ICAVS10 DRAFT PROGRAMME

Sunday 7 July 2019

9:00AM - 1:00PM	Pre-Conference Workshops **HANDHELD AND PORTABLE/DESKTOP RAMAN AND NEAR-INFRARED (NIR) SPECTROSCOPY WORKSHOP** Hosted by Metrohm Australia / New Zealand Room: Case Room 2	
12:30PM	Registration Opens (Level 0, Owen G. Glenn Building)	
1:00PM - 5:00PM	Pre-Conference Workshops **NEW PERSPECTIVES IN 3D RAMAN IMAGING AND CORRELATIVE TECHNIQUES** Hosted by WITec Room: Case Room 2	**JASCO SOLUTION FOR FTIR AND RAMAN MEASUREMENT IN THE LABORATORY** Hosted by JASCO Room: Case Room 3
5:00PM - 7:00PM	**Welcome Function (Level 0, Owen G. Glenn Building)**	

Monday 8 July 2019

7:45AM	Registration Opens (Level 0, Owen G. Glenn Building)			
8:45AM - 9:30AM	**Zhong-Qun Tian, *Xiamen University*** **NEW PROGRESSES OF PLASMON-ENHANCED RAMAN SPECTROSCOPY: FROM FUNDAMENTAL TO APPLICATION AND MARKET**			
9:30AM - 10:15AM	**Clare Strachan, *University of Helsinki*** **PHARMACEUTICALS UNDER THE NON-LINEAR OPTICAL MICROSCOPE**			
10:15AM - 10:40AM	**Morning Tea (Level 0 Exhibition)**			
10:40AM - 11:55 PM	**Contributed Sessions**			
	Biomedical spectroscopy and diseases characterization	Linear and non-linear vibrational spectroscopy	Material science	
	RAMAN APPLICATIONS FOR CLINICAL ROUTINES - Michael Schmitt, Institute Of Physical Chemistry, Friedrich-schiller University Jena *10:40AM* **Invited Speaker*	WATER STRUCTURE STUDIED BY RAMAN HYPER-SPECTROSCOPY AND HYPER-RAMAN SPECTROSCOPY - Hiro-o Hamaguchi, National Chiao Tung University *10:40AM* **Invited Speaker*	RAMAN STUDY OF STRUCTURAL DEFORMATION OF SMB6 - In-sang Yang, Ewha Womans University *10:40AM* **Invited Speaker*	
	LIVE-CELL RAMAN IMAGING OF THE MACROPHAGE RESPONSE TO LOCAL ENVIRONMENTAL CHANGES - Alison Hobro, Osaka University *11:00AM* **Invited Speaker*	NH•••S HYDROGEN BONDING INTERACTION PERSPECTIVE - Sanjay Wategaonkar, Tata Institute of Fundamental Research *11:00AM* **Invited Speaker*	SYNERGETIC EFFECT OF HIGH PRESSURE AND HIGH TEMPERATURE ON ENHANCING CO2 ADSORPTIVE CAPACITY OF MOFS - Yining Huang, The University Of Western Ontario *11:00AM* **Invited Speaker*	
	SKIN AND BONE: THE RAMAN CONNECTION - Michel Nieuwoudt, The University of Auckland *2:10PM* **Invited Speaker*	CARBON-CARBON TRIPLE BOND AS A VIBRATIONAL MARKER IN ULTRAFAST NONLINEAR INFRARED SPECTROSCOPY - Jianping Wang, Institute of Chemistry, the Chinese Academy of Sciences *11:20AM* **Invited Speaker*	LOW-FREQUENCY VIBRATIONAL SPECTROSCOPY OF MULTILAYER GRAPHENE AND ITS VAN DER WAALS HETEROSTRUCTURES - Pingheng Tan, CAS *11:20AM* **Invited Speaker*	
	RAMAN MICROSCOPY STUDIES ON CHEMOTHERAPEUTIC DRUGS IMPACT ON ENDOTHELIAL CELLS - Katarzyna Majzner, Faculty of Chemistry, Jagiellonian University, Gronostajowa 3, Kraków, Poland *11:40AM*	VIBRATIONAL SPECTROSCOPY AND ISOTOPIC LABELING: A NOVEL TOOL TO IDENTIFY PHENOL DEGRADERS IN COMPLEX MICROBIAL COMMUNITIES - Malama Chisanga, University Of Manchester *11:40AM*	UNDERSTANDING POLYMORPHISM OF TETRAPHENYLPORPHYRIN IN A SOLUTION PROCESSED FILM USING GIXD AND PMAIRS TECHNIQUES - Kazutaka Tomita, ICR, Kyoto Univ. *11:40AM*	
11:55AM - 1:30PM	**Lunch**			
1:30PM - 2:45PM	**Contributed Sessions**			
	Biomedical spectroscopy and diseases characterization	Tip-enhanced methods	Time resolved spectroscopy and dynamics	Instrumentation Development
	FTIR SPECTROCHEMICAL IMAGING ANALYSIS OF COLLAGEN, IN POST-INFARCTION CARDIAC TISSUE AND IN NANOSCALE FIBRILS - Kathleen Gough, University Of Manitoba *1:30PM* **Invited Speaker*	TIP-ENHANCED RAMAN SPECTROSCOPY FOR STUDYING DEFECTS IN TWO-DIMENSIONAL MATERIALS - Bin Ren, Xiamen University *1:30PM* **Invited Speaker*	NUCLEAR WAVEPACKET MOTIONS OF METALLOPHILIC OLIGOMERS IN SOLUTIONS - Munetaka Iwamura, University of Totama *1:30PM* **Invited Speaker*	LOCK-IN DETECTION IN RAMAN SPECTROSCOPY WITH CHARGE-SHIFTING CCD FOR SUPPRESSION OF FAST VARYING BACKGROUNDS - Pavel Matousek, Rutherford Appleton Laboratory *1:30PM* **Invited Speaker*
