

# ICAVS10 PROGRAM

**Sunday 7 July 2019**

9:00AM - 1:00PM	<b>Pre-Conference Workshops</b> <b>HANDHELD AND PORTABLE/DESKTOP RAMAN AND NEAR-INFRARED (NIR) SPECTROSCOPY WORKSHOP</b> Hosted by Metrohm Australia / New Zealand Room: Case Room 2	<b>BASIC CHEMOMETRICS WITH MATLAB</b> Room: Case Room 3
12:30PM - 6:00PM	Registration Opens (Level 0, Owen G. Glenn Building)	
1:00PM - 5:00PM	<b>Pre-Conference Workshops</b> <b>NEW PERSPECTIVES IN 3D RAMAN IMAGING AND CORRELATIVE TECHNIQUES</b> Hosted by WITec Room: Case Room 2	<b>JASCO RAMAN AND INFRA-RED IMAGING OF COMPLEX SAMPLES. WHAT IS POSSIBLE AND HOW TO DO IT</b> Hosted by JASCO Room: Case Room 3
5:00PM - 7:00PM	<b>Welcome Function (Level 0, Owen G. Glenn Building)</b>	

**Monday 8 July 2019**

7:30AM	Registration Opens (Level 0, Owen G. Glenn Building)			
8:30AM	<b>Conference Opening</b> Room: Lecture Theatre 098			
8:45AM - 9:30AM	<b>Zhong-Qun Tian, Xiamen University</b> <b>NEW PROGRESSES OF PLASMON-ENHANCED RAMAN SPECTROSCOPY: FROM FUNDAMENTAL TO APPLICATION AND MARKET</b> Session Chair: Keith Gordon Room: Lecture Theatre 098			
9:30AM - 10:15AM	<b>Clare Strachan, University of Helsinki</b> <b>PHARMACEUTICALS UNDER THE NON-LINEAR OPTICAL MICROSCOPE</b> Session Chair: Keith Gordon Room: Lecture Theatre 098			
10:15AM - 10:40AM	<b>Morning Tea (Level 0 Exhibition)</b>			
10:40AM - 11:55AM	<b>Contributed Session 1</b>			
	A) Biomedical spectroscopy and diseases characterization Session Chair: Jakob Dybas Room: Lecture Theatre 098	B) Linear and non-linear vibrational spectroscopy Session Chair: Laetitia Dalstein Room: Lecture Theatre OGGB 4	C) Material science Session Chair: Yuta Hikima Room: Case Room 2	D) Vibrational optical activity Session Chair: Shigeki Yamamoto Room: Case Room 3
	RAMAN APPLICATIONS FOR CLINICAL ROUTINES - Michael Schmitt, 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	PROBING THE CONFORMATIONS AND INTERACTIONS OF BIOMIMETIC FOLDAMERS WITH VIBRATIONAL OPTICAL ACTIVITY - Ewan Blanch, RMIT 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	COMPREHENSIVE CHARACTERIZATION OF PHARMACEUTICALS WITH EMPHASIS ON CHIRAL DRUGS & BIOLOGICS - Rina Dukor, Biotools 11:00AM *Invited Speaker
	SKIN AND BONE: THE RAMAN CONNECTION - Michel Nieuwoudt, The University of Auckland 11:20AM *Invited Speaker	EFFECTIVE POLARIZATION SUPPRESSION IN 3-COLOR TWO-BEAM BROADBAND COHERENT RAMAN MICRO-SPECTROSCOPY (3CBCRS) - Laszlo Ujj, University Of West Florida 11:20AM	LOW-FREQUENCY VIBRATIONAL SPECTROSCOPY OF MULTILAYER GRAPHENE AND ITS VAN DER WAALS HETEROSTRUCTURES - Pingheng Tan, CAS 11:20AM *Invited Speaker	RAMAN OPTICAL ACTIVITY OF CAROTENOIDS: RESONANCE SIGNAL ENHANCEMENT DUE TO THE AGGREGATION - Grzegorz Zajac, Jagiellonian University 11:20AM
RAMAN MICROSCOPY STUDIES ON CHEMOTHERAPEUTIC DRUGS IMPACT ON ENDOTHELIAL CELLS - Katarzyna Majzner, Jagiellonian University 11:40AM	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 11:35AM	UNDERSTANDING POLYMORPHISM OF TETRAPHENYLPORPHYRIN IN A SOLUTION PROCESSED FILM USING GIXD AND PMAIRS TECHNIQUES - Kazutaka Tomita, ICR, Kyoto University 11:40AM	UNIQUE CAPABILITIES OF RESONANCE RAMAN OPTICAL ACTIVITY (RROA) TO STUDY CHIRAL AMPLIFICATION - Agnieszka Kaczor, Jagiellonian University 11:35AM	
11:55AM - 1:30PM	<b>Lunch (Level 0 Exhibition)</b>			
1:30PM - 2:45PM	<b>Contributed Session 2</b>			
	A) Biomedical spectroscopy and diseases characterization Session Chair: Sara Miller Room: Lecture Theatre 098	B) Time resolved spectroscopy and dynamics Session Chair: Yasuhiro Ohshima Room: Lecture Theatre OGGB 4	C) Tip-enhanced methods Session Chair: Stephan Kupfer Room: Case Room 2	D) Instrumentation Development Session Chair: Bernhard Lendl Room: Case Room 3
	FTIR SPECTROCHEMICAL IMAGING ANALYSIS OF COLLAGEN, IN POST-INFARCTION CARDIAC TISSUE AND IN NANOSCALE FIBRILS - Kathleen Gough, University Of Manitoba 1:30PM *Invited Speaker	NUCLEAR WAVEPACKET MOTIONS OF METALLOPHILIC OLIGOMERS IN SOLUTIONS - Munetaka Iwamura, University of Totama 1:30PM *Invited Speaker	TIP-ENHANCED RAMAN SPECTROSCOPY FOR STUDYING DEFECTS IN TWO-DIMENSIONAL MATERIALS - Bin Ren, Xiamen University 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
