikari</i>
7	Extraction of microcrystalline cellulose and comparing its effects with commercial microcrystalline cellulose on biodegradable polymer composites <i>Jyoti Giri, Hai Hong Le, Ralf Lach, Wolfgang Grellmann, Hans-Joachim Radusch, Rameshwar Adhikari, Goerg Hannes Michler, Jean Marc Saiter, Sven Henning</i>
8	Electricity generation from Bagmati waste water through microbial fuel cells: An experimental and statistical analysis <i>Purak Adhikari, Raman Ghimire, Bimala Dhakal, Jarina Joshi</i>
9	Isolation and characterization of chitosan from shell of fresh water prawn <i>Binod Kumar Dulal, Ram Prasad Baral, Shanta Pokhrel, Rameshwar Adhikari</i>
10	Comparative study of physical properties of polycrystalline and nanocrystalline $\text{Y}_2\text{Ir}_2\text{O}_7$ <i>Vinod Kumar Dwivedi, Soumik Mukhopadhyay</i>
11	Role of polymer chain architecture in dispersion of functionalized clay nanosheets <i>Supriya Gupta, Paresh Chokshi</i>
12	Anti-diabetic Stevia medicinal plant embedded with nanoparticles <i>S. Jayakumar, N. S. Subashree, Preetha Mary George, P. Divya, M. Muthukumaran, Dharani</i>
13	Effect of flourine concentration, film thickness, calculation environment and plasma treatment on structural, optical and electrical properties of fluorine-doped tin oxide thin films <i>Madhav Kafle, Ramesh Bhatta, Bhim Prasad Kafle, Lila Pradhan Joshi, Deepak Prasad Subedi, Armila Rajbhandari</i>
14	Structural, morphological and optical properties of nanocrystalline $\text{CdS}_{1-x}\text{Se}_x$ thin films grown by thermal evaporation techniques <i>Milind Kale, Deelip Bhavsar</i>
15	Organohypervalent iodine: Promising reagents in current organic synthesis <i>Raj Kamal</i>
16	Preventive role of fish oil on chemotherapy-induced off-target toxicity <i>Sunil Kandel, Ankit Pandeya, Pradeep Subedi</i>
17	Immortalization of bone marrow and placental mesenchymal stem cells by transfection <i>Udhab Karki, Tilak R. Shrestha, Shashi Singh</i>
18	Conversion of waste plastics into fuels and chemicals <i>Anjali Karn, Parash Acharya, Rabindra Prasad Dhakal</i>
19	Preparation of wheat stalk dust/polyaniline composites for removing arsenic (V) <i>Indu Khadka, Santosh Khanal, Rameshwar Adhikari</i>
20	Antimicrobial and cytotoxicity of rhizome extract of <i>Acorus calamus</i> in combination with different antimicrobial agents: A synergistic effect <i>Hemanta Khanal</i>

- 21 Determination of point of zero charge of charcoals of *Shorea robusta* and *Pinus roxburghii*
Manoj Khanal, Ajaya Bhattarai
- 22 Detection of oral cancer by native fluorescence spectroscopy using human tissue and saliva as a diagnostic medium
Pavan Kumar, Ashutosh Singh, Surendra Kanaujia, Asima Pradhan
- 23 First-principles study of adsorption of halogen molecules on graphene–MoS₂ bilayer hetero-system
Saran Lamichhane, Pravin Lage, Gyan Bahadur Khatri, Nurapati Pantha, Narayan Prasad Adhikari
- 24 Multiferroic HoCrO₃: A temperature-dependent survey
Ashish Kumar Mall, Rajeev Gupta, Ashish Garg
- 25 Thermal and electrochemical stability study of benignly synthesized N-doped graphene oxide composite
Shantilal Mehetre, Man Singh
- 26 Biodegradable polymer composites using urban carpentry wastes
Rom Nath Baral, Santosh Khanal, André Wutzler, Ralf Lach, Wolfgang Grellmann, Werner Lebek, Rameshwar Adhikari
- 27 Corrosion behavior of metallic materials used as automobile machinery by fossil fuels and biofuels
Uttam Nepal, Keshav Raj Gaire, Jagadeesh Bhattarai
- 28 Comparison of PPY and PPY–PVA composite as humidity sensors
Ravindra Kumar, B. C. Yadav
- 29 Micellization behavior of sodiumdodecyl sulphate in presence and absence of NaCl, KCl, KBr and NaBr in pure water and in methanol–water-mixed solvent media by conductometry at different temperatures
Tulasi Prasad Niraula, Sujeet Kumar Chatterjee, Ajaya Bhattarai
- 30 Preparation and characterization of ionophore-based lead (II) ion sensor
H. B. Oli, A. P. Yadav