	CONSEQUENCES OF RED BLOOD CELL DEGRADATION EVALUATED BY RAMAN SPECTROSCOPY - Richard Dluhy, University Of Alabama At Birmingham *1:50PM* **Invited Speaker*	STM-BASED SINGLE-MOLECULE OPTICAL SPECTROMICROSCOPY - Zhenchao Dong, University Of Science And Technology Of China *1:50PM* **Invited Speaker*	TIME-RESOLVED RESONANCE RAMAN SPECTROSCOPIC INVESTIGATIONS OF SELECTED ORGANIC REACTIVE INTERMEDIATES - David Lee Phillips, University Of Hong Kong *1:50PM* **Invited Speaker*	RAMAN MICROSCOPY WITH A MECHANICAL STREAK CAMERA - Rintaro Shimada, The University of Tokyo *1:50PM* **Invited Speaker*
	EX VIVO MOLECULAR 3D SENSING OF THE INTRACELLULAR MORPHOLOGY OF THE HUMAN EPIDERMIS USING COHERENT RAMAN SCATTERING MICROSCOPY (SRS/CARS) - Mariko Egawa, Shiseido Global Innovation Center *11:20AM* **Invited Speaker*	CHIRAL DISCRIMINATION USING CHEMICALLY MODIFIED TIP-ENHANCE RAMAN SCATTERING - Yukihiro Ozaki, School Of Science And Technology *2:10PM* **Invited Speaker*	MICROSECOND DYNAMICS OF PHOTOGENERATED CARRIERS IN A REGIOREGULAR POLY(3-HEXYLTHIOPHENE):PCBM BLEND FILM BY TIME-RESOLVED INFRARED SPECTROSCOPY - Yukio Furukawa, Waseda University *2:10PM* **Invited Speaker*	FOUR-ANGLE POLARISATION-RESOLVED TRANSMISSION FTIR MAPPING FOR MATERIALS ORIENTATION ANALYSIS - Mark Tobin, Australian Synchrotron - ANSTO *2:10PM*
	DETECTION OF PROTEOGLYCAN LOSS FROM ARTICULAR CARTILAGE USING BRILLOUIN MICROSCOPY, WITH APPLICATIONS TO OSTEOARTHRITIS - Irina Kabakova, University Of Technology Sydney *2:30PM*	VIBRATIONALLY RESOLVED IMAGING OF A SINGLE MOLECULE USING TIP-ENHANCED RESONANCE RAMAN SPECTROSCOPY - Rafael Jaculbia, Riken *2:30PM*	NUCLEAR SPIN CONVERSION OF H2 TRAPPED IN SOLID CO2 - Koichiro Yamakawa, Japan Atomic Energy Agency *2:30PM*	CORRELATIVE RAMAN MICROSCOPY, SEM AND EDX – SYNERGIES AND BEST PRACTICES - Harald Fitzek, Felmi-zfe Graz *2:25PM*

2:45PM - 3:00PM	**Afternoon Tea**			
3:00AM - 4:30PM	**Contributed Sessions**			
	Computational methods and theory	Material science	Cultural heritage	Data Extraction, interpretation and knowledge
	VIBRATIONALLY ASSISTED ENERGY AND CHARGE TRANSFER DYNAMICS - Martin Richter, Friedrich Schiller University Jena *3:00PM*	INVESTIGATION OF CELLULOSE CRYSTALLIZATION DURING BIO-COKE FORMATION USING THZ SPECTROSCOPY - Yusuke Morisawa, Kindai University *3:00PM* **Invited Speaker*	MERCHANTS AND MUSEUMS: IDENTIFYING THE SPECTROSCOPIC SIGNATURE OF THE TAXIDERMIST - Elizabeth Carter, Sydney Analytical, The University Of Sydney *3:00PM* **Invited Speaker*	MODEL-BASED BASELINE CORRECTION ALGORITHM FOR MID-IR MEASUREMENTS OF COMPLEX TISSUE-SUBSTRATE SYSTEMS - Giovanni Birarda, Elettra-Sincrotrone Trieste *3:00PM*
	DEVIATIONS FROM BEER'S LAW BASED ON THE NONADDITIVITY OF ABSORBANCE AND ABSORPTION CROSS SECTIONS - Thomas Mayerhöfer, Leibniz Institute Of Photonic Technology *3:15PM*	SURFACE SCIENCE OF 2-DIMENSIONAL CRYSTALS PROBED BY RAMAN SPECTROSCOPY - Sunmin Ryu, POSTECH *3:20PM* **Invited Speaker*		EFFICIENT DENOISING IN INFRARED (IR) SPECTROSCOPY AND IMAGING - Tomasz Wrobel, Institute Of Nuclear Physics Polish Academy Of Sciences *3:15PM*
	IMPROVEMENT OF SIGNAL ENHANCEMENT FACTOR IN VERTICAL FLOW METHOD FOR RAMAN SPECTROSCOPY - Hirotsugu Hiramatsu, National Chiao Tung University *3:30PM*	HYDRATION STRUCTURE OF BIOMATERIALS EXPLORED BY IN SITU ATR-IR SPECTROSCOPY COMBINED WITH MCR - Shigeaki Morita, Osaka Electro-communication University *3:40PM*	PROBING CONSOLIDANT PENETRATION INTO HARAKEKE FIBRES USING RAMAN MICROSCOPY AND CHEMOMETRICS - Garagoda Arachchige Piumika Samanali, Department of Chemistry, University of Otago, Dunedin, New Zealand *3:40PM*	HYPERSPECTRAL DATA PROCESSING AND INTERPRETATION FOR BULK AND MICROSCALE CHARACTERISATION OF STRATUM CORNEUM BY INFRARED SPECTROSCOPY - Krzysztof Banas, Singapore Synchtrotron Light Source *3:30PM*