	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 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	STM-BASED SINGLE-MOLECULE OPTICAL SPECTROMICROSCOPY - Zhenchao Dong, University Of Science And Technology Of China 1:50PM *Invited Speaker	RAMAN MICROSCOPY WITH A MECHANICAL STREAK CAMERA - Rintaro Shimada, The University of Tokyo 1:50PM *Invited Speaker
	DETECTION OF PROTEOGLYCAN LOSS FROM ARTICULAR CARTILAGE USING BRILLOUIN MICROSCOPY, WITH APPLICATIONS TO OSTEOARTHRITIS - Irina Kabakova, University Of Technology Sydney 2:10PM	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	CHIRAL DISCRIMINATION USING CHEMICALLY MODIFIED TIP-ENHANCED RAMAN SCATTERING - Yukihiro Ozaki, School Of Science And Technology 2:10PM *Invited Speaker	FOUR-ANGLE POLARISATION-RESOLVED TRANSMISSION FTIR MAPPING FOR MATERIALS ORIENTATION ANALYSIS - Mark Tobin, Australian Synchrotron - ANSTO 2:10PM
	NUCLEAR SPIN CONVERSION OF H <sub>2</sub> TRAPPED IN SOLID CO <sub>2</sub> - Koichiro Yamakawa, Japan Atomic Energy Agency 2:30PM	VIBRATIONALLY RESOLVED IMAGING OF A SINGLE MOLECULE USING TIP-ENHANCED RESONANCE RAMAN SPECTROSCOPY - Rafael Jaculbia, Riken 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 (Level 0 Exhibition)				
3:00PM - 4:10PM					Contributed Session 3				
A) Material science		B) Computational methods and theory		C) Cultural heritage		D) Data Extraction, interpretation and knowledge			
Session Chair: Takeshi Hasegawa Room: Lecture Theatre 098		Session Chair: Hajime Torii Room: OGGB4		Session Chair: Cushla McGoverin Room: Case Room 2		Session Chair: Federico Marini Room: Case Room 3			
INVESTIGATION OF CELLULOSE CRYSTALLIZATION DURING BIO-COKE FORMATION USING THZ SPECTROSCOPY - Yusuke Morisawa, Kindai University		VIBRATIONALLY ASSISTED ENERGY AND CHARGE TRANSFER DYNAMICS - Martin Richter, Friedrich Schiller University Jena		MERCHANTS AND MUSEUMS: IDENTIFYING THE SPECTROSCOPIC SIGNATURE OF THE TAXIDERMIST - Elizabeth Carter, The University Of Sydney		MODEL-BASED BASELINE CORRECTION ALGORITHM FOR MID-IR MEASUREMENTS OF COMPLEX TISSUE-SUBSTRATE SYSTEMS - Giovanni Birarda, Elettra-Sincrotrone Trieste			
3:00PM <i>*Invited Speaker</i>		3:00PM		3:00PM <i>*Invited Speaker</i>		3:00PM			
SURFACE SCIENCE OF 2-DIMENSIONAL CRYSTALS PROBED BY RAMAN SPECTROSCOPY - Sunmin Ryu, POSTECH		DEVIATIONS FROM BEER'S LAW BASED ON THE NONADDITIVITY OF ABSORBANCE AND ABSORPTION CROSS SECTIONS - Thomas Mayerhöfer, Leibniz Institute Of Photonic Technology		PROBING CONSOLIDANT PENETRATION INTO HARAKEKE FIBRES USING RAMAN MICROSCOPY AND CHEMOMETRICS - Garagoda Arachhige Piumika Samanali, University of Otago		EFFICIENT DENOISING IN INFRARED (IR) SPECTROSCOPY AND IMAGING - Tomasz Wrobel, Institute Of Nuclear Physics Polish Academy Of Sciences			
3:20PM <i>*Invited Speaker</i>		3:15PM		3:20PM		3:15PM			
HYDRATION STRUCTURE OF BIOMATERIALS EXPLORED BY IN SITU ATR-IR SPECTROSCOPY COMBINED WITH MCR - Shigeaki Morita, Osaka Electro-communication University		IMPROVEMENT OF SIGNAL ENHANCEMENT FACTOR IN VERTICAL FLOW METHOD FOR RAMAN SPECTROSCOPY - Hirotsugu Hiramatsu, National Chiao Tung University		IDENTIFICATION OF POLYMERS IN CULTURAL HERITAGE COLLECTIONS USING ATR AND REFLECTANCE FTIR SPECTROSCOPY - Petronella Nel, University Of Melbourne		HYPER SPECTRAL DATA PROCESSING AND INTERPRETATION FOR BULK AND MICROSCALE CHARACTERISATION OF STRATUM CORNEUM BY INFRARED SPECTROSCOPY - Krzysztof Banas, Singapore Synchrotron Light Source			
3:40PM		3:30PM		3:35PM		3:30PM			
RAMAN MICROSCOPY IN THE ASSESSMENT OF THE BIOCOMPATIBILITY AND FUNCTIONALITY OF THE CARBON NANOMATERIALS - Aleksandra Weselucha-Birczynska, Jagiellonian University		UTILISING EMERGING IR IMAGING TECHNOLOGIES TO PROVIDE RAPID HIGH-RESOLUTION MID-IR SPECTRAL HISTOPATHOLOGY - Nick Stone, University Of Exeter		BACTERIAL GROWTH AND STRESS: RAMAN AND RESONANCE RAMAN PERSPECTIVES - Ria Mukherjee, IISc		DEPOLYMERIZATION OF PARA FORMALDEHYDE STUDIED BY RAMAN SPECTROSCOPY AND THEORY - Robert Geitner, Utrecht University			
3:55PM		3:45PM		3:50PM		3:45PM			
4:10PM - 6:00PM					Poster Session 1 (Level 0 Exhibition)				