- 31 Functionalization of magnetic nanoparticles for efficient anticancer drug binding and release processes
Shivani R. Pandya, Man Singh
- 32 Bioplastics from natural resources – Challenges and opportunities
Khim Prasad Panthi, Rameshwar Adhikari
- 33 Study of chlorine and chloride content in drinking water supply for Kathmandu valley
Manita K.C., Jyoti Giri
- 34 Study on hydrolytic degradation behaviour of PLA and PLA–silk nanocomposites
Rahul Patwa, Kartik Sharma, Shivkumar Venkatachalam, Amit Kumar, Vimal Katiyar
- 35 Transfer and location of thymidine between solvent phase and micellar phase: Studies on model system
Indu M. Paudel, Ajaya Bhattarai
- 36 Comparison of PPY and PPY-PVA Composite as Humidity Sensors
Ravindra Kumar, Utakarsh Kumar, Anamika D. Katheria, B.C. Yadav
- 37 Fabrication and characterization of completely biodegradable PBAT/chitosan blends: Morphology, thermal and biodegradation properties
S. Pokhrel, R. Lach, H. H. Le, W. Grellmann, H. J. Radosch, P. N. Yadav, R. Adhikari
- 38 Hydrolytic stability of polyurethanes tested in physiologically simulated conditions
Rafal Poreba, Magdalena Serkis, Jiří Hodan, Jana Kredatusová, Dana Kubies, Milena Spirková
- 39 Extraction of starch from non-edible Taro tuber and its performance evaluation in poly(ε-caprolactone) nanocomposites
Kiran K. Gali, Aswathy R., Purabi Bhagabati, Siddharth M. Bhasney, Melakuu Tesfaye, Vimal Katiyar
- 40 Phytochemical and biological studies of some Nepalese medicinal plants and isolation and identification of phytoconstituents from the root of *Clerodendrum serratum* (L.) moon
Keshav Ranabhat, Niranjana Parajuli
- 41 Serotyping and antibiotic susceptibility patterns of *Vibrio* and *Shigella* isolates from HIV positive children patients visiting Sukraraj Tropical and Infectious Disease Hospital, Teku
Binod Rayamajhee, Laxman Ghimire, Jyoti Acharya, Sarita Manandhar
- 42 Phytochemical and biological studies of some Nepalese medicinal plants and isolation and identification of phytoconstituents from vine of *Ampelopsis tomentosa* (B. Heyne and Roth) planch
Kamal Prasad Regmi, Niranjana Parajuli
- 43 Study of *in-vitro* interaction of sildenafil citrate with bovine serum albumin by fluorescence spectroscopy
Md. Rokonujjaman, Md. Abdus Salam, A. K. M. Nur Alam Siddiki, Md. Farhadur Rahman, Md. Zakir Sultan

44	Micellisation of cationic- and anionic-rich mixed surfactants at T = 293.15, 298.15 and 303.15 K <i>K. M. Sachin, Sameer Karpe, Ajaya Bhattarai, Man Singh</i>
45	Synthesis, characterization and antibacterial studies of oxovanadium (IV) complexes with macrocyclic ligands <i>M. K. Sahani, S. K. Sengupta, O. P. Pandey</i>
46	Extraction of essential oils from various aromatic plants sources and their analysis <i>Ram Prasad Baral, V. D. Valerierievich, Rameshwar Adhikari</i>
47	Green synthesis of silver nanoparticle using fruits extract and its antibacterial activity <i>Biswash Sapkota, Grinsun Sharma, Mahendra Adhikari, Gopal Lamichhane</i>
48	X dependence of energy bands and thermoelectricity of Ce-filled skutterudites <i>Amit Shankar, R. K. Thapa, P. K. Mandal</i>
49	Experimental vindication of multiferroicity in a half-doped manganite and its connection with Zener polaron ordering <i>Vinay Kumar Shukla, Soumik Mukhopadhyay</i>
50	Calorimetric analysis of uncompatibilized polypropylene/polystyrene blend using DSC <i>Md. Amir Sohel, Arunava Mandal, Sandip Pan, Achintya K.Saha, Asmita Sen Gupta</i>
51	A study on the dye-surfactant interaction by conductivity method <i>Netra Prasad Subedi, Ajaya Bhattarai</i>
52	High MDR and ESBL producing <i>E. coli</i> and <i>K. pneumoniae</i> from different clinical samples and optimize PCR to find its genetic diversity with change in AST pattern <i>Surya Subedi, Bidya Shrestha, Jyoti Maharjan</i>
53	Extraction of cellulose from Allo fibers and preparation of their composites with urea–formaldehyde resin <i>Sumita Subedi, Netra Lal Bhandari, Rameshwar Adhikari</i>