	UTILISING EMERGING IR IMAGING TECHNOLOGIES TO PROVIDE RAPID HIGH-RESOLUTION MID-IR SPECTRAL HISTOPATHOLOGY - Nick Stone, University Of Exeter *3:45PM*	RAMAN MICROSPECTROSCOPY IN THE ASSESSMENT OF THE BIOCOMPATIBILITY AND FUNCTIONALITY OF THE CARBON NANOMATERIALS - Aleksandra Weselucha-Birczynska, Jagiellonian University *3:55PM*	IDENTIFICATION OF POLYMERS IN CULTURAL HERITAGE COLLECTIONS USING ATR AND REFLECTANCE FTIR SPECTROSCOPY - Petronella Nel, University Of Melbourne *3:55PM*	DEPOLYMERIZATION OF PARAFORMALDEHYDE STUDIED BY RAMAN SPECTROSCOPY AND THEORY - Robert Geitner, Utrecht University *3:55PM*
4:10PM - 6:00PM	**Poster Session 1 and Exhibit Viewing (Level 0 Exhibition)**			

Tuesday 9 July 2019

08:00AM	Registration Opens (Level 0, Owen G. Glenn Building)			
8:45AM - 9:30AM	**Geraldine Richmond, *University Of Oregon*** **Mulling over Nanoemulsions: Interfacial Molecular Structure, Assembly and Stabilization**			
9:30AM - 10:15AM	**Katsumasa Fujita, *Osaka University*** **HIGH-SPEED, HIGH-RESOLUTION RAMAN MICROSCOPY FOR MOLECULAR IMAGING OF BIOLOGICAL SAMPLES**			
10:15AM - 10:40AM	**Morning Tea**			
10:40AM - 11:55 PM	**Contributed Sessions**			
	Vibrational optical activity	Biomedical spectroscopy and diseases characterization	Linear and non-linear vibrational spectroscopy	Time resolved spectroscopy and dynamics
	RAMAN OPTICAL ACTIVITY OF THE HYDROGEN OUT-OF-PLANE VIBRATION AS A REPORTER FOR CHROMOPHORE DISTORTIONS IN A PHOTORECEPTOR PROTEIN - Masashi Unno, Saga University *10:40AM* **Invited Speaker*	PROBING DRUG PHARMACODYNAMICS BY OPTICAL AND NEUTRON-BASED VIBRATIONAL SPECTROSCOPY: INTERACTION OF CISPLATIN-LIKE ANTICANCER AGENTS WITH DNA - Maria Paula Marques, University Of Coimbra *10:40AM* **Invited Speaker*	LIPIDS AT THE AQUEOUS INTERFACES: MOLECULAR STRUCTURES AND CHEMICAL REACTIONS PROBED BY VIBRATIONAL SFG - Zhou Lu, Institute of Chemistry, Chinese Academy of Sciences *10:40AM* **Invited Speaker*	STRUCTURE AND PROPERTIES OF LIPID BILAYER MEMBRANES EXAMINED BY TIME-RESOLVED RAMAN AND FLUORESCENCE SPECTROSCOPY - Koichi Iwata, Gakushuin University *10:40AM* **Invited Speaker*
	RELATION BETWEEN SOLVATED STATES OF ALPHA-HELICAL PEPTIDES AND EXTENDED AMIDE III BANDS IN RAMAN OPTICAL ACTIVITY - Shigeki Yamamoto, Osaka University *11:00AM* **Invited Speaker*	LIGHT-INDUCED DIFFERENCE FTIR SPECTROSCOPY OF RHODOPSINS - Hideki Kandori, Nagoya Institute Of Technology *11:00AM* **Invited Speaker*	EXPLORING THE SPATIAL DEPENDENCE OF CHEMICAL DYNAMICS UNDER A VOLTAGE BIAS USING 2D IR IMAGING - Amber Krummel, Colorado State University *11:00AM* **Invited Speaker*	
	CHIRAL METASURFACE OF METAL HELICES FOR PLASMON-ENHANCED VIBRATIONAL CHIROPTICAL SPECTROSCOPIES - Thu H. H. Le, The University Of Tokyo *11:20AM*	FTIR AND IMMUNOSERS SPECTROSCOPIC SAMPLING FOR BLOOD PLASMA AND TISSUE DIAGNOSIS - Kamilla Malek, Jagiellonian University *11:20AM*	BULK VS SURFACE: MOLECULAR STRUCTURE OF N,N DIMETHYLFORMAMIDE-WATER BINARY SYSTEM - Deepak Tomar, Indian Institute Of Technology Ropar *11:20AM*	ULTRAFAST 2DIR SPECTROSCOPY IN DENSE GAS AND NEAR-CRITICAL FLUIDS: J-SCRAMBLING, ROVIBRATIONAL DYNAMICS AND THE ONSET OF LIQUID CHARACTER - Lawrence Ziegler, Boston University *11:20AM*
	ENHANCEMENT MECHANISMS OF VIBRATIONAL OPTICAL ACTIVITY - Laurence A Nafie, Department of Chemistry, Syracuse University *11:35AM*	POTENTIAL OF RAMAN SPECTROSCOPIC TECHNIQUES FOR THE IDENTIFICATION OF MICROORGANISMS IMPLEMENTED IN RESPIRATORY TRACT DISEASES - Olga Zukovskaja, Friedrich Schiller University Jena *11:35AM*	THE QUANTITATIVE ANALYSIS ON THE SURFACE PROPENSITY OF HYDRONIUM WITH PHASE-SENSITIVE SUM-FREQUENCY SPECTROSCOPY - Laetitia Dalstein, Academia Sinica, Institute Of Physics *11:35AM*	SPECTROSCOPIC APPLICATIONS OF QUANTUM CASCADE LASER FREQUENCY COMBS - Raphael Horvath, IRsweep *11:35AM*
12:00PM - 1:30PM	**Lunch (Room)**			
1:30PM - 2:45PM	**Contributed Sessions**			
	Instrumentation development	Surface spectroscopy, plasmonics, SERS & SEIRA	Tip-enhanced methods	SORS