8:00AM	Registration Opens (Level 0, Owen G. Glenn Building)			
8:45AM - 9:30AM	<b>Geraldine Richmond, University Of Oregon</b> <b>Mulling over Nanoemulsions: Interfacial Molecular Structure, Assembly and Stabilization</b> Session Chair: Yukihiko Ozaki Room: Lecture Theatre 098			
9:30AM - 10:15AM	<b>Katsumasa Fujita, Osaka University</b> <b>HIGH-SPEED, HIGH-RESOLUTION RAMAN MICROSCOPY FOR MOLECULAR IMAGING OF BIOLOGICAL SAMPLES</b> Session Chair: Yukihiko Ozaki Room: Lecture Theatre 098			
10:15AM - 10:40AM	<b>Morning Tea (Level 0 Exhibition)</b>			
	<b>Contributed Session 4</b>			
	A) Biomedical spectroscopy and diseases characterization Session Chair: Elizabeth Carter Room: Lecture Theatre 098	B) Linear and non-linear vibrational spectroscopy/Tip-enhanced methods Session Chair: Faisal Karim Room: Lecture Theatre OGGB4	C) Vibrational optical activity Session Chair: Takafumi Shimoaka Room: Lecture Theatre OGGB 5	D) Time resolved spectroscopy and dynamics Session Chair: Cather Simpson Room: Lecture Theatre OGGB3
	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 <i>*Invited Speaker</i>	EXPLORING THE SPATIAL DEPENDENCE OF CHEMICAL DYNAMICS UNDER A VOLTAGE BIAS USING 2D IR IMAGING - Amber Krummel, Colorado State University 10:40AM <i>*Invited Speaker</i>	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 <i>*Invited Speaker</i>	STRUCTURE AND PROPERTIES OF LIPID BILAYER MEMBRANES EXAMINED BY TIME-RESOLVED RAMAN AND FLUORESCENCE SPECTROSCOPY - Koichi Iwata, Gakushuin University 10:40AM <i>*Invited Speaker</i>
10:40AM - 11:50AM	LIGHT-INDUCED DIFFERENCE FTIR SPECTROSCOPY OF RHODOPSINS - Hideki Kandori, Nagoya Institute Of Technology 11:00AM <i>*Invited Speaker</i>	BULK VS SURFACE: MOLECULAR STRUCTURE OF N,N DIMETHYLFORMAMIDE-WATER BINARY SYSTEM - Deepak Tomar, Indian Institute Of Technology Ropar 11:00AM <i>*Invited Speaker</i>	RELATION BETWEEN SOLVATED STATES OF ALPHA-HELICAL PEPTIDES AND EXTENDED AMIDE III BANDS IN RAMAN OPTICAL ACTIVITY - Shigeki Yamamoto, Osaka University 11:00AM <i>*Invited Speaker</i>	THE INFLUENCE OF A BRIDGING GROUP ON DONOR-ACCEPTOR COMMUNICATION IN TRANSITION METAL COMPLEXES - Georgina Shillito, University Of Otago 11:00AM <i>*Invited Speaker</i>
	FTIR AND IMMUNOSERS SPECTROSCOPIC SAMPLING FOR BLOOD PLASMA AND TISSUE DIAGNOSIS - Kamilla Malek, Jagiellonian University 11:20AM <i>*Invited Speaker</i>	THE QUANTITATIVE ANALYSIS ON THE SURFACE PROPENSITY OF HYDRONIUM WITH PHASE-SENSITIVE SUM-FREQUENCY SPECTROSCOPY - Laetitia Dalstein, Academia Sinica, Institute Of Physics 11:15AM <i>*Invited Speaker</i>	CHIRAL METASURFACE OF METAL HELICES FOR PLASMON-ENHANCED VIBRATIONAL CHIROPTICAL SPECTROSCOPES - Thu H. H. Le, The University Of Tokyo 11:20AM <i>*Invited Speaker</i>	ULTRAFAST 2DIR SPECTROSCOPY IN DENSE GAS AND NEAR-CRITICAL FLUIDS: J-SCRAMBLING, ROVIBRATIONAL DYNAMICS AND THE ONSET OF LIQUID CHARACTER - Lawrence Ziegler, Boston University 11:15AM <i>*Invited Speaker</i>
	POTENTIAL OF RAMAN SPECTROSCOPIC TECHNIQUES FOR THE IDENTIFICATION OF MICROORGANISMS IMPLEMENTED IN RESPIRATORY TRACT DISEASES - Olga Zukovskaja, Friedrich Schiller University Jena 11:35AM <i>*Invited Speaker</i>	TIP-ENHANCED RAMAN SPECTROSCOPY FOR CHARACTERIZATION OF BIOMOLECULAR STRUCTURE AND ORGANIZATION - Joanna Atkin, University Of North Carolina - Chapel Hill 11:30AM <i>*Invited Speaker</i>	ENHANCEMENT MECHANISMS OF VIBRATIONAL OPTICAL ACTIVITY - Laurence A Nafie, Syracuse University 11:35AM <i>*Invited Speaker</i>	SPECTROSCOPIC APPLICATIONS OF QUANTUM CASCADE LASER FREQUENCY COMBS - Raphael Horvath, IRsweep 11:30AM <i>*Invited Speaker</i>
11:50PM - 1:30PM	<b>Lunch (Level 0 Exhibition)</b>			
	<b>Contributed Session 5</b>			
	A) Surface spectroscopy, plasmonics, SERS & SEIRA Session Chair: Mark Waterland Room: Lecture Theatre 098	B) Tip-enhanced methods Session Chair: Volker Deckert Room: Lecture Theatre OGGB4	C) Instrumentation development Session Chair: Kathleen Gough Room: Lecture theatre OGGB5	D) SORS Session Chair: Pavel Matousek Room: Lecture Theatre OGGB3
	COMPETING ROLE OF SURFACE CHEMISTRY ON NANOSTAR STABILITY AND SERS ACTIVITY - Amanda Haes, University Of Iowa 1:30PM <i>*Invited Speaker</i>	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 <i>*Invited Speaker</i>	TIME-GATED RAMAN SPECTROSCOPY WITH SPAD ARRAY DETECTORS: PRESENT AND FUTURE - Lauri Kurki, Timegate Instruments Oy 1:30PM <i>*Invited Speaker</i>	EXPLORING METHODOLOGIES TO PROVIDE INCLUSION LOCALISATION WITHIN TISSUE VOLUMES USING TRANSMISSION RAMAN, SORS AND SESORS. - Nick Stone, University Of Exeter 1:30PM <i>*Invited Speaker</i>
1:30PM - 2:50PM	UNIFIED EVALUATION OF SURFACE-ENHANCED RESONANT RAMAN SCATTERING AND SURFACE-ENHANCED FLUORESCENCE UNDER STRONG COUPLING REGIME - Tamitake Itoh, AIST 1:50PM <i>*Invited Speaker</i>	SUBNANOMETER RESOLUTION STM-TERS BEYOND AMBIENT - Norihiko Hayazawa, Riken 1:50PM <i>*Invited Speaker</i>	NOVEL MAGNETO-RAMAN MEASUREMENT CAPABILITIES FOR STUDYING MAGNETIC QUANTUM MATERIALS - Amber McCreary, National Institute of Standards and Technology (NIST) 1:50PM <i>*Invited Speaker</i>	DEVELOPMENT OF SPATIALLY OFFSET RAMAN SPECTROSCOPY TECHNIQUES FOR BONE TISSUE ENGINEERING - Max Dooley, University Of Nottingham 1:50PM <i>*Invited Speaker</i>
	SURFACE-ENHANCED RAMAN SCATTERING FROM SINGLE - Alexandre Brolo, University of Victoria 2:10PM <i>*Invited Speaker</i>	SPATIAL RESOLUTION OF TERS - A HOLISTIC COMPUTATIONAL APPROACH - Stephan Kupfer, Friedrich-Schiller-University Jena 2:10PM <i>*Invited Speaker</i>	OFF-AXIS POLARIZED RAMAN MICROSCOPY - Yuriy Pilgun, Taras Shevchenko National University Of Kyiv 2:10PM <i>*Invited Speaker</i>	TOWARD NONINVASIVE MEASUREMENT OF MEAT QUALITY IN LIVE ANIMALS USING DEEP TISSUE RAMAN SPECTROSCOPY - Saeideh Ostovar Pour, RMIT University 2:10PM <i>*Invited Speaker</i>
	OPERANDO MONITORING OF NITRIC OXIDE REDUCTION AT ENZYME-MODIFIED ELECTRODE BY ATR-SEIRA SPECTROSCOPY - Ichizo Yagi, Hokkaido University 2:30PM <i>*Invited Speaker</i>	STOKES/ANTI-STOKES RATIOS IN TIP-ENHANCED RAMAN SPECTROSCOPY: INSIGHTS INTO PLASMON RESONANCE, NEAR-FIELD TEMPERATURE AND SPATIAL RESOLUTION - Marie Richard-Jacroix, Friedrich-Schiller University Jena 2:30PM <i>*Invited Speaker</i>	FRONTIERS IN LASER DIRECT INFRARED (LDIR) CHEMICAL IMAGING - Darren Robey, Agilent Technologies Inc. 2:25PM <i>*Invited Speaker</i>	AXIALLY PERPENDICULAR OFFSET (APO) SCHEME AS A VERSATILE TOOL FOR MEASUREMENT OF HOUSED SAMPLES IN VARIOUS CONTAINERS - Hoeil Chung, Hanyang University 2:30PM <i>*Invited Speaker</i>

