

Dedicated in Honor of Nobel Laureate in Chemistry, Prof. Aaron Ciechanover



Dr. Aaron
Ciechanover

2025 SIPS

17-20 November 2025, Dusit Thani Mactan Resort, Cebu, Philippines

Covering Sustainability Pillars :

- ① Science, Technology & Industry
- ② Governance & Management
- ③ Education & Civil Society

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PROGRAM



Featuring Many Nobel Laureates:



Dan Shechtman
2011 - Chemistry



Harvey J. Alter
2020 - Medicine



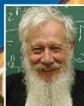
Gregg L. Semenza
2019 - Medicine



Joachim Frank
2017 - Chemistry



Konstantin Novoselov
2010 - Physics



Robert J. Aumann
2005 - Economics



Aaron Ciechanover
2004 - Chemistry



Rudy A. Marcus
1992 - Chemistry

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Organizer Logo



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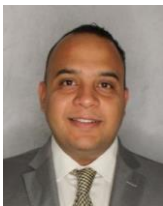
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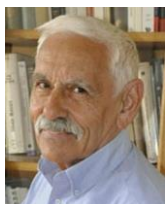
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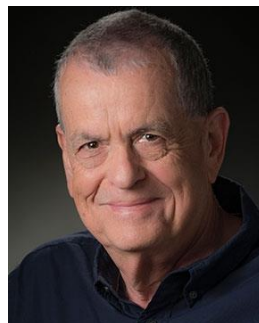
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Contents

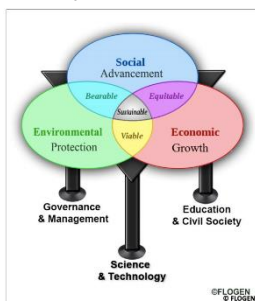
Organizer Logo	2
Leadership Committee	3
Symposia Committees	3
Welcome Message.....	19
2025 Stars.....	21
Calendar of Events	22
Summit Plenary Schedule.....	24
Tuesday Schedule	28
Wednesday Schedule.....	30
Thursday Schedule.....	32
Meeting Rooms Diagram.....	34
Map of the Hotel.....	36
International Committee.....	37
Sponsor List.....	41
Social Events	42
Summit Plenary	43
Scientific Program	49
Oral Presentations	49
Tuesday	49
Wednesday	72
Thursday	96
Posters.....	117
Technical Program Authors Index	131
Sponsors Section	147
Government/Public Organizations	147
Corporations	147
Professional Societies.....	149
Academic Institutions.....	149
Media.....	149
Travel Companies	149

Welcome Message

Welcome to Sustainability through Science and Technology / Sustainable Industrial Processing Summit (SIPS 2025), a yearly event **since 2003** that is deeply science-focused and industrial engineering-oriented, organized by the **not-for-profit corporation FLOGEN Stars Outreach** (www.flogen.org) and dedicated to achieving sustainability through science and technology.



The summit is based on the FLOGEN Sustainability Framework as described by Dr. Florian Kongoli in his opening Plenary Lecture at the **United Nations Meetings in Geneva** in February 2022



(<https://www.flogen.org/?p=33&an=2022&m=2>). It covers 3 sustainability pillars: (1) Science, Technology & Industry, (2) Governance & Management, and (3) Education & Civil Society as described in left side picture and in its corresponding publication: https://flogen.org/pdf/sips16_524FS.pdf.

SIPS incorporates summit plenary lectures from well-known speakers that address the link between scientific and engineering domains in the pursuit of sustainable development, as well as specific science and engineering symposia that feature scientific and technical presentations with the same goals in mind. SIPS Publications over the years are indexed in Google Scholar, where we have more than 6200 records (<https://rb.gy/de0dyk>) and Google Scholar Citation Indexes to our publications are: h-index=41 and i10-index=204 (<https://rb.gy/zc2qri>)

The summit simultaneously incorporates numerous International Symposia covering the fields of: oxidative stress; medical innovations; green chemistry and polymers; physical chemistry; solid state chemistry; solution chemistry; electrochemistry; molten salt and ionic liquids; advanced materials; advanced manufacturing; advanced technologies; iron and steel making; aluminum; batteries; bio-extraction; cement; coal; coatings; composites; ceramics; ecosystems; education; energy production; environment; ferro-alloys; mathematics; metallic systems; metals and alloys; minerals; mining; multiscale materials; nanomaterials; non-ferrous smelting and hydro/electrochemical processing; quasi-crystals; rare earth and platinum group metals; recycling; rotary kiln operations; glass; pharmaceutical sciences; endourology; and agroforestry. The topics within each symposium span across scientific, technological, environmental, health, legal, management, financial, policy, taxation, social, and pedagogical issues.

We wish you a successful meeting, and please enjoy our special VIP lectures from our Nobel Prize winners.

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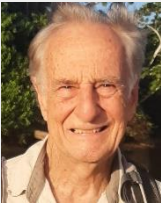
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Hon. Louise **Otis**



Mr. Charles **Tang**



Prof. Marcel **Tanner**

Calendar of Events

Mon. 17 Nov. 2025	13:00-17:00	SUMMIT REGISTRATION								
	19:00-23:00	WELCOMING INFORMAL DINNER & ENTERTAINMENT - Boardwalk (Outdoor)								
	Room	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9
		Dusit 1	Dusit 2	Dusit 3	Sampaguita	Orchid	Jasmin	Lotus	Benjarong-Phuket	Benjarong Main Rest
	Level	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	2nd Floor	2nd Floor
Tue. 18 Nov. 2025	08:00-12:00	SUMMIT PLENARY - Dusit Ballroom								
	12:00-13:00	LUNCH - Tradewinds Café								
	13:00-14:20	Composite 1	Oxidative 1	Mathematics 1	Polymers 1	Geochemistry 1	AdvancedMaterials 1	Laws 1	Economy 1	Pharmaceutical 1
	14:20-14:25	POSTERS - Ballroom Foyer								
	14:25-15:45	Composite 2	Oxidative 2	Mathematics 2	Polymers 2	Geochemistry 2	AdvancedMaterials 2	Laws 2	Economy 2	Pharmaceutical 2
	15:45-16:05	COFFEE BREAK/POSTERS - Ballroom Foyer								
	16:05-17:25	Composite 3	Oxidative 3	Mathematics 3	Polymers 3	Geochemistry 3	AdvancedMaterials 3	Laws 3	ROUND TABLE	Medicine 1
	17:25-19:00	POSTERS - Ballroom Foyer								
	19:00-23:00	THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)								
Wed. 19 Nov. 2025	08:00-12:00	SUMMIT PLENARY - Dusit Ballroom								
	12:00-13:00	LUNCH - Tradewinds Café								
	13:00-14:20	Composite 4	Oxidative 4	Mathematics 4	Polymers 4	Mineral 1	AdvancedMaterials 4	Iron 1	Molten 1	Biotechnology 1
	14:20-14:25	POSTERS - Ballroom Foyer								
	14:25-15:45	Composite 5	Oxidative 5	Mathematics 5	Polymers 5	Mineral 2	AdvancedMaterials 5	Iron 2	Energy 1	Medicine 2
	15:45-16:05	COFFEE BREAK/POSTERS - Ballroom Foyer								
	16:05-17:25	Composite 6	Oxidative 6	ModellingMaterials 1	Polymers 6	Mining 1	Manufacturing 1	Nonferrous 1	Energy 2	Nanotechnology 1