	TIME-GATED RAMAN SPECTROSCOPY WITH SPAD ARRAY DETECTORS: PRESENT AND FUTURE - Lauri Kurki, Timegate Instruments Oy *1:30PM* **Invited Speaker*	COMPETING ROLE OF SURFACE CHEMISTRY ON NANOSTAR STABILITY AND SERS ACTIVITY - Amanda Haes, University Of Iowa *1:30PM* **Invited Speaker*	ELUCIDATION OF TIP-BROADENING EFFECT IN TIP-ENHANCED RAMAN SPECTROSCOPY (TERS): A CAUSE OF ARTIFACTS OR POTENTIAL FOR 3D TERS - Dmitry Kurouski, Texas A&m University *1:30PM* **Invited Speaker*	EXPLORING METHODOLOGIES TO PROVIDE INCLUSION LOCALISATION WITHIN TISSUE VOLUMES USING TRANSMISSION RAMAN, SORS AND SESORS. - Nick Stone, University Of Exeter *1:30PM* **Invited Speaker*
	TIP-ENHANCED RAMAN SPECTROSCOPY FOR CHARACTERIZATION OF BIOMOLECULAR STRUCTURE AND ORGANIZATION - Joanna Atkin, University Of North Carolina - Chapel Hill *1:50PM*	UNIFIED EVALUATION OF SURFACE-ENHANCED RESONANT RAMAN SCATTERING AND SURFACE-ENHANCED FLUORESCENCE UNDER STRONG COUPLING REGIME - Tamitake Itoh, AIST *1:50PM* **Invited Speaker*	SUBNANOMETER RESOLUTION STM-TERS BEYOND AMBIENT - Norihiko Hayazawa, Riken *1:50PM* **Invited Speaker*	DEVELOPMENT OF SPATIALLY OFFSET RAMAN SPECTROSCOPY TECHNIQUES FOR BONE TISSUE ENGINEERING - Ioan Notingher, University Of Nottingham *1:50PM* **Invited Speaker*
	OFF-AXIS POLARIZED RAMAN MICROSCOPY - Yuriy Pilgun, Taras Shevchenko National University Of Kyiv *2:05PM*	SURFACE-ENHANCED RAMAN SCATTERING FROM SINGLEALEXANDRE BROLO - Brolo Alexandre, University of Victoria *2:10PM* **Invited Speaker*	SPATIAL RESOLUTION OF TERS - A HOLISTIC COMPUTATIONAL APPRAOCH - Stephan Kupfer, Friedrich-Schiller-University Jena *2:10PM* **Invited Speaker*	TOWARD NONINVASIVE MEASUREMENT OF MEAT QUALITY IN LIVE ANIMALS USING DEEP TISSUE RAMAN SPECTROSCOPY - Saeideh Ostovar Pour, RMIT University *2:10PM* **Invited Speaker*
	FRONTIERS IN LASER DIRECT INFRARED (LDIR) CHEMICAL IMAGING - Darren Robey, Agilent Technologies Inc. *2:20PM*	OPERANDO MONITORING OF NITRIC OXIDE REDUCTION AT ENZYME-MODIFIED ELECTRODE BY ATR-SEIRA SPECTROSCOPY - Ichizo Yagi, Hokkaido University *2:30PM*	STOKES/ANTI-STOKES RATIOS IN TIP-ENHANCED RAMAN SPECTROSCOPY: INSIGHTS INTO PLASMON RESONANCE, NEAR-FIELD TEMPERATURE AND SPATIAL RESOLUTION - Marie Richard-lacroix, Friedrich-Schiller University Jena, Institute of Physical Chemistry *2:30PM*	AXIALLY PERPENDICULAR OFFSET (APO) SCHEME AS A VERSATILE TOOL FOR MEASUREMENT OF HOUSED SAMPLES IN VARIOUS CONTAINERS - Hoeil Chung, Hanyang University *2:30PM* **Invited Speaker*

2:45PM - 3:00PM	**Afternoon Tea**			
3:00AM - 4:10PM	**Contributed Sessions**			
	Gas spectroscopy and monitoring	Material science	Miniaturization and handheld instruments	Food security and quality
	PROBE THE KINETICS OF THE SIMPLEST CRIEGEE INTERMEDIATE BY USING IR QUANTUM CASCADE LASER SPECTROSCOPY - Jim Lin, Academia Sinica *3:00PM* **Invited Speaker*	SPECTROSCOPIC STUDY OF NANODOMAINS IN HIGH-IMPACT POLYPROPYLENE BY AFM-IR - Zhaohui Su, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences *3:00PM* **Invited Speaker*	SEEING THROUGH: ADVANCEMENTS IN RAMAN MEASUREMENTS THROUGH OPAQUE PACKAGING - KRISTEN FRANO, B&W Tek *3:00PM* **Invited Speaker*	COUNTERING THE 'FAKE NEWS' OF FOOD: THE ROLE OF CHEMOMETRICS WITH VIBRATIONAL SPECTROSCOPY TECHNIQUES. - Daniel Cozzolino, Central Queensland University *3:00PM* **Invited Speaker*
	BOTTOM-UP APPROACH TO THE MOLECULAR RECOGNITION OF ADRENALINE RECEPTOR BY ELECTROSPRAY-COLD ION TRAP IR LASER SPECTROSCOPY - Masaaki Fujii, Tokyo Institute of Technology *3:20PM* **Invited Speaker*	RAMAN SPECTROSCOPY FOR 2D MATERIALS RESEARCH - Hyeonsik Cheong, Sogang University *3:20PM* **Invited Speaker*	FUTURE DIRECTIONS OF NEAR-INFRARED SPECTROSCOPY IN FOOD, PHYTO AND BIOANALYSIS - Christian Huck, University Innsbruck *3:20PM* **Invited Speaker*	Cather Simpson, University of Auckland *3:15PM* **Invited Speaker*
	SYNCHROTRON FAR-INFRARED STUDIES OF CYANIDE ICES AND AEROSOLS LOCATED IN THE OUTER SOLAR SYSTEM. - Courtney Ennis, University Of Otago *3:40PM*	A RAMAN STUDY OF INTERPLAY BETWEEN PHONON CONFINEMENT AND FANO EFFECT IN P-TYPE SILICON NANOWIRES - Vivek Kumar, Indian Institute of Information Technology, Design & Manufacturing,Kancheepuram, Chennai, India *3:40PM*	ADVANCED DATA ACQUISITION AND ANALYSIS IN SMARTPHONE-BASED RAMAN MODULE - Roman Slipets, Technical university of Denmark *3:40PM*	POSSIBLE USES OF VIBRATIONAL SPECTROSCOPIC TECHNIQUES (FT-RAMAN AND FT-IR) TO DIFFERENTIATE TUNA OIL - Fatema Ahmmed, Department Of Chemistry, University of Otago, New Zealand *3:40PM*