2:50PM - 3:10PM	<b>Afternoon Tea (Level 0 Exhibition)</b>			
3:10AM - 4:25PM	<b>Contributed Session 6</b>			
	A) Gas spectroscopy and monitoring Session Chair: Jennifer van Wijngaarden Room: Lecture Theatre OGGB5	B) Material science Session Chair: Bruno da Fonseca Room: Lecture Theatre 098	C) Miniaturization and handheld instruments Session Chair: Ian Lewis Room: Lecture Theatre OGGB4	D) Food security and quality Session Chair: Saeideh Ostovar Pour Room: Lecture Theatre 092
	PROBE THE KINETICS OF THE SIMPLEST CRIEGEE INTERMEDIATE BY USING IR QUANTUM CASCADE LASER SPECTROSCOPY - Jim Lin, Academia Sinica <i>3:10PM</i> <i>*Invited Speaker</i>	SPECTROSCOPIC STUDY OF NANODOMAINS IN HIGH-IMPACT POLYPROPYLENE BY AFM-IR - Zhaohui Su, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences <i>3:10PM</i> <i>*Invited Speaker</i>	SEEING THROUGH: ADVANCEMENTS IN RAMAN MEASUREMENTS THROUGH OPAQUE PACKAGING - Kristen Frano, B&W Tek <i>3:10PM</i> <i>*Invited Speaker</i>	VIBRATIONAL SPECTROSCOPY IN THE PHOTON FACTORY - Cather Simpson, University of Auckland <i>3:10PM</i> <i>*Invited Speaker</i>
	BOTTOM-UP APPROACH TO THE MOLECULAR RECOGNITION OF ADRENALINE RECEPTOR BY ELECTROSPRAY-COLD ION TRAP IR LASER SPECTROSCOPY - Masaaki Fujii, Tokyo Institute of Technology <i>3:30PM</i> <i>*Invited Speaker</i>	RAMAN SPECTROSCOPY FOR 2D MATERIALS RESEARCH - Hyeonsik Cheong, Sogang University <i>3:30PM</i> <i>*Invited Speaker</i>	FUTURE DIRECTIONS OF NEAR-INFRARED SPECTROSCOPY IN FOOD, PHYTO AND BIOANALYSIS - Christian Huck, University Innsbruck <i>3:30PM</i> <i>*Invited Speaker</i>	POSSIBLE USES OF VIBRATIONAL SPECTROSCOPIC TECHNIQUES (FT-RAMAN AND FT-IR) TO DIFFERENTIATE TUNA OIL - Fatema Ahmmed, University of Otago <i>3:30PM</i>
	SYNCHROTRON FAR-INFRARED STUDIES OF CYANIDE ICES AND AEROSOLS LOCATED IN THE OUTER SOLAR SYSTEM. - Courtney Ennis, University Of Otago <i>3:50PM</i>	ANALYSIS OF STRUCTURAL DYNAMICS OF UNCRYSTALIZED POLYESTER UNDER HEATING BY USING A PULSE-INDUCED DYNAMIC COMPRESSION (PDC) IR METHOD - Yuji Nishikawa, Konicaminolta, Inc. <i>3:50PM</i>	SERS-BASED MICROFLUIDICS FOR WASH-FREE IMMUNOASSAY - Jaebum Choo, Hanyang University <i>3:50PM</i> <i>*Invited Speaker</i>	RAMAN SPECTROSCOPY FOR THE DIFFERENTIATION OF MUSCLES AND TISSUES IN MEAT USING CHICKEN AS A MODEL SYSTEM - Patience Shoko, Rmit University <i>3:45PM</i>
DEVELOPMENT OF HIGHLY STABLE AND FOURIER TRANSFORM LIMITED PICOSECOND TIME-RESOLVED RAMAN SPECTROMETER - Tsukasa Tokita, Gakushuin University <i>4:05PM</i>		ADVANCED DATA ACQUISITION AND ANALYSIS IN SMARTPHONE-BASED RAMAN MODULE - Oleksii Ilchenko, Technical University of Denmark <i>4:10PM</i>		
4:25PM - 6:00PM	<b>Poster Session 2 (Level 0 Exhibition)</b>			
6:30PM	<b>Student Pub Night</b> <b>Sponsored by DRS Daylight Solutions</b> Ellice Road Social Lounge 57 Albert Street, Auckland CBD			