Thu. 20 Nov. 2025	17:25-19:00	POSTERS - Ballroom Foyer								
	19:00-23:00	GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom								
	08:00-12:00	SUMMIT PLENARY - Dusit Ballroom								
	12:00-13:00	LUNCH - Tradewinds Café								
	13:00-14:20	Composite 7	Oxidative 7	Multiscale 1	Polymers 7	Geomechanics 1	Biomaterials 1	Carbon 1	Energy 3	SolidStateChemistry 1
	14:20-14:25	POSTERS - Ballroom Foyer								
	14:25-15:45	Composite 8	Oxidative 8	Multiscale 2	Polymers 8	Mathematics 6	AdvancedMaterials 6	Battery 1	Energy 4	SolidStateChemistry 2
	15:45-16:05	COFFEE BREAK/POSTERS - Ballroom Foyer								
	16:05-17:25	Agroforestry 1	ROUND TABLE	Mathematics 7	Physical 1	Modelling 1	AdvancedMaterials 7	Biochar 1	Energy 5	Corrosion 1
	17:25-19:00	POSTERS - Ballroom Foyer								
	19:00-23:00	FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL								

Summit Plenary Schedule

		Room 1
		Dusit Ballroom - Summit Plenary
		Ground Floor
Tue. 18 Nov. 2025	08:00	382 FLOGEN SUSTAINABILITY FRAMEWORK AND MODERN MEDICINE - PART 1 F. Kongoli FLOGEN Star OUTREACH, Montreal, Canada OS
	08:10	363 UBIQUITIN PROTEOLYTIC SYSTEM - FROM BASIC MECHANISMS THRU HUMAN DISEASES AND ON TO DRUG DEVELOPMENT A. Ciechanover Technion-Israel Institute of Technology, Haifa, Israel OS-G
	08:40	258 FIELDS OF DREAM; REDUCTION OF OXIDATIVE STRESS H. Inufusa Gifu University, Gifu, Japan OS-G
	09:10	375 A UNIFIED THEORY OF NEURODEGENERATIVE DISEASE ROOTED IN AXON-SPECIFIC DEAMIDATION D. Joseph Gifu University, Gifu, Japan; FLOGEN Technologies Inc, Montreal, Canada OS-G
	09:40	COFFEE BREAK/POSTERS - Ballroom Foyer
	10:00	391 PLAGUES, VIRUSES, VACCINES AND ANTI-VAXERS: WHICH WILL BE THE VICTOR? H. J. Alter National Institutes of Health, Bethesda, United States OS
	10:30	374 BEYOND ORGAN-SPECIFIC ONCOLOGY: A UNIFIED THERAPEUTIC THEORY FOR TREATMENTS OF CANCER VIA MASTER REGULATORS OF THE UNIVERSAL APOPTOSIS NETWORK D. Joseph Gifu University, Gifu, Japan; FLOGEN Technologies Inc, Montreal, Canada; FLOGEN Technologies, Mont-Royal, Canada OS-G
	11:00	388 CHEMISTRY DEPARTMENT CLOSURES AND PRESIDENT TRUMP'S ACTIONS TOWARD ACADEMIA PROMPT EXAMINING U.S. DEGREE ATTAINMENT CHARACTERISTICS D. Nelson University of Oklahoma, Oklahoma, United States OS

	11:30	365 INCENTIVES FOR SUSTAINING A GREEN WORLD R. Aumann Hebrew University of Jerusalem, Jerusalem, Israel OS-G
	12:00	LUNCH - Tradewinds Café
Wed. 19 Nov. 2025	08:00	383 FLOGEN SUSTAINABILITY FRAMEWORK AND MODERN MEDICINE - PART 2 F. Kongoli FLOGEN Star OUTREACH, Montreal, Canada OS
	08:10	390 THEORY GUIDED BY EXPERIMENT AND BY CONNECTING THE DOTS R. Marcus California Institute of Technology, California, United States OS
	08:40	366 WHY SHOULD WE TEACH SCIENCE IN KINDERGARTENS AND TECHNOLOGICAL ENTREPRENEURSHIP IN TECHNICAL UNIVERSITIES D. Shechtman Technion, Haifa, Israel OS-G
	09:10	398 KGHM SUCCESSIONS IN THE ENVIRONMENTAL PROTECTIONS, ECONOMIC GROWTH AND SOCIAL DEVELOPMENT THROUGH SOUND GOVERNANCE AND MANAGEMENT, SCIENCE AND TECHNOLOGY AND EDUCATION A. Szydio KGHM, Lubin, Poland OS-G
	09:40	COFFEE BREAK/POSTERS - Ballroom Foyer
	10:00	364 MATERIALS FOR THE FUTURE K. Novoselov National University, Singapore OS-G
	10:30	396 MINERAL AND METAL PROCESSING ACTIVITIES AT NATIONAL CENTER FOR INTEGRATED PROCESSING OF MINERAL RAW MATERIALS OF KAZAKHSTAN IN THE VIEW OF SUSTAINABLE DEVELOPMENT D. Aitkulov National Center for Integrated Processing of Mineral Raw Materials, Almaty, Kazakhstan OS-G
	11:00	401 TRADE, COMMERCE AND ECONOMY IN THE ERA OF SUSTAINABLE DEVELOPMENT C. Tang President of the Chamber of Commerce and Industry Brazil-China and Paraguay-China, Rio de Janeiro, Brazil OS-G