	[redacted]	THREE-DIMENSIONAL POLARIZED RAMAN MICROSCOPY - Oleksii Ilchenko, Technical University Of Denmark *3:55PM*	SERS-BASED MICROFLUIDICS FOR WASH-FREE IMMUNOASSAY - Jaebum Choo, Hanyang University *3:55PM*	RAMAN SPECTROSCOPY FOR THE DIFFERENTIATION OF MUSCLES AND TISSUES IN MEAT USING CHICKEN AS A MODEL SYSTEM - Patience Shoko, Rmit University *3:55PM*
4:10PM - 6:00PM	**Poster Session 2 and Exhibit Viewing (Level 0 Exhibition)**			
6:30PM	**Student Pub Night (Ellice Road)**			

Wednesday 10 July 2019	
7:15AM	Registration Opens (Level 0, Owen G. Glenn Building)
7:45AM - 8:30AM	**Matthew Baker,** ***Unviersity Of Strathclyde*** **CLINICAL SPECTROSCOPY: TRANSLATING SPECTROSCOPIC BIOFLUID DISEASE DETECTION**
8:30AM - 9:15AM	**Dongho Kim,** ***Department of Chemistry, Yonsei University*** **ULTRAFAST STRUCTURAL DYNAMICS IN VARIOUS Π-CONJUGATED MOLECULAR SYSTEMS PROBED BY TIME-RESOLVED ELECTRONIC AND VIBRATIONAL SPECTROSCOPY**

Thursday 11 July 2019

8:00AM	Registration Opens (Level 0, Owen G. Glenn Building)			
8:45AM - 9:30AM	**Hongfei Wang, *Fudan University*** **NONLINEAR VIBRATIONAL SPECTROSCOPY FOR MOLECULAR SURFACES/ INTERFACES AND BEYOND**			
9:30AM - 10:15AM	**Marena Manley, Stellenbosch University** **NEAR-INFRARED (NIR) HYPERSPECTRAL IMAGING: EXPLOITING THE SPATIAL INFORMATION FOR ANALYSIS OF HETEROGENOUS AGRI-FOOD PRODUCTS**			
10:15AM - 10:40AM	**Morning Tea**			
10:40AM - 12:10 PM	**Contributed Sessions**			
	Material science	Biomedical spectroscopy and diseases characterization	Linear and non-linear vibrational spectroscopy	
	MAIRS AND CHEMOMETRICS: QUANTITATIVE PURSUE OF CHEMICAL REACTION IN A THIN FILM - Takeshi Hasegawa, Kyoto University *10:40AM* **Invited Speaker*	RAMAN SPECTROSCOPY FOR IN SITU DIAGNOSIS IN NEUROSURGERY - Émile Lemoine, Polytechnique Montréal *10:40AM* **Invited Speaker*	ULTRAFAST STIMULATED RAMAN SCATTERING AND NONLINEAR PHONONICS - Roberto Merlin, University Of Michigan *10:40AM* **Invited Speaker*	PROBING THE CONFORMATIONS AND INTERACTIONS OF BIOMIMETIC FOLDAMERS WITH VIBRATIONAL OPTICAL ACTIVITY - Ewan Blanch, RMIT *10:40AM* **Invited Speaker*
	WEEK HYDROGEN BONDING OF BIODEGRADABLE POLYESTER STUDIED BY TERAHERTZ SPECTROSCOPY - Harumi Sato, Kobe University *11:00AM* **Invited Speaker*	EX VIVO DETECTION OF COELIAC DISEASE: A MULTI-SPECTROSCOPIC APPROACH TO DISEASE DIAGNOSIS - Sara Miller, Department of Chemistry, University Of Otago *11:00AM* **Invited Speaker*	PHASE-RESOLVED NONLINEAR SPECTROSCOPY AT ELECTRODE/ELECTROLYTE SOLUTION INTERFACES - Satoshi Nihonyanagi, Riken *11:00AM* **Invited Speaker*	INTERFACIAL MOLECULAR STRUCTURES FROM HIGH-RESOLUTION AND HIGH-REPETITION-RATE VIBRATIONAL SUM-FREQUENCY GENERATION SPECTROSCOPY IN THE C-H, O-H STRETCHING AND THE FINGERPRINT REGION - Zsuzsanna Heiner, Humboldt Universität zu Berlin *11:00AM*
	HIGHLY SPATIALLY RESOLVED SIMULTANEOUS IR AND RAMAN SPECTRAL IMAGING OF BIOPLASTIC COMPOSITES USING OPTICAL PHOTOTHERMAL SPECTROSCOPY - Isao Noda, University of Delaware *11:20AM* **Invited Speaker*	SPECTROSCOPY GOES VIRAL: POINT-OF-CARE DETECTION OF VIRAL AND IMMUNE FACTORS DIRECTLY FROM BLOOD USING ATR-FTIR SPECTROSCOPY - Bayden Wood, Monash University *11:20AM* **Invited Speaker*	UNDERSTANDING THE IMPACT OF PH AND AQUEOUS COMPOSITION ON THE WATER STRUCTURE AT SILICA INTERFACES USING VIBRATIONAL SUM FREQUENCY GENERATION - Julianne Gibbs, University Of Alberta *11:20AM* **Invited Speaker*	MINERAL MAPPING OF A CAESIUM RICH LCT PEGMATITE: APPLICATION OF FIELD PORTABLE RAMAN SPECTROSCOPY - Sophie Perring, Portable XRF Services Pty Ltd *11:15AM*