**Wednesday 10 July 2019**

7:15AM	Registration Opens (Level 0, Owen G. Glenn Building)
7:45AM - 8:30AM	<b>Matthew Baker, <i>Unviersity Of Strathclyde</i></b> <b>CLINICAL SPECTROSCOPY: TRANSLATING SPECTROSCOPIC BIOFLUID DISEASE DETECTION</b> Session Chair: Denis Hore Room: Lecture Theatre 098
8:30AM - 9:15AM	<b>Dongho Kim, <i>Department of Chemistry, Yonsei University</i></b> <b>ULTRAFAST STRUCTURAL DYNAMICS IN VARIOUS <math>\pi</math>-CONJUGATED MOLECULAR SYSTEMS PROBED BY TIME-RESOLVED ELECTRONIC AND VIBRATIONAL SPECTROSCOPY</b> Session Chair: Denis Hore Room: Lecture Theatre 098

**Thursday 11 July 2019**

8:00AM	Registration Opens (Level 0, Owen G. Glenn Building)			
8:45AM - 9:30AM	<b>Hongfei Wang, Fudan University</b> <b>NONLINEAR VIBRATIONAL SPECTROSCOPY FOR MOLECULAR SURFACES/ INTERFACES AND BEYOND</b> Session Chair: Bin Ren Room: Lecture Theatre 098			
9:30AM - 10:15AM	<b>Marena Manley, Stellenbosch University</b> <b>NEAR-INFRARED (NIR) HYPERSPECTRAL IMAGING: EXPLOITING THE SPATIAL INFORMATION FOR ANALYSIS OF HETEROGENOUS AGRI-FOOD PRODUCTS</b> Session Chair: Bin Ren Room: Lecture Theatre 098			
10:15AM - 10:40AM	<b>Morning Tea (Level 0)</b>			
10:40AM - 12:15 PM	<b>Contributed Session 7</b>			
	A) Biomedical spectroscopy and diseases characterization Session Chair: Katarzyna Majzner Room: Lecture Theatre 098	B) Linear and non-linear vibrational spectroscopy Session Chair: Joshua Sutton Room: Lecture Theatre OGGB4	C) Tip-enhanced methods and Surface spectroscopy, plasmonics, SERS & SEIRA Session Chair: Fernanda Carli Room: Lecture Theatre OGGB5	D) Material science Session Chair: Bernardo Albuquerque Nogueira Room: Case Room 3
	RAMAN SPECTROSCOPY FOR IN SITU DIAGNOSIS IN NEUROSURGERY - Émile Lemoine, Polytechnique Montréal 10:40AM <i>*Invited Speaker</i>	ULTRAFAST STIMULATED RAMAN SCATTERING AND NONLINEAR PHONONICS - Roberto Merlin, University Of Michigan 10:40AM <i>*Invited Speaker</i>	RESOLUTION ASPECTS OF NEAR-FIELD RAMAN SCATTERING - Volker Deckert, IphT 10:40AM <i>*Invited Speaker</i>	MAIRS AND CHEMOMETRICS: QUANTITATIVE PURSUE OF CHEMICAL REACTION IN A THIN FILM - Takeshi Hasegawa, Kyoto University 10:40AM <i>*Invited Speaker</i>
	EX VIVO DETECTION OF COELIAC DISEASE: A MULTI-SPECTROSCOPIC APPROACH TO DISEASE DIAGNOSIS - Sara Miller, Department of Chemistry, University Of Otago 11:00AM <i>*Invited Speaker</i>	PHASE-RESOLVED NONLINEAR SPECTROSCOPY AT ELECTRODE/ELECTROLYTE SOLUTION INTERFACES - Satoshi Nihonyanagi, Riken 11:00AM <i>*Invited Speaker</i>	PRESSING SOLIDS DIRECTLY INTO SHEETS OF PLASMONIC NANOJUNCTIONS ENABLES SOLVENT-FREE SURFACE-ENHANCED RAMAN SPECTROSCOPY - Chunchun Li, Queen's University Belfast 11:00AM <i>*Invited Speaker</i>	WEEK HYDROGEN BONDING OF BIODEGRADABLE POLYESTER STUDIED BY TERAHERTZ SPECTROSCOPY - Harumi Sato, Kobe University 11:00AM <i>*Invited Speaker</i>
	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 <i>*Invited Speaker</i>	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 <i>*Invited Speaker</i>	NOVEL APPROACH FOR METROLOGICAL QUANTIFICATION OF TIP-ENHANCED RAMAN SPECTROSCOPY (TERS) AMPLIFICATION - Andrea Mario Rossi, Inrim 11:15AM	HIGHLY SPATIALLY RESOLVED SIMULTANEOUS IR AND RAMAN SPECTRAL IMAGING OF BIOPLASTIC COMPOSITES USING OPTICAL PHOTOTHERMAL SPECTROSCOPY - Isao Noda, University of Delaware 11:20AM <i>*Invited Speaker</i>
	MULTISPECTROSCOPIC APPROACH FOR THE ANALYSIS OF ISOLATED AND INTACT RED BLOOD CELL MEMBRANES. - Katarzyna Maria Marzec, Jagiellonian University 11:40AM	VIBRO-POLARITONS FOR CONTROL OF CHEMICAL REACTION KINETICS - Rakesh Arul, University Of Auckland 11:40AM	NANOSCALE CHEMICAL AND ELECTRONIC MAPPING OF CARBOXYL GRAPHENE OXIDE USING TERS - Marc Chaigneau, HORIBA France 11:30AM	LATEST ADVANCES IN NANOSCALE IR SPECTROSCOPY AND IMAGING - Curtis Marcott, Light Light Solutions 11:40AM
	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 <sup>12</sup> CO <sub>2</sub> NUMBER DENSITY AND <sup>13</sup> CO <sub>2</sub> / <sup>12</sup> CO <sub>2</sub> ISOTOPIC DETERMINATION WITH AN OPTICAL FREQUENCY COMB - Faisal Karim, University Of Adelaide 11:55AM	PROBING LOCAL STRAIN WITH SYNCHROTRON INFRARED NANOSPECTROSCOPY - Hans Bechtel, Advanced Light Source, Lawrence Berkeley National Lab 11:45AM	THREE-DIMENSIONAL POLARIZED RAMAN MICROSCOPY - Oleksii Ilchenko, Technical University Of Denmark 11:55AM
			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 12:00PM	