	11:30	394 AGEING AND NEURODEGENERATIVE DISEASES: MECHANISMS AND INTERVENTIONS N. Tavernarakis Chair, EIT Governing Board (European Institute of Innovation & Technology), Heraklion, Greece OS-G
	12:00	LUNCH - Tradewinds Café
Thu. 20 Nov. 2025	08:00	384 FLOGEN SUSTAINABILITY FRAMEWORK AND MODERN MEDICINE - PART 3 F. Kongoli FLOGEN Star OUTREACH, Montreal, Canada OS
	08:10	329 CORPUS CALLOSUM AT WORK: MUTUAL INSPIRATION OF SCIENCE AND THE ARTS. J. Frank Columbia University, New York, United States OS-G
	08:40	395 LESSONS LEARNED IN 25 YEARS OF MEDIATION! L. Otis NATO and OECD, Montreal, Canada OS-G
	09:10	403 COMPOSITE AND CERAMIC ACHIEVEMENTS AND FUTURE CHALLENGES IN THE ERA OF SUSTAINABLE DEVELOPMENT M. Meyers University of California San Diego, La Jolla, United States OS-G
	09:40	COFFEE BREAK/POSTERS - Ballroom Foyer
	10:00	397 ADVANCED MATERIALS SUCCESSES AND CHALLENGES IN THE ERA OF SUSTAINABLE DEVELOPMENT F. Marquis United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States OS-G
	10:30	400 POLYMERS' SUCCESS STORIES AND FUTURE CHALLENGES IN THE ERA OF SUSTAINABLE DEVELOPMENT K. Matyjaszewski Carnegie Mellon University, Pittsburgh, United States OS-G
	11:00	399 SUCCESSES AND CHALLENGES ON GEOCHEMISTRY IN THE ERA OF SUSTAINABLE DEVELOPMENT B. Dutrow Louisiana State University, Baton Rouge, United States OS-G

	11:30	402 MATHEMATICS APPLICATION IN THE ERA OF SUSTAINABLE DEVELOPMENT L. Kauffman University of Illinois at Chicago, Chicago, United States OS-G
	12:00	LUNCH - Tradewinds Café

Tuesday Schedule

Symposium		Composite (Meyers)	Oxidative (Inufusa)	Mathematics (Kauffman)	Polymers (Matyjaszewski)	Geochemistry (Dutrow)	AdvancedMaterials	Laws (Otis)	Economy (Tang)	Pharmaceutical (Tanner)
										Medicine
		Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9
		Dusit 1	Dusit 2	Dusit 3	Sampaguita	Orchid	Jasmin	Lotus	Benjarong-Phuket	Benjarong Main Rest
		Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	2nd Floor	2nd Floor
Tue. 18 Nov. 2025	08:00	SUMMIT PLENARY - Dusit Ballroom								
	12:00	LUNCH - Tradewinds Café								
	13:00	309 M. Meyers OS-P	393 H. Inufusa OS-P	314 L. Kauffman OS-P	332 K. Matyjaszewski OS-P	177 B. Dutrow OS-P	257 F. Marquis OS-P	226 S. Murakami OS-P	372 C. Tang OS-P	30 G. Kimura OS-P
	13:20	59 T. Jacintho Lopes OS	104 S. Hirano OS-P	312 L. Kauffman OS		236 N. Ross OS-P	52 C. Vilela OS-K	220 M. McNeil OL-P	285 J. Chenu OS-K	306 M. Bultmann OS-P
	13:40	157 M. Meyers OS	379 D. Joseph OS-K		247 K. Yamagishi OS-K	271 G. Artioli OS	124 C. Scherr OS-K	294 I. Freckelton OL-P	340 T. Mandelburger OS	362 R. Santilli OL-K
	14:00	40 B. Zanini Marchi OS	256 H. Inufusa OS-K	339 P. Rowlands OS-P	98 T. Han OS	350 B. Tsikouras OS	146 T. Prikhna OS-P	39 K. Parcharidis OL	243 S. Maya OS-K	323 A. Friedler OS-K
	14:20	POSTERS - Ballroom Foyer								
	14:25	86 H. Lopera OS-K	151 K. Fukui OS-P	319 L. Kauffman OS	99 J. Yan OS	351 B. Tsikouras OS	129 D. Scheiblehner OS-K	286 I. Freckelton OL-K	186 N. Dytianquin OL-K	307 M. Bultmann OS
	14:45	Round Table	380 D. Joseph OS-K		143 Y. Qiu OS	81 M. Martin OS-P	165 M. Pokusova OS-K	246 R. Kariyawasam OL	346 N. Dytianquin OL-I	308 M. Bultmann OS
	15:05	48 B. Zanini Marchi OS	225 K. Fukui OS-K	320 L. Kauffman OS	181 A. Amarasekara OS	169 D. Henry OS	97 T. Prikhna OS-K	368 M. Stefanaki OL	342 R. Ferracin OL-I	297 H. Leuenberger OL-P
	15:25	37 P. Poubel Mendonça Da Silveira OS	125 O. Pechanova OS-P		300 T. Suga OS	275 C. Foster OS	232 J. Yang OS	149 C. Theron OS	347 N. Konadu OS	6 A. Yu OS
	15:45	COFFEE BREAK/POSTERS - Ballroom Foyer								
	16:05	23 D. Sharma OL-K	131 F. Yang OS-P	360 R. Santilli OL-P	310 K. Tanaka OS	154 W. Wang OS	317 A. Henni OS-K	219 A. Chen OS	Round Table	72 H. Sun OS-I

	16:25	62 T. Jacintho Lopes OS	159 Y. Sato OS-K	361 R. Santilli OL-K	114 M. Jimenez OS-K	73 M. Householder OS-I	327 J. Winiarski OS	121 R. Haemer OS	Round Table	288 P. Kervalishvili OS
	16:45	70 L. Madeira Coelho OS	148 K. Okano OS-P	355 A. Muktibodh OS-P	118 F. Samyn OS	333 S. Dietrich OL	163 K. Swierczek OS-K	405 N. Colmán Gaona OS	Round Table	182 T. Aldelaimi OS
	17:05	49 C. De Paula Dias OS	132 Y. Harakawa OS-I	367 G. Ord OL	299 X. Liu OS	316 C. Wang OS	338 T. Prikhna OS-K	Round Table	Round Table	277 A. Filonov OS
	19:00	THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)								