	LATEST ADVANCES IN NANOSCALE IR SPECTROSCOPY AND IMAGING - Curtis Marcott, Light Light Solutions *11:40AM*	MULTISPECTROSCOPIC APPROACH FOR THE ANALYSIS OF ISOLATED AND INTACT RED BLOOD CELL MEMBRANES. - Katarzyna Maria Marzec, Jagiellonian Centre for Experimental Therapeutics (JCET), Jagiellonian University *11:40AM*	VIBRO-POLARITONS FOR CONTROL OF CHEMICAL REACTION KINETICS - Rakesh Arul, University Of Auckland *11:40AM*	UNIQUE CAPABILITIES OF RESONANCE RAMAN OPTICAL ACTIVITY (RROA) TO STUDY CHIRAL AMPLIFICATION - Agnieszka Kaczor, Jagiellonian University *11:30AM*
	ANALYSIS OF STRUCTURAL DYNAMICS OF UNCRYSTALIZED POLYESTER UNDER HEATING BY USING A PULSE-INDUCED DYNAMIC COMPRESSION (PDC) IR METHOD - Yuji Nishikawa, Konicaminolta, Inc. *11:55AM*	NEW INSIGHTS INTO THE RELATIONSHIP BETWEEN BREAST MICRO-CALCIFICATIONS AND BREAST DISEASE FROM COMBINING FTIR, RAMAN AND SYNCHROTRON X-RAY DIFFRACTION. - Nick Stone, University Of Exeter *11:55AM*	RAPID 12CO2 NUMBER DENSITY AND 13CO2/12CO2 ISOTOPIC DETERMINATION WITH AN OPTICAL FREQUENCY COMB - Sarah Scholten, University Of Adelaide *11:55AM*	MODELLING NEAR INFRARED SPECTRA IN TEMPERATURE INDUCED TRANSITION ZONE FROM ICE TO LIQUID: PREDICTION OF FAT CONTENT IN MEAT - Nageshvar Patel, University Of Padova *11:45AM*

12:10PM - 1:20PM	**Lunch**			
1:20PM - 2:45PM	**Contributed Sessions**			
	Surface spectroscopy, plasmonics, SERS & SEIRA Session Chair: Room:	Forensics Session Chair: Room:	Applications in life sciences Session Chair: Room:	 Session Chair: Room:
	SERS-BASED SENSOR FOR ULTRASENSITIVE DETECTION OF BIOMOLECULES - Young Mee Jung, Kangwon National University *1:20PM* **Invited Speaker*	TRACE BODY FLUID DETECTION AND IDENTIFICATION BY SERS - Lawrence Ziegler, Boston University *1:20PM* **Invited Speaker*	RELATIONSHIP BETWEEN PROTEIN PHOSPHORYLATION AND BIOACTIVITY ANALYZED BY RAMAN SPECTROSCOPY - Mika Ishigaki, Shimane University *1:20PM* **Invited Speaker*	NOVEL MAGNETO-RAMAN MEASUREMENT CAPABILITIES FOR STUDYING MAGNETIC QUANTUM MATERIALS - Amber McCreary, National Institute of Standards and Technology (NIST) *1:20PM* **Invited Speaker*
	VIBRATIONAL SPECTROSCOPY OF THE EDGES OF TWO-DIMENSIONAL NANOSTRUCTURES - Mark Waterland, Massey University *1:40PM* **Invited Speaker*	IT IS AN EMERGENCY: SPECTROSCOPY OUTSIDE THE LABORATORY - Michael Logan, Queensland Fire And Emergency Services *1:40PM* **Invited Speaker*	NEW ADVANCES IN OCEANOGRAPHY USING VIBRATIONAL SPECTROSCOPY - Philip Heraud, Monash University *1:40PM* **Invited Speaker*	RESOLUTION ASPECTS OF NEAR-FIELD RAMAN SCATTERING - Volker Deckert, Ipht *1:40PM* **Invited Speaker*
	ELECTRONIC AND VIBRATIONAL SERS SPECTROSCOPY AT ELECTROCHEMICAL INTERFACES - KATSUYOSHI IKEDA, Nagoya Institute of Technology *2:00PM*	BACTERIAL IDENTIFICATION USING DIFFERENT IR MODALITIES - Angela Flack, Université Reims Champagne-ardenne *2:00PM*	TIME-RESOLVED FTIR DIFFERENCE SPECTROSCOPY IN COMBINATION WITH QUANTUM CHEMICAL CALCULATIONS FOR THE STUDY OF PIGMENTS IN PROTEIN COMPLEXES - Gary Hastings, Georgia State University *2:00PM*	NOVEL APPROACH FOR METROLOGICAL QUANTIFICATION OF TIP-ENHANCED RAMAN SPECTROSCOPY (TERS) AMPLIFICATION - Andrea Mario Rossi, Inrim *2:00PM*
	SINGLE-MOLECULE SURFACE-ENHANCED DETECTABILITY OF PORPHYCENE DERIVATIVES – THE INFLUENCE OF TEMPERATURE AND PERIPHERAL SUBSTITUTION - Sylwester Gawinkowski, Institute Of Physical Chemistry Pas *2:15PM*	DETECTION OF HIGH EXPLOSIVE MATERIALS WITHIN FINGERPRINTS BY MEANS OF OPTICAL-PHOTOTHERMAL INFRARED SPECTROMICROSCOPY - Agnieszka Banas, Singapore Synchrotron Light Source *2:15PM*	INITIATION OF INTRACELLULAR APOPTOTIC SIGNALING IN RESPONSE TO MID-INFRARED LASER IRRADIATION - Gen Takebe, Hamamatsu Photonics K.K. *2:15PM*	NANOSCALE CHEMICAL AND ELECTRONIC MAPPING OF CARBOXYL GRAPHENE OXIDE USING TERS - Marc Chaigneau, HORIBA France *2:15PM*
	LABEL-FREE SERS IMAGING FOR MOLECULAR IMAGES - Stefania Alexandra Iakab, Universitat Rovira I Virgili *2:30PM*	COHERENT RAMAN SPECTROSCOPIC FLOW CYTOMETRY FOR LARGE-SCALE SINGLE CELL ANALYSIS - Kotaro Hiramatsu, The University of Tokyo *2:30PM*	DISENTANGLING MOLECULAR DETAILS ON METALLOENZYMES´ FUNCTION BY SURFACE ENHANCED VIBRATIONAL SPECTROELECTROCHEMISTRY - Smilja Todorovic, ITQB NOVA Universidade Nova de Lisboa *2:30PM*	SPECTROSCOPIC CHARACTERIZATION AND SERS ACTIVITY AGAINST AMINO ACIDS AND NEUROTRANSMITTERS OF ZNO NANOPARTICLES SYNTHESIZED BY ELECTROCHEMICAL AND GREEN CHEMISTRY METHODS. - Edyta Proniewicz, Agh University Of Science And Technology *2:30PM*