12:15PM - 1:20PM	<b>Lunch (Level 0)</b>		
12:10PM - 1:20PM	<b>International Steering Committee Meeting</b> <b>Room: Case Room 3</b>		
	<b>Contributed Session 8</b>		
	A) Surface spectroscopy, plasmonics, SERS & SEIRA Session Chair: Alexandre Brolo Room: Lecture Theatre 098	B) Forensics Session Chair: Ewelina Mistek Room: Lecture Theatre OGGB4	C) Applications in life sciences Session Chair: Zachary Schultz Room: Lecture Theatre OGGB5
	SERS-BASED SENSOR FOR ULTRASENSITIVE DETECTION OF BIOMOLECULES - Young Mee Jung, Kangwon National University  1:20PM <i>*Invited Speaker</i>	TRACE BODY FLUID DETECTION AND IDENTIFICATION BY SERS - Lawrence Ziegler, Boston University  1:20PM <i>*Invited Speaker</i>	RELATIONSHIP BETWEEN PROTEIN PHOSPHORYLATION AND BIOACTIVITY ANALYZED BY RAMAN SPECTROSCOPY - Mika Ishigaki, Shimane University  1:20PM <i>*Invited Speaker</i>
	VIBRATIONAL SPECTROSCOPY OF THE EDGES OF TWO-DIMENSIONAL NANOSTRUCTURES - Mark Waterland, Massey University  1:40PM <i>*Invited Speaker</i>	IT IS AN EMERGENCY: SPECTROSCOPY OUTSIDE THE LABORATORY - Michael Logan, Queensland Fire And Emergency Services  1:40PM <i>*Invited Speaker</i>	NEW ADVANCES IN OCEANOGRAPHY USING VIBRATIONAL SPECTROSCOPY - Philip Heraud, Monash University  1:40PM <i>*Invited Speaker</i>
1:20PM - 2:45PM	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
	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
	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