54	Fabrication of nanostructured carbon nanotube based thin film and its application for the detection of CO ₂ gas <i>Utkarsh Kumar, Ravindra Kumar, B.C. Yadav</i>
55	Functionalization of nanocarbons of different dimensionalities <i>Sonam Tamang, André Wutzler, Ralf Lach, Wolfgang Grellmann, Rameshwar Adhikari, Sabita Shrestha</i>
56	Catalysing effect of rhodamine B on interaction behaviour of lanthanide nitrates with dendrimer <i>Nidhi Vashistha, Man Singh</i>
57	Cetylpyridinium chloride interaction with methyl red in methanol–water-mixed solvent media <i>Shiva Kumar Yadav, Ashok Kumar Das, Ashok Kumar Yadav, Ajaya Bhattarai</i>
58	Investigations on the medicinal attributes of pyrazolo[3,4-d]pyrimidines <i>Umesh Yadava</i>
59	Tuning morphology and mechanical properties of block copolymer-modified nanostructured epoxy resin <i>S. P. Khatiwada, R. Pandit, S. Chandran C., S. Thomas, J. M. Saiter, R. Lach, W. Grellmann, G. Heinrich, R. Adhikari</i>
60	Acid-functionalized γ -Fe ₂ O ₃ : An efficient protocol towards multicomponent synthesis of imidazole derivatives <i>Manisha Bora, Pravin Adhav, Kakasaheb Mohite, Sunita Salunkhe, Vasant V. Chabukswar</i>
61	Biodegradable conducting polymer nanocomposites using multiwalled carbon nanotubes <i>K. N. Dhakal, S. Khanal, R. Lach, W. Grellmann, G. Heinrich, R. Adhikari</i>
62	Biodiesel production from the <i>Jatropha curcas</i> (L.) oil by optimized transesterification process <i>J. R. Ghimire, K. Shrestha, M. B. Gewali</i>
63	Kinetics study of photocatalytic degradation of tartaric acid in UV-Visible light at various parameters by the Cobalt Nickel doped Titania (Co _{0.05} :Ni _{0.10} :TiO ₂) <i>Azad Kumar, Gajanan Pandey</i>
64	Pyrolysis of waste low-density polyethylene into fuels and chemicals <i>Kanchan Pathak, Rabindra Prasad Dhakal</i>
65	Co-ordination chemistry: Current changes and future challenges (Specially cobalt, nickel, copper and zinc complexes of biologically active Schiff bases) <i>Kiran Singh</i>
66	Synthesis of hydroxyapatite nanoparticles and study their composite with biodegradable polymer <i>Dhanikala Thapa, Dipak Baram, Gokarna Pandey, Rameshwar Adhikari</i>

- 67 Polythiophene as ammonia sensor and effect of temperature on its sensitivity
Ashish B. Chourasia, Vasnat V Chabukswar
- 68 Study of anti-diabetic properties of *Solanum anguivi* and assessment of *Cantharanthus roseus* for its antioxidant activity
Prameela Khadka, Bimala Subba
- 69 Synthesis and characterization of magnetite nanoparticles and their nanocomposites with epoxy resin
Devendra Adhikari, Sushant Ghimire, Rameshwar Adhikari
- 70 Traditionally using medicinal plants in Kaski district, Nepal
Mahendra Adhikari, Gopal Lamichhane, Biswash Sapkota, Grinsun Sharma
- 71 Molecular environment of ternary mixtures of imidazolium-based ionic liquid with molecular solvents
Momana Afrose, Omar Ahmed, Md. Abu Bin Hasan Susan
- 72 Wound healing effect of *Calotropis procera* plant embedded with nanoparticles
S. Jayakumar, Anees Ahmed, G. M. Rajesh, M. Muthukumaran
- 73 Protic ionic liquids and their binary systems for Michael addition reaction of acetylacetone and cyclohexanone
Gulshan Ara, Md. Mominul Islam, Md. Yousuf Ali Mollah, Md. Abu Bin Hasan Susan
- 74 Synthesis and characterization of glycidyl azide polymer containing bisphenol as initiating unit
Ajay D. Kshirsagar, Dilip D. Hundiwale, Pramod P. Mahulikar
- 75 Synthesis and characterization of hydroxyapatite from bone, egg shell and fish scales and their resorcinol-formaldehyde resin nanocomposite
Arun Acharya, Chet Raj Bhatta, Kiran Bhattarai, Rajesh Pandit, Rameshwar Adhikari
- 76 Tomato quality from organic and conventional production in the selected of areas of Dhankuta and Sunsari, Nepal
Pramod Kumar Yadav, Chandradip Kumar Yadav, Ajaya Bhattarai
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