2:45PM - 3:10PM	**Afternoon Tea**			
3:10AM - 4:30PM	**Contributed Sessions**			
	Time resolved spectroscopy and dynamics	Planetary, astronomical, and interstellar physics and chemistry	Computational methods and theory	
	DISTORTION AND A STRONG HYDROGEN BOND IN THE RETINAL CHROMOPHORE ENABLE SODIUM ION TRANSPORT BY THE SODIUM ION PUMP KR2 - Misao Mizuno, Osaka University *3:10PM* **Invited Speaker*	HYDROGEN BONDING CAUGHT INFRA RED-HANDED: SPECTROSCOPIC EXAMINATION OF CLUSTERS - Evan Robertson, La Trobe University *3:10PM* **Invited Speaker*	VIBRATIONAL SPECTROSCOPY EMPOWERED BY THEORETICAL ANALYSIS: THE PRINCIPLES AND A FEW EXAMPLE CASES - Hajime Torii, Shizuoka University *3:10PM* **Invited Speaker*	
	LOW-FREQUENCY IMPULSIVE RAMAN INVESTIGATION OF GAS-PHASE MOLECULES AND CLUSTERS - Yasuhiro Ohshima, Tokyo Institute of Technology *3:30PM* **Invited Speaker*	SYNCHROTRON FAR INFRARED SPECTROSCOPY FROM INTERSTELLAR MOLECULES TO DNA - Donald Mcnaughton, Monash University *3:30PM* **Invited Speaker*	ADVANCED CHEMOMETRIC TOOLS FOR THE ANALYSIS OF VIBRATIONAL SPECTRA - Federico Marini, University Of Rome "la Sapienza" *3:30PM* **Invited Speaker*	
	NEAR-INFRARED RESONANCE STIMULATED RAMAN STUDY OF SHORT-LIVED TRANSIENTS IN CONJUGATED POLYMER FILMS - Tomohisa Takaya, Gakushuin University *3:50PM* **Invited Speaker*	ASTROCHEMICALLY IMPORTANT PROTONATION AND HYDROGENATION REACTIONS IN SOLID PARA-HYDROGEN - Yuan-Pern Lee, National Chiao Tung University *3:50PM* **Invited Speaker*	MOLECULAR VIBRATIONAL MODE ANALYSIS BASED ON ATOMIC TRAJECTORY OF MOLECULAR DYNAMICS SIMULATION - Shaoqing Wang, Shenyang National Laboratory for Materials Science, Institute of Metal Research, CAS *3:50PM*	EFFECTIVE POLARIZATION SUPPRESSION IN 3-COLOR TWO-BEAM BROADBAND COHERENT RAMAN MICRO-SPECTROSCOPY (3CBCRS) - Laszlo Ujj, University Of West Florida *3:40PM*
	DIRECT OBSERVATION OF ULTRAFAST STRUCTURAL DYNAMICS OF THE DICYANOAURATE TRIMER UPON PHOTO-INDUCED TIGHT AU-AU BOND FORMATION - Hikaru Kuramochi, RIKEN *4:10PM* **Invited Speaker*	SYNCHROTRON-BASED INFRARED SPECTRUM OF HNCS PRODUCED VIA HIGH VOLTAGE ELECTRIC DISCHARGE - Jennifer van Wijngaarden, University Of Manitoba *4:10PM* **Invited Speaker*	OPTIMIZATION OF OFF-AXIS POLARIZED RAMAN SCHEME FOR ORIENTATION MEASUREMENTS - Yuriy Pilgun, Taras Shevchenko National University Of Kyiv *4:05PM*	THE C-O VIBRATIONAL FREQUENCY AS AN INFORMANT ABOUT DEGREE OF PROTONATION OF AMINO ACIDS MAKING THE HEME POCKET OF HEMEPROTEINS - Solomon Stavrov, Tel Aviv University *3:55PM*
4:30PM - 6:00PM	**Poster Session 3**			
6:30PM	**Conference Dinner (Auckland Museum)**			

Friday 12 July 2019

8:00AM	Registration Opens (Level 0, Owen G. Glenn Building)		
8:45AM - 9:30AM	**Bernhard Lendl, Technische Universitat Wien** **NEW SENSING SCHEMES BASED ON QUANTUM CASCADE LASERS**		
9:30AM - 10:15AM	**Steve Holroyd, Fonterra** **THE USE OF NEAR INFRARED SPECTROSCOPY IN THE DAIRY INDUSTRY: NEW TRENDS AND APPLICATIONS**		
10:15AM - 10:40AM	**Morning Tea**		
10:40AM - 11:55 PM	**Contributed Sessions**		
	Surface spectroscopy, plasmonics, SERS & SEIRA	Biomedical spectroscopy and diseases characterization	Linear and Non-linear Vibrational Spectroscopy,
	SURFACE MOLECULAR STRUCTURES OF FLUOROALKYL ACRYLATE POLYMERS STUDIED BY HETERODYNE-DETECTED VIBRATIONAL SFG SPECTROSCOPY - Taka-aki Ishibashi, University of Tsukuba *10:40AM* **Invited Speaker*	DEPTH SENSITIVE RAMAN SPECTROSCOPY FOR SKIN WOUNDS IN RODENTS - Joshua Su Weming, Nanyang Technological University *10:40AM* **Invited Speaker*	LINEAR AND NONLINEAR VIBRATIONAL PROBES OF THE SURFACE ENVIRONMENT DURING BACTERIAL ADHESION - Dennis Hore, University Of Victoria *10:40AM* **Invited Speaker*