2:45PM - 3:10PM				
<b>Afternoon Tea (Level 0)</b>				
<b>Contributed Session 9</b>				
D) Biomedical spectroscopy/Applications in life sciences Session Chair: Miguela Martin Room: Lecture Theatre 098		A) Time resolved spectroscopy and dynamics Session Chair: Raphael Horvath Room: Lecture Theatre OGGB4		C) Computational methods and theory Session Chair: Martin Richter Room: Lecture Theatre OGGB5
B) Planetary, astronomical, and interstellar physics and chemistry Session Chair: Courtney Ennis Room: Case Room 2				
A PHOTONIC PROBE FOR HIGHLY LOCALIZED AND RAPID IDENTIFICATION OF ISCHEMIC TISSUE IN VIVO DURING PANCREATIC SURGERY - Hannah Holtkamp, The University of Auckland 3:10PM		DIRECT OBSERVATION OF ULTRAFAST STRUCTURAL DYNAMICS OF THE DICYANOAUATE TRIMER UPON PHOTO-INDUCED TIGHT AU-AU BOND FORMATION - Hikaru Kuramochi, RIKEN 3:10PM <i>*Invited Speaker</i>		VIBRATIONAL SPECTROSCOPY EMPOWERED BY THEORETICAL ANALYSIS: THE PRINCIPLES AND A FEW EXAMPLE CASES - Hajime Torii, Shizuoka University 3:10PM <i>*Invited Speaker</i>
HYDROGEN BONDING CAUGHT INFRA RED-HANDED: SPECTROSCOPIC EXAMINATION OF CLUSTERS - Evan Robertson, La Trobe University 3:10PM <i>*Invited Speaker</i>				
3:10PM - 4:30PM MARKERS OF INFLAMMATION: RAMAN IMAGING OF ENDOTHELIAL CELLS WITHIN FUNCTIONAL ISOLATED BLOOD VESSELS STIMULATED WITH TUMOR NECROSIS FACTOR-A - Marta Z. Pacia, Jagiellonian University 3:25PM		LOW-FREQUENCY IMPULSIVE RAMAN INVESTIGATION OF GAS-PHASE MOLECULES AND CLUSTERS - Yasuhiro Ohshima, Tokyo Institute of Technology 3:30PM <i>*Invited Speaker</i>		ADVANCED CHEMOMETRIC TOOLS FOR THE ANALYSIS OF VIBRATIONAL SPECTRA - Federico Marini, University Of Rome "la Sapienza" 3:30PM <i>*Invited Speaker</i>
SYNCHROTRON FAR INFRARED SPECTROSCOPY FROM INTERSTELLAR MOLECULES TO DNA - Donald McNaughton, Monash University 3:30PM <i>*Invited Speaker</i>				
COMBINING RAMAN SPECTROSCOPY AND DIELECTROPHORESIS FOR RAPID DETERMINATION OF BACTERIAL SUSCEPTIBILITY TO ANTIBIOTICS - Chiara Portesi, Inrim 3:40PM		NEAR-INFRARED RESONANCE STIMULATED RAMAN STUDY OF SHORT-LIVED TRANSIENTS IN CONJUGATED POLYMER FILMS - Tomohisa Takaya, Gakushuin University 3:50PM <i>*Invited Speaker</i>		VIBRATIONAL SPECTRA OF NCCN, CNCN AND CNCC : A STUDY USING THE U(4) ALGEBRAIC MODEL - Nirmal Sarkar, Karimganj College 3:50PM
ASTROCHEMICALLY IMPORTANT PROTONATION AND HYDROGENATION REACTIONS IN SOLID PARA-HYDROGEN - Yuan-Pern Lee, National Chiao Tung University 3:50PM <i>*Invited Speaker</i>				
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				OPTIMIZATION OF OFF-AXIS POLARIZED RAMAN SCHEME FOR ORIENTATION MEASUREMENTS - Yuriy Pilgun, Taras Shevchenko National University Of Kyiv 4:05PM
SYNCHROTRON-BASED INFRARED SPECTRUM OF HNCS PRODUCED VIA HIGH VOLTAGE ELECTRIC DISCHARGE - Jennifer van Wijngaarden, University Of Manitoba 4:10PM <i>*Invited Speaker</i>				
MODELLING NEAR INFRARED SPECTRA IN TEMPERATURE INDUCED TRANSITION ZONE FROM ICE TO LIQUID: PREDICTION OF FAT CONTENT IN MEAT - Nageshvar Patel, University Of Padova 4:10PM				
4:30PM - 6:00PM				
<b>Poster Session 3 (Level 0)</b>				
6:30PM				
<b>Conference Dinner Auckland Museum</b>				

8:30AM	Registration Opens (Level 0, Owen G. Glenn Building)		
9:30AM - 10:15AM	<b>Bernhard Lendl, Technische Universität Wien</b> <b>NEW SENSING SCHEMES BASED ON QUANTUM CASCADE LASERS</b> Session Chair: Malgorzata Baranska Room: Lecture Theatre 098		
10:15AM - 11:00AM	<b>Steve Holroyd, Fonterra</b> <b>THE USE OF NEAR INFRARED SPECTROSCOPY IN THE DAIRY INDUSTRY: NEW TRENDS AND APPLICATIONS</b> Session Chair: Malgorzata Baranska Room: Lecture Theatre 098		
11:00AM - 11:25AM	<b>Morning Tea (Level 0)</b> <b>Contributed Session 10</b>		
11:25AM - 12:40PM	A) Biomedical spectroscopy and diseases characterization Session Chair: Adéla Jenišťová Room: Lecture Theatre 098	B) Linear and Non-linear Vibrational Spectroscopy Session Chair: Harpreet Kaur Room: Lecture Theatre OGG84	C) Surface spectroscopy, plasmonics, SERS & SEIRA Session Chair: Yuling Wang Room: Lecture Theatre OGG85
	DEPTH SENSITIVE RAMAN SPECTROSCOPY FOR SKIN WOUNDS IN RODENTS - Joshua Su Weming, Nanyang Technological University 11:25AM <i>*Invited Speaker</i>	LINEAR AND NONLINEAR VIBRATIONAL PROBES OF THE SURFACE ENVIRONMENT DURING BACTERIAL ADHESION - Dennis Hore, University Of Victoria 11:25AM <i>*Invited Speaker</i>	SURFACE MOLECULAR STRUCTURES OF FLUOROALKYL ACRYLATE POLYMERS STUDIED BY HETERODYNE-DETECTED VIBRATIONAL SFG SPECTROSCOPY - Taka-aki Ishibashi, University of Tsukuba 11:25AM <i>*Invited Speaker</i>
	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 11:45AM <i>*Invited Speaker</i>	INFRARED ELECTROABSORPTION SPECTROSCOPY OF NANOCONFINED WATER - Shinsuke Shigeto, Kwansei Gakuin University 11:45AM <i>*Invited Speaker</i>	STRUCTURAL AND PHYSICAL PROPERTIES OF WATER CONFINED IN NANOSPACES BY PLASMON-ENHANCED INFRARED SPECTROSCOPY - Thu H. H. Le, The University Of Tokyo 11:45AM
	TWO-DIMENSIONAL SERS ENCODING METHOD FOR ON-BEAD PEPTIDE SEQUENCING IN HIGH-THROUGHPUT BIOANALYSIS - Dae Hong Jeong, Seoul National University 12:05PM <i>*Invited Speaker</i>	DETERMINATION OF THE ABSOLUTE 3D ANGLES OF MOLECULAR ORIENTATION - Young Lee, National Institute Of Standards And Technology 12:05PM <i>*Invited Speaker</i>	PLASMONIC NANOPARTICLES TUNABLE IN SIZES AND OPTICAL PROPERTIES FOR SURFACE ENHANCED RAMAN SCATTERING - Hyejin Chang, Kangwon National University 12:00PM
	DIAGNOSIS OF SCRUB TYPHUS USING SERS-BASED LATERAL FLOW ASSAY KIT - Jaebum Choo, Hanyang University 12:25PM	REVEALING MAGNETIC PHENOMENA IN LAYERED 2D MATERIALS VIA RAMAN SPECTROSCOPY - Amber McCreary, National Institute Of Standards And Technology 12:20PM	CORRELATING CHARGE-TRANSFER TRANSITIONS WITH THE CATALYTIC ACTIVITY OF BI- AND TRIMETALLIC NANOPARTICLES - Douglas Santos Lopes, University Of São Paulo 12:15PM