Wednesday Schedule

Symposium		Composite (Meyers)	Oxidative (Inufusa)	Mathematics (Kauffman)	Polymers (Matyjaszewski)	Mineral	AdvancedMaterials	Iron	Molten	Biotechnology
				ModellingMaterials		Mining	Manufacturing	Nonferrous	Energy	Medicine
		Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9
		Dusit 1	Dusit 2	Dusit 3	Sampaguita	Orchid	Jasmin	Lotus	Benjarong-Phuket	Benjarong Main Rest
		Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	2nd Floor	2nd Floor
Wed. 19 Nov. 2025	08:00	SUMMIT PLENARY - Dusit Ballroom								
	12:00	LUNCH - Tradewinds Café								
	13:00	237 H. Quan OS-K	160 Y. Sugiyama OS-P	321 L. Kauffman OS	259 S. Lewis OS-K	241 A. Brodt OS-K	284 F. Kapsalamova OS	229 T. Usui OS-P	318 A. Henni OS-I	Round Table
	13:20	61 T. Jacintho Lopes OS	152 K. Omoya OS-P		370 R. Advincula OS	223 E. Magdaluyo OS	381 T. Prikhna OS-I	293 T. Usui OS-K	133 Y. Chen OS	95 D. Caro OS-K
	13:40	46 B. Zanini Marchi OS	386 D. Joseph OS-I	322 L. Kauffman OS		231 E. Magdaluyo OS	22 S. Thomas OS-P	90 V. Tsepelev OS-K	139 Y. Li OS	96 M. Sharon OS-K
	14:00	42 C. De Paula Dias OS	158 Y. Sato OS-I		371 B. Tang OL	156 I. Diniz OS	239 T. Prikhna OS-I	77 D. Patil OS	25 J. Milewski OS-K	170 J. Kaput OS
	14:20	POSTERS - Ballroom Foyer								
	14:25	Round Table	176 E. Trushina OS-P	111 E. Trell OL-P	123 L. Luo OL	209 J. Pascual OS	392 A. Qurashi OS-P	9 A. Dmitriev OL-P	276 A. Ayoub OS	291 H. Ling OS
	14:45	50 C. De Paula Dias OS-K	161 Y. Sugiyama OS-K	92 B. Apanasov OS-K	80 C. Boyer OS	212 F. Souza Assis OS	85 T. Prikhna OS-I	28 A. Dmitriev OL	358 D. Jakóbczak OS-I	222 F. Souza Assis OS
	15:05	35 L. Madeira Coelho OS	325 M. Watanabe OS-P	369 S. Woo OL	334 M. Urban OS-K	120 N. Dushyantha OS-K	93 J. Wang OS-K	76 D. Patil OS	188 A. Esmaeili OS-K	Round Table
	15:25	38 P. Poubel Mendonça Da Silveira OS	230 Y. Sugiyama OS-I	349 C. Schiller OL	88 X. Pan OS	153 I. Diniz OS	119 T. Prikhna OS-I	253 L. Leite OS	189 A. Esmaeili OS-I	Round Table
	15:45	COFFEE BREAK/POSTERS - Ballroom Foyer								
	16:05	Round Table	289 R. Reiter OS-P	324 L. Rakotomanana OS-K	94 Y. Tang OS	166 F. Souza Assis OS	287 D. Ramimoghadam OS-K	33 S. Steinlechner OS-K	190 A. Esmaeili OS	233 Y. Chang OS-I

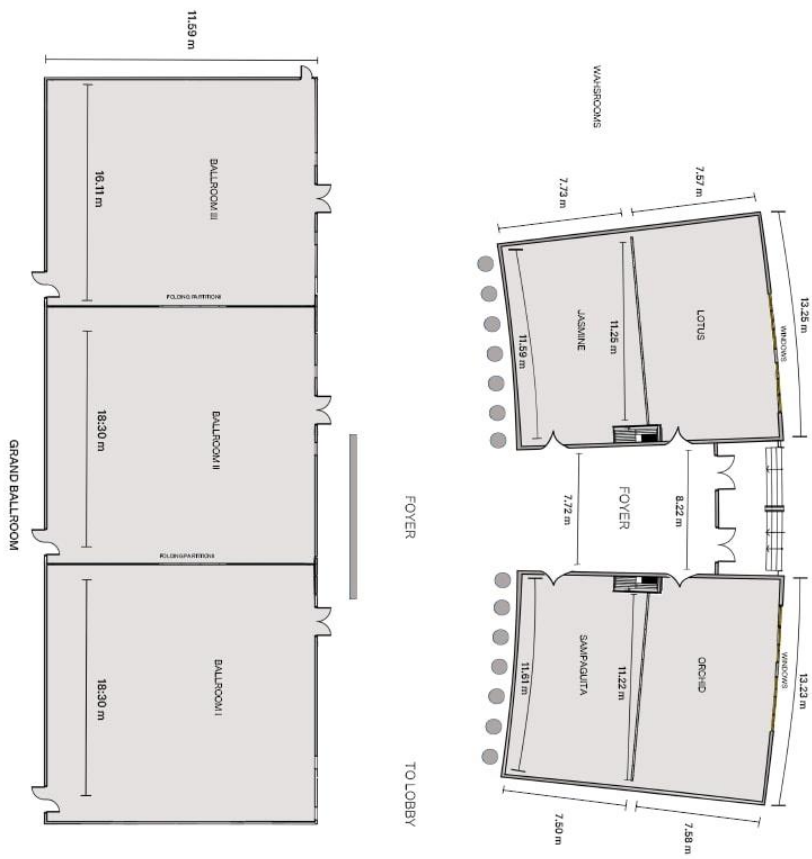
	16:25	67 S. Monteiro OS	150 K. Fukui OS-I	32 G. Vayssilov OS	102 X. Zhang OS	167 F. Souza Assis OS	295 R. Das OL-P	235 T. Howard OS-I	191 A. Esmaeili OS	311 Y. Tai OS-I
	16:45	36 L. Madeira Coelho OS	301 K. Okano OS-I	142 R. Nikolova OS	19 E. Ponnusamy OS	205 L. Garzon OS	29 P. Collignon OS	183 D. Aitkulov OS-P	192 A. Esmaeili OS	251 N. Alvarez OS
	17:05	56 V. Scarpini Candido OS	155 K. Omoya OS-K	242 M. Burgos OL	84 J. Ge OS	336 F. Souza Assis OS	82 V. Martinez-Pacheco OS	302 S. Yefremova OS-K	193 A. Esmaeili OS	203 A. Esmaeili OS
	19:00	GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom								

Thursday Schedule

Symposium	Composite (Meyers)	Oxidative (Inufusa)	Multiscale	Polymers (Matyjaszewski)	Geomechanics	Biomaterials	Carbon	Energy	SolidStateChemistry	
	Agroforestry		Mathematics (Kauffman)	Physical	Modelling		AdvancedMaterials		Battery	Biochar
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	
	Dusit 1	Dusit 2	Dusit 3	Sampaguita	Orchid	Jasmin	Lotus	Benjarong-Phuket	Benjarong Main Rest	
	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	2nd Floor	2nd Floor	
Thu. 20 Nov. 2025	08:00	SUMMIT PLENARY - Dusit Ballroom								
	12:00	LUNCH - Tradewinds Café								
	13:00	65 T. Jacintho Lopes OS	254 H. Inufusa OS-P	34 M. Janecek OS-K	87 W. Tian OS	91 W. Wu OS	100 H. Oudadesse OL	283 J. Antrekowitsch OS-P	194 A. Esmaeili OS	178 Y. Chashechkin OL-K
	13:20	53 P. Poubel Mendonça Da Silveira OS	140 F. Yang OS-K	45 M. Knapek OS	240 X. Qin OS	387 J. Qu OS	344 K. Pramanik OS-I	127 P. Aster OS-I	195 A. Esmaeili OS	179 Y. Chashechkin OL
	13:40	144 B. Araujo OS	130 Y. Harakawa OS-K	292 L. Rakotomanana OS	110 Z. Qiu OS	Round Table	107 J. Jehl OS	105 D. Patil OS	196 A. Esmaeili OS	180 Y. Chashechkin OL
	14:00	68 V. Scarpini Candido OS	234 Y. Harakawa OS-P	290 R. Das OL-K	116 Z. Zhao OS	Round Table	108 A. Poerio OS	Round Table	197 A. Esmaeili OS	113 J. Molenda OS
	14:20	POSTERS - Ballroom Foyer								
	14:25	103 H. Lopera OS	304 A. Merlino OS-P	15 X. Li OS-K	343 S. Ghosh OS	269 A. Filonov OS-K	26 B. Han OS	326 C. Tan OS-K	198 A. Esmaeili OS	261 A. Filonov OS
	14:45	172 D. Coura OS	14 D. Thomas OS-K	341 S. Woo OL	135 Q. Zhang OS	252 D. Alexandrov OS	122 J. Schweiger OS	83 M. Silva OS-I	199 A. Esmaeili OS	262 A. Filonov OS
	15:05	66 T. Jacintho Lopes OS	357 A. Sokolovskaya OS-I	Round Table	171 Z. Wang OS	263 A. Filonov OS	17 A. Yu OS	117 Z. Bakenov OS	200 A. Esmaeili OS	162 R. Singh OS
	15:25	Round Table	Round Table	Round Table	216 W. Gao OS	264 A. Filonov OS	164 P. Alam OS	147 G. Araujo Gois OS	201 A. Esmaeili OS	213 N. Chaubey OS
	15:45	COFFEE BREAK/POSTERS - Ballroom Foyer								

	16:05	328 F. Dube OL	Round Table	250 F. Fernandes OS	260 B. Palosz OS-K	266 A. Filonov OS-I	175 A. Yu OS	215 P. Fung OL	202 A. Esmaili OS	282 R. Gardas OS-K
	16:25	279 A. Sharma OS	Round Table	359 F. Fernandes OS	11 G. Duca OS-I	267 A. Filonov OS	272 S. Stefanov OS	20 H. Sanei OS-K	204 L. Garzon OS	337 R. Singh OS-I
	16:45	Round Table	Round Table	21 I. Smalyukh OS	10 M. Andruh OS	268 A. Filonov OS	273 S. Stefanov OS	Round Table	206 L. Garzon OS	218 A. Zekri OS
	17:05	Round Table	Round Table	Round Table	Round Table	270 A. Filonov OS	18 B. Almayyahi OS	Round Table	Round Table	Round Table
	19:00	FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL								

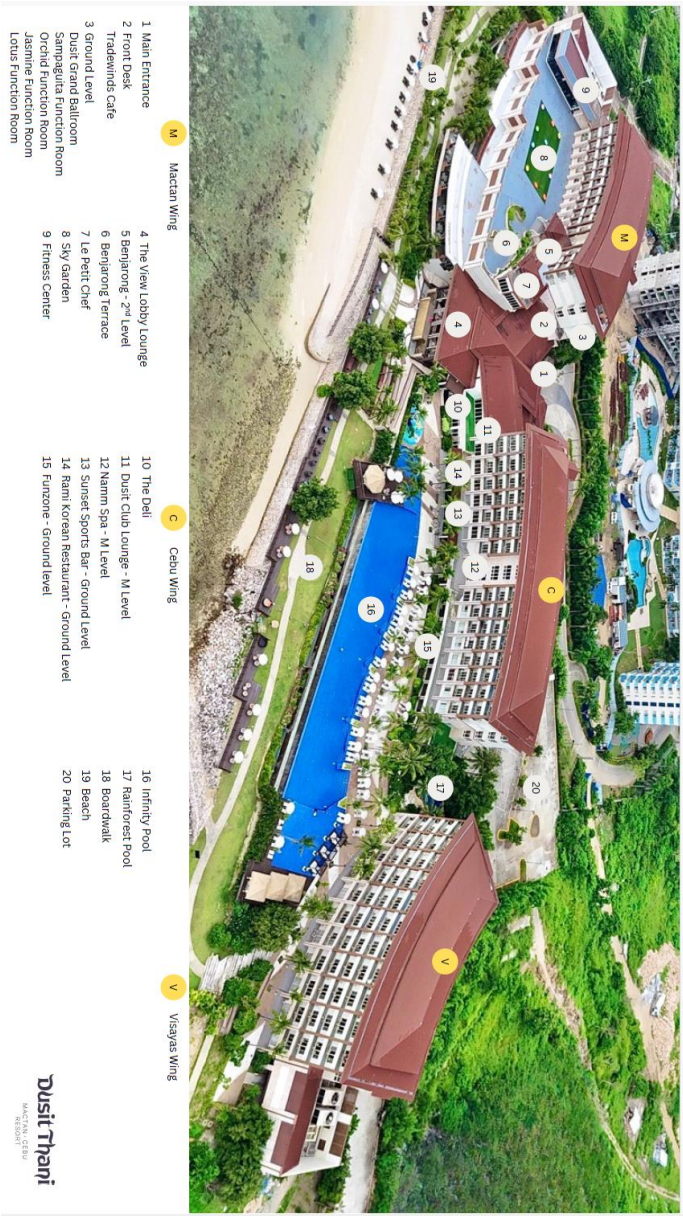
Meeting Rooms Diagram



FLOOR PLAN:
GROUND LEVEL
MAQTAN BUILDING
(BUILDING I)
FUNCTION ROOMS
GRANDBALLROOM

Dusit Thani
MAQTAN RESORT

Map of the Hotel



International Committee

This summit is being organized by an international committee spanning six continents and representing major industrial ferrous, nonferrous, materials and recycling companies as well as universities from around the world.



AFRICA

- **Chung Tae Kim**, Addis Ababa Science and Technology University, Ethiopia

ASIA

- **Farman Ahmed**, FMRRRC/P.C.S.I.R., Pakistan
- **Elliot Berry**, Hebrew University Hadassah Medical School, Israel
- **Paul Butterworth**, CRU International, Singapore
- **Lijie Guo**, University of Toronto, Canada
- **Yoshihisa Hayakawa**, Rikkyo University, Japan
- **Wei-Hua Huang**, Wuhan University, China
- **Haruhiko Inufusa**, TIMA Japan & Gifu University, Japan
- **Yoshihito Kawamura**, Kumamoto University, Japan
- **Shuji Kitayama**, Kobe Steel, Japan
- **Hirokazu Konishi**, National Institute of Technology (KOSEN), Suzuka College, Japan
- **Lang Liu**, Xi'an University, China
- **Akinori Murao**, JFE Steel Corporation, Japan
- **Seiji Nomura**, Nippon Steel Corp., Japan
- **Takahiko Okura**, Ehime University, Japan
- **Hideki Ono**, University of Toyama, Japan
- **R. M. Gamini Rajapakse**, University of Peradeniya, Sri Lanka
- **Koji Saito**, Nippon Steel, Japan
- **Kazuhiro Seto**, JFE Steel Corporation, Japan

- **Donald Shih**, Magnesium Research Center, Kumamoto University, Japan
- **Yuichi Shimakawa**, Kyoto University, Japan
- **Mikio Takano**, Okayama/Kyoto, Japan
- **Keyong Tang**, Zhengzhou University, China
- **Jun-Ichi Tani**, Nippon Steel Corp., Japan
- **Nguyen Nhu Thanh**, Leather&Shoes Research Institute, Vietnam
- **Sabu Thomas**, Mahatma Gandhi University, India
- **Zhi Wang**, Dongying Fangyuan, China
- **Toshikazu Yoshikawa**, Louis Pasteur Center, Japan
- **Masahiro Yoshizawa-Fujita**, Sophia University, Japan

AUSTRALIA

- **Raj Das**, RMIT University, Australia
- **Nasser Khalili**, UNSW, Australia
- **Liming Lu**, CSIRO, Australia
- **Douglas Macfarlane**, Monash University, Australia
- **Krishnaveni Venkidusamy**, University of South Australia, Australia

EUROPE

- **Elias Aifantis**, Aristotle University of Thessaloniki, Greece
- **Shumskiy Viktor Alexandrovich**, Science in the area of metallurgy, Kazakhstan
- **Christian Andre Amatore**, CNRS & PSL, French Academy of Sciences, France
- **Juergen Antrekowitsch**, Christian Doppler Laboratory, Austria
- **Michaela Barinova**, Tomas Bata University in Zlin, Czech Republic
- **Mariana Calin**, IFW Dresden, Germany
- **Claudio Capiglia**, Reliance Industries Limited, India
- **Nikoloz Chikhradze**, G. Tsulukidze Mining Institute, Georgia
- **Andrey Dmitriev**, Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Russian Federation
- **Jean-Marie Dubois**, Institut Jean Lamour, France
- **Jean Etourneau**, University of Bordeaux, France
- **Rasmus Fehrmann**, DTU, Denmark
- **Maarten Geerdes**, Geerdes Advies, Netherlands
- **Dyubanov Valeriy Grigorievich**, Baykov Metallurgy & Materials Institute, Russian Federation

- **Leontyev Leopold Igoryevich**, Russian Academy of Sciences, Russian Federation
- **Michail Kalogiannakis**, University of Thessaly, Greece
- **Soteris Kalogirou**, Cyprus University of Technology, Cyprus
- **Vasant Kumar**, University of Cambridge, United Kingdom
- **Sofia Labropoulou**, National Technical University, GREECE
- **Alois Loidl**, Institute of Physics, University of Augsburg, Germany
- **Rodrigo Martins**, CEMOP/UNINOVA, Portugal
- **Hassane Oudadesse**, University of Rennes, France
- **Hasan Ozgunay**, Ege University, Turkey
- **Ioannis Paspaliaris**, National Technical University of Athens, Greece
- **Francesco Pesavento**, University of Padova, Italy
- **Tetiana Prikhna**, V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Ukraine
- **Bernard Raveau**, University of Caen, France
- **Gudrun Saevarsdottir**, Reykjavik University, Iceland
- **Henrik Saxen**, Abo Akademi University, Finland
- **Igor Startsev**, VNIItsvetmet, Kazakhstan
- **Harry Van Goor**, UMCG, Netherlands
- **Tarasov Andrey Vladimirovich**, Gintsvetmet Institute, Russian Federation
- **Lothar Wondraczek**, Friedrich Schiller University Jena, Germany
- **Bernard Wood**, University of Oxford, United Kingdom
- **Yuanzheng Yue**, Aalborg University, Denmark

NORTH AMERICA

- **Katerina Aifantis**, University of Florida, United States
- **Antoine Allanore**, Massachusetts Institute of Technology, United States
- **Greg Baiden**, Penguin Automated Systems Inc., Canada
- **Douglas Bammann**, Mississippi State University, United States
- **Mike Baskes**, Mississippi State University, United States
- **Wendy Bohrson**, Colorado School of Mines, United States
- **David Carey**, Bear Metallurgical Company, United States
- **Harold Dodds**, University of Tennessee, United States
- **David Dzombak**, Carnegie Mellon University(CMU), United States
- **Yakov Gordon**, Hatch, Canada
- **Michael Grant**, Air Liquide, Germany
- **Frank Hawthorne**, University of Manitoba, Canada
- **J. Brian Jordon**, The University of Alabama, United States
- **Stewart Lewis**, Pyramid Polymers LLC, United States
- **Dennis Lu**, ArcelorMittal, United States

- **Fernand D. S. Marquis**, United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), United States
- **Stephen Miller**, University of Florida, United States
- **Nathaniel Morgan**, Los Alamos National Lab, United States
- **Kenneth Poeppelmeier**, Northwestern University, United States
- **Raj Prabhu**, Mississippi State University, United States
- **Arunachalam Rajendran**, University of Mississippi, United States
- **Hong Yong Sohn**, University of Utah, United States
- **Ponisseril Somasundaran**, Columbia University, United States
- **Ephraim Suhir**, Bell Laboratories, Murray Hill, NJ, United States
- **Tamer Turna**, Bloom Energy Corporation, United States

SOUTH AMERICA

- **Paulo Assis**, Universidade Federal de Ouro Preto, Brazil
- **Marcos De Campos**, Federal Fluminense University, Brazil
- **Jairton Dupont**, UFRGS, Brazil
- **Mery-Cecilia Gomez Marroquin**, National University of Engineering, Peru
- **Joao Ricardo Ribas**, Hospital Miguel Couto, Brazil
- **Erivelto Souza**, Federal University of São João Del Rei, Brazil

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Professional Societies

- American Chemical Society

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- Gifu University

Media

- International Conference Alerts

Travel Companies

- Air Canada
- Air France-KLM
- United Airlines
- SkyTeam
- Cathay Pacific
- Qatar Airways
- Lufthansa Group
- Emirates Airlines
- Singapore Airlines

Social Events

(Preliminary)

Monday, 17 November: Welcoming Informal Dinner and Dancing/Entertainment show at Boardwalk (outdoor).

Attire: Casual or Business

Tuesday, 18 November: Buffet Dinner and Filipino Night Dancing/Entertainment Show at Sky Garden (outdoor).

Attire: Casual or Business

Wednesday, 19 November: Gala Dinner and Awards Night, Full Course Meal & Dancing Show at Dusit Ballroom (indoor).

Attire: Formal Black Tie/Business

Thursday 20 November: Closing Social, Buffet Dinner/Entertainment Show **(to be confirmed)**

Attire: Casual

IMPORTANT NOTE: All attendees and guests must always keep their badges on, as they will be used to grant entry into all meals and activities. All accompanying guests must have registered and paid the fee, or they will be denied entry.

WARNING: The Organizing Committee reserves the right to modify/change or cancel the social activities without prior notice depending on the number of registrants in the web site for each activity.

Summit Plenary

(As of November 6, 2025 – subject to change)

SESSION: **SummitPlenaryTueAM**

Tue. 18 Nov. 2025

Room: **Dusit Ballroom**

Session Chair: Florian Kongoli

8:00: [SummitPlenaryTueAM01] OS

FLOGEN SUSTAINABILITY FRAMEWORK AND MODERN MEDICINE - PART 1

Florian Kongoli¹

¹FLOGEN Star OUTREACH, Montreal, Canada

Paper ID: 382

08:10: [SummitPlenaryTueAM02] OS General Plenary

UBIQUITIN PROTEOLYTIC SYSTEM - FROM BASIC MECHANISMS THRU HUMAN DISEASES AND ON TO DRUG DEVELOPMENT

Aaron Ciechanover¹

¹Technion-Israel Institute of Technology, Haifa, Israel

Paper ID: 363

08:40: [SummitPlenaryTueAM05] OS General Plenary

FIELDS OF DREAM; REDUCTION OF OXIDATIVE STRESS

Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 258

09:10: [SummitPlenaryTueAM08] OS General Plenary

A UNIFIED THEORY OF NEURODEGENERATIVE DISEASE ROOTED IN AXON-SPECIFIC DEAMIDATION

Davis Joseph^{1, 2}

¹Gifu University, Gifu, Japan; ²FLOGEN Technologies Inc, Montreal, Canada

Paper ID: 375

10:00: [SummitPlenaryTueAM13] OS

PLAGUES, VIRUSES, VACCINES AND ANTI-VAXERS: WHICH WILL BE THE VICTOR?

Harvey J. Alter¹

¹National Institutes of Health, Bethesda, United States

Paper ID: 391

10:10: [SummitPlenaryTueAM14] OS General Plenary
**BEYOND ORGAN-SPECIFIC ONCOLOGY: A UNIFIED THERAPEUTIC THEORY
FOR TREATMENTS OF CANCER VIA MASTER REGULATORS OF THE
UNIVERSAL APOPTOSIS NETWORK**

Davis Joseph^{1, 2}; Florian Kongoli³; Fuhua Yang¹; Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan; ²FLOGEN Technologies Inc, Montreal, Canada;

³FLOGEN Technologies, Mont-Royal, Canada

Paper ID: 374

10:40: [SummitPlenaryTueAM17] OS
**CHEMISTRY DEPARTMENT CLOSURES AND PRESIDENT TRUMP'S ACTIONS
TOWARD ACADEMIA PROMPT EXAMINING U.S. DEGREE ATTAINMENT
CHARACTERISTICS**

Donna Nelson¹

¹University of Oklahoma, Oklahoma, United States

Paper ID: 388

11:10: [SummitPlenaryTueAM20] OS General Plenary
INCENTIVES FOR SUSTAINING A GREEN WORLD

Robert J. Aumann¹

¹Hebrew University of Jerusalem, Jerusalem, Israel

Paper ID: 365

12:00 LUNCH - Tradewinds Café

SESSION: **SummitPlenaryWedAM**

Wed. 19 Nov. 2025

Room: **Dusit Ballroom**

Session Chair: Florian Kongoli

8:00: [SummitPlenaryWedAM01] OS

FLOGEN SUSTAINABILITY FRAMEWORK AND MODERN MEDICINE - PART 2

Florian Kongoli¹

¹FLOGEN Star OUTREACH, Montreal, Canada

Paper ID: 383

08:10: [SummitPlenaryWedAM02] OS

THEORY GUIDED BY EXPERIMENT AND BY CONNECTING THE DOTS

Rudy Marcus¹

¹California Institute of Technology, California, United States

Paper ID: 390

08:40: [SummitPlenaryWedAM05] OS General Plenary

**WHY SHOULD WE TEACH SCIENCE IN KINDERGARTENS AND
TECHNOLOGICAL ENTREPRENEURSHIP IN TECHNICAL UNIVERSITIES**

Dan Shechtman¹

¹Technion, Haifa, Israel

Paper ID: 366

09:10: [SummitPlenaryWedAM08] OS General Plenary

**KGHM SUCCESSES IN THE ENVIRONMENTAL PROTECTIONS, ECONOMIC
GROWTH AND SOCIAL DEVELOPMENT THROUGH SOUND GOVERNANCE AND
MANAGEMENT, SCIENCE AND TECHNOLOGY AND EDUCATION**

Andrzej Szydło¹

¹KGHM, Lubin, Poland

Paper ID: 398

09:40: [SummitPlenaryWedAM11] OS General Plenary

MATERIALS FOR THE FUTURE

Konstantin Novoselov¹

¹National University, Singapore

Paper ID: 364

10:10: [SummitPlenaryWedAM14] OS General Plenary

**MINERAL AND METAL PROCESSING ACTIVITIES AT NATIONAL CENTER FOR
INTEGRATED PROCESSING OF MINERAL RAW MATERIALS OF KAZAKHSTAN
IN THE VIEW OF SUSTAINABLE DEVELOPMENT**

Dosmurat Aitkulov¹

¹National Center for Integrated Processing of Mineral Raw Materials, Almaty,
Kazakhstan

Paper ID: 396

10:40: [SummitPlenaryWedAM17] OS General Plenary
TRADE, COMMERCE AND ECONOMY IN THE ERA OF SUSTAINABLE DEVELOPMENT

Charles Tang¹

¹President of the Chamber of Commerce and Industry Brazil-China and Paraguay-China, Rio de Janeiro, Brazil

Paper ID: 401

11:10: [SummitPlenaryWedAM20] OS General Plenary
AGEING AND NEURODEGENERATIVE DISEASES: MECHANISMS AND INTERVENTIONS

Nektarios Tavernarakis¹

¹Chair, EIT Governing Board (European Institute of Innovation & Technology), Heraklion, Greece

Paper ID: 394

12:00 LUNCH - Tradewinds Café

SESSION: **SummitPlenaryThuAM**

Thu. 20 Nov. 2025

Room: **Dusit Ballroom**

Session Chair: Florian Kongoli

8:00: [SummitPlenaryThuAM01] OS

FLOGEN SUSTAINABILITY FRAMEWORK AND MODERN MEDICINE - PART 3

Florian Kongoli¹

¹FLOGEN Star OUTREACH, Montreal, Canada

Paper ID: 384

08:10: [SummitPlenaryThuAM02] OS General Plenary

CORPUS CALLOSUM AT WORK: MUTUAL INSPIRATION OF SCIENCE AND THE ARTS.

Joachim Frank¹

¹Columbia University, New York, United States

Paper ID: 329

08:40: [SummitPlenaryThuAM05] OS General Plenary

LESSONS LEARNED IN 25 YEARS OF MEDIATION!

Louise Otis¹

¹NATO and OECD, Montreal, Canada

Paper ID: 395

09:10: [SummitPlenaryThuAM08] OS General Plenary

COMPOSITE AND CERAMIC ACHIEVEMENTS AND FUTURE CHALLENGES IN THE ERA OF SUSTAINABLE DEVELOPMENT

Marc Meyers¹

¹University of California San Diego, La Jolla, United States

Paper ID: 403

09:40: [SummitPlenaryThuAM11] OS General Plenary

ADVANCED MATERIALS SUCCESSES AND CHALLENGES IN THE ERA OF SUSTAINABLE DEVELOPMENT

Fernand D. S. Marquis¹

¹United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States

Paper ID: 397

10:10: [SummitPlenaryThuAM14] OS General Plenary

POLYMERS' SUCCESS STORIES AND FUTURE CHALLENGES IN THE ERA OF SUSTAINABLE DEVELOPMENT

Krzysztof Matyjaszewski¹

¹Carnegie Mellon University, Pittsburgh, United States

Paper ID: 400

10:40: [SummitPlenaryThuAM17] OS General Plenary
**SUCCESSES AND CHALLENGES ON GEOCHEMISTRY IN THE ERA OF
SUSTAINABLE DEVELOPMENT**

Barbara Dutrow¹

¹Louisiana State University, Baton Rouge, United States

Paper ID: 399

11:10: [SummitPlenaryThuAM20] OS General Plenary
MATHEMATICS APPLICATION IN THE ERA OF SUSTAINABLE DEVELOPMENT

Louis Kauffman¹

¹University of Illinois at Chicago, Chicago, United States

Paper ID: 402

12:00 LUNCH - Tradewinds Café

Scientific Program

Oral Presentations

Tuesday

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:

CompositeTuePM1-R1

**Meyers International Symposium (11th
Intl. Symp. on Composite, Ceramic &
Nano Materials Processing,
Characterization & Applications)**

Tue. 18 Nov. 2025 / Room: **Dusit 1**

Session Chairs: Henry Alonso Colorado Lopera

13:00: [CompositeTuePM101] OS Plenary

**JOURNEY TO THE CENTER OF THE EARTH: USING HIGH POWER LASERS TO
EXPLORE EXTREME REGIMES**

Marc Meyers¹

¹University of California San Diego, La Jolla, United States

Paper ID: 309

13:20: [CompositeTuePM102] OS

**ELECTRICAL CHARACTERISTICS OF COMPOSITE MATERIALS: AN IN-DEPTH
REVIEW**

Sergio Monteiro¹; **Thomaz Jacintho Lopes**¹; **Marc Meyers**²

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 59

13:40: [CompositeTuePM103] OS

THE CAUXI SPONGE FROM THE AMAZON BASIN

Marc Meyers¹; **Haocheng Quan**²; **Eduard Arzt**¹

¹University of California San Diego, La Jolla, United States; ²Nanjing University, Nanjing, China

Paper ID: 157

14:00: [CompositeTuePM104] OS

BALLISTIC BEHAVIOR OF EPOXY HYBRID COMPOSITES REINFORCED WITH ARAMID FABRICS AND RENEWABLE NATURAL FIBERS (JUTE, FIQUE, AND SISAL)

Belayne Zanini Marchi¹; Lisley Madeira Coelho¹; Laura Setti De Sousa²; Pedro Henrique Poubel Mendonça Da Silveira¹; Ary Machado De Azevedo¹; André Ben-Hur Da Silva Figueiredo¹; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brazil

Paper ID: 40

14:20 POSTERS - Ballroom Foyer

SESSION: CompositeTuePM2-R1	Meyers International Symposium (11th Intl. Symp. on Composite, Ceramic & Nano Materials Processing, Characterization & Applications)
Tue. 18 Nov. 2025 / Room: Dusit 1	
<u>Session Chairs:</u> Sergio Monteiro	

14:25: [CompositeTuePM205] OS Keynote

ADDITIVE MANUFACTURING OF POLYMER MATRIX COMPOSITES WITH COFFEE WASTE

Henry Alonso Colorado Lopera¹; Sergio Monteiro²; Marc Meyers³

¹Universidad de Antioquia, Medellín, Colombia; ²Military Institute of Engineering, Rio de Janeiro, Brazil; ³University of California San Diego, La Jolla, United States

Paper ID: 86

15:05: [CompositeTuePM207] OS

BALLISTIC PROPERTIES OF NOVEL EPOXY COMPOSITE REINFORCED WITH SEDGE FIBERS (CYPERUS MALACCENSIS) USED AS A STANDALONE TARGET AGAINST A 7.62 AMMUNITION

Belayne Zanini Marchi¹; Lucas Neuba¹; Elias Matias Bentes¹; Sarah De Melo¹; Sergio Monteiro¹; Marc Meyers²

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 48

15:25: [CompositeTuePM208] OS

COLD SINTERING OF HYDROXYAPATITE USING PHOSPHORIC ACID AS TRANSIENT LIQUID PHASE

Pedro Henrique Poubel Mendonça Da Silveira¹; Derick Horrana Souza Trindade¹; Ary Machado De Azevedo¹; Sergio Monteiro¹; Marcelo Henrique Prado Da Silva¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 37

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: CompositeTuePM3-R1	Meyers International Symposium (11th Intl. Symp. on Composite, Ceramic & Nano Materials Processing, Characterization & Applications)
Tue. 18 Nov. 2025 / Room: Dusit 1	
<u>Session Chairs:</u> Pedro Henrique Poubel Mendonça Da Silveira	

16:05: [CompositeTuePM309] OL Keynote

**MULTIMODAL APPROACHES IN MAGNETIC HYPERTHERMIA FOR ENHANCED
CANCER THERAPY: FROM NANOPARTICLE DESIGN TO CLINICAL
TRANSLATION**

Deepika Sharma¹

¹Institute of Nano Science and Technology, Mohali, India

Paper ID: 23

16:25: [CompositeTuePM310] OS

**MCNP ANALYSIS OF BISMUTH OXIDE-ENHANCED ARAMID-LINEN EPOXY
COMPOSITES