	STRUCTURAL AND PHYSICAL PROPERTIES OF WATER CONFINED IN NANOSPACES BY PLASMON-ENHANCED INFRARED SPECTROSCOPY - Thu H. H. Le, The University Of Tokyo *11:00AM*	OXACILIN-INDUCED CHEMICAL CHANGES IN STAPHYLOCOCCUS AUREUS: FROM THE MODE OF ACTION AND ITS CONSEQUENCES TO RAPID IR DETECTION OF RESISTANCE - Kamila Kochan, Monash University *11:00AM* **Invited Speaker*	INFRARED ELECTROABSORPTION SPECTROSCOPY OF NANOCONFINED WATER - Shinsuke Shigeto, Kwansei Gakuin University *11:00AM* **Invited Speaker*
	PLASMONIC NANOPARTICLES TUNABLE IN SIZES AND OPTICAL PROPERTIES FOR SURFACE ENHANCED RAMAN SCATTERING - Hyejin Chang, Kangwon National University *11:15AM*	TWO-DIMENSIONAL SERS ENCODING METHOD FOR ON-BEAD PEPTIDE SEQUENCING IN HIGH-THROUGHPUT BIOANALYSIS - Dae Hong Jeong, Seoul National University *11:20AM* **Invited Speaker*	DETERMINATION OF THE ABSOLUTE 3D ANGLES OF MOLECULAR ORIENTATION - Young Lee, National Institute Of Standards And Technology *11:20AM* **Invited Speaker*
	DEVELOPING SURFACE ENHANCED RAMAN SPECTROSCOPY BASED METHODS FOR DETECTING ENVIRONMENTAL POLLUTANTS IN TREATED WASTEWATER - Timothy Tze Xin Ong, Rmit University *11:30AM*	DIAGNOSIS OF SCRUB TYPHUS USING SERS-BASED LATERAL FLOW ASSAY KIT - Jaebum Choo, Hanyang University *11:40AM* **Invited Speaker*	REVEALING MAGNETIC PHENOMENA IN LAYERED 2D MATERIALS VIA RAMAN SPECTROSCOPY - Amber McCreary, National Institute Of Standards And Technology *11:40AM*
12:00PM - 1:20PM	**Lunch**		
1:20PM - 2:45PM	**Contributed Sessions**		
	Surface spectroscopy, plasmonics, SERS & SEIRA	Applications in life sciences	Pharmaceuticals: understanding, characterization and quality
	RAMAN MICROSCOPY INVESTIGATIONS OF MODEL PHOSPHOLIPID MEMBRANES: CHARACTERIZATION, SMALL-MOLECULE, PEPTIDE, AND PROTEIN INTERACTIONS - Jay Kitt, University Of Utah *1:20PM* **Invited Speaker*	MULTI-COLOR SERS CELLULAR IMAGING WITH HIGH SIGNAL-TO-BACKGROUND RATIO - Jiming Hu, Wuhan University *1:20PM* **Invited Speaker*	MANUFACTURING WITH LIGHT: FROM PICOSECONDS TO TONS - Michael George, University of Nottingham *1:20PM* **Invited Speaker*
	SERS OF LIPIDS IN MOLECULAR AND CELLULAR MODELS - Janina Kneipp, Humboldt-Universität zu Berlin *1:40PM* **Invited Speaker*	RESONANCE RAMAN GIVES A GRASP ON THE STRUCTURE AND FUNCTION OF COPROHEME DECARBOXYLASE (CHDC) FROM LISTERIA MONOCYTOGENES - Giulietta Smulevich, Università Di Firenze *1:40PM* **Invited Speaker*	REVERSE ANALYSIS OF PHARMACEUTICAL FORMULATIONS - Cushla Mcgoverin, University Of Auckland and Nycrist Pharmatech Limited *1:40PM* **Invited Speaker*
	SELECTION RULES OF SURFACE-ENHANCED RAMAN SCATTERING: THE ROLE OF THE OUT-OF-PLANE VIBRATIONS - Juan Carlos Otero, Universidad De Málaga *2:00PM*	PROBING MEMBRANE RECEPTORS IN LIVING CELLS WITH PLASMON ENHANCED RAMAN MICROSCOPY - Zachary Schultz, The Ohio State University *2:00PM*	COMPARING LOW- AND MID-FREQUENCY RAMAN SPECTROSCOPY FOR IN SITU MONITORING OF CRYSTALLISATION IN PHARMACEUTICAL SLURRIES - Jaana Koskela, University of Helsinki *2:00PM*
	RATIONAL DESIGN AND SYNTHESIS OF ANISOTROPIC PLASMONIC NANOSTRUCTURES FOR DIRECT SERS DETECTION OF CELL-FREE DNA MUTATIONS - Yuling Wang, ARC Centre for Nanoscale BioPhotonics, Department of *2:15PM*	RAMAN IMAGING OF WAX ESTER METABOLISM IN LIVING EUGLENA GRACILIS ASSISTED BY MULTIVARIATE CURVE RESOLUTION ANALYSIS - Tatsuyuki Yamamoto, Shimane University *2:15PM*	ISOTHERMAL DEHYDRATION OF CRYSTALLINE HYDRATES USING LOW-FREQUENCY RAMAN SPECTROSCOPY - Chima Roberts, University Of Otago *2:15PM*
		HIGH-THROUGHPUT MULTIMODAL MICRO-SPECTROSCOPY FOR LIVE CELL IMMUNE ACTIVATION - Nicolas Pavillon, Osaka University *2:30PM*	A CRITICAL ANALYSIS OF QUANTITATIVE MOLECULAR PROFILING OF LIPID DROPLETS IN HUH7 CELLS WITH RAMAN MICRO-SPECTROSCOPY AND MULTIVARIATE CURVE RESOLUTION - Ashok Samuel, Waseda University *11:40AM*
2:45PM - 3:10PM	**Afternoon Tea**		
3:10PM - 4:00PM	**Malgorzata Baranska, Jagiellonian University** **TOWARDS DIAGNOSTICS AND PHARMACOLOGY BASED ON RAMAN SPECTROSCOPY**		
4:00PM	**Farewell**		