12:40PM - 2:00PM	<b>Lunch (Level 0)</b>		
2:00PM - 3:25PM	<b>Contributed Sessions 11</b>		
	A) Applications in life sciences Session Chair: Michel Nieuwoudt Room: Lecture Theatre 098	B) Pharmaceuticals: understanding, characterization and quality Session Chair: Kārlis Bērziņš Room: Lecture Theatre OGGB4	C) Surface spectroscopy, plasmonics, SERS & SEIRA Session Chair: Kamilla Malek Room: Lecture Theatre OGGB5
	MULTI-COLOR SERS CELLULAR IMAGING WITH HIGH SIGNAL-TO-BACKGROUND RATIO - Jiming Hu, Wuhan University 2:00PM <i>*Invited Speaker</i>	REVERSE ANALYSIS OF PHARMACEUTICAL FORMULATIONS - Cushla McGoverin, The University Of Auckland and Nycrist Pharmatech Limited 2:00PM <i>*Invited Speaker</i>	RAMAN MICROSCOPY INVESTIGATIONS OF MODEL PHOSPHOLIPID MEMBRANES: CHARACTERIZATION, SMALL-MOLECULE, PEPTIDE, AND PROTEIN INTERACTIONS - Jay Kitt, University Of Utah 2:00PM <i>*Invited Speaker</i>
	RESONANCE RAMAN GIVES A GRASP ON THE STRUCTURE AND FUNCTION OF COPROHEME DECARBOXYLASE (CHDC) FROM LISTERIA MONOCYTOGENES - Giulietta Smulevich, Università Di Firenze 2:20PM <i>*Invited Speaker</i>	COMPARING LOW- AND MID-FREQUENCY RAMAN SPECTROSCOPY FOR IN SITU MONITORING OF CRYSTALLISATION IN PHARMACEUTICAL SLURRIES - Jaana Koskela, University of Helsinki 2:20PM <i>*Invited Speaker</i>	SERS OF LIPIDS IN MOLECULAR AND CELLULAR MODELS - Janina Kneipp, Humboldt-Universität zu Berlin 2:20PM <i>*Invited Speaker</i>
	PROBING MEMBRANE RECEPTORS IN LIVING CELLS WITH PLASMON ENHANCED RAMAN MICROSCOPY - Zachary Schultz, The Ohio State University 2:40PM	ISOTHERMAL DEHYDRATION OF CRYSTALLINE HYDRATES USING LOW-FREQUENCY RAMAN SPECTROSCOPY - Chima Roberts, University Of Otago 2:35PM	SELECTION RULES OF SURFACE-ENHANCED RAMAN SCATTERING: THE ROLE OF THE OUT-OF-PLANE VIBRATIONS - Juan Carlos Otero, Universidad De Málaga 2:40PM
	RAMAN IMAGING OF WAX ESTER METABOLISM IN LIVING EUGLENA GRACILIS ASSISTED BY MULTIVARIATE CURVE RESOLUTION ANALYSIS - Tatsuyuki Yamamoto, Shimane University 2:55PM	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 2:50PM	RATIONAL DESIGN AND SYNTHESIS OF ANISOTROPIC PLASMONIC NANOSTRUCTURES FOR DIRECT SERS DETECTION OF CELL-FREE DNA MUTATIONS - Yuling Wang, Macquarie University 2:55PM
HIGH-THROUGHPUT MULTIMODAL MICRO-SPECTROSCOPY FOR LIVE CELL IMMUNE ACTIVATION - Nicolas Pavillon, Osaka University 3:10PM	DEVELOPING SURFACE ENHANCED RAMAN SPECTROSCOPY BASED METHODS FOR DETECTING ENVIRONMENTAL POLLUTANTS IN TREATED WASTEWATER - Timothy Tze Xin Ong, RMIT University 3:10PM	FAST AND EFFICIENT DEPOSITION OF ANALYTE IN THE ELECTRIC FIELD FOR IMPROVEMENT OF SURFACE ENHANCED RAMAN SPECTROSCOPY - Łukasz Richter, Institute of Physical Chemistry of the Polish Academy of Sciences 3:10PM	
3:25PM - 3:50PM	<b>Afternoon Tea (Level 0)</b>		
3:50PM - 4:35PM	<b>Malgorzata Baranska, Jagiellonian University</b> <b>TOWARDS DIAGNOSTICS AND PHARMACOLOGY BASED ON RAMAN SPECTROSCOPY</b> Session Chair: Ian Lewis Room: Lecture Theatre 098		
4:35PM	<b>Farewell</b> Room: Lecture Theatre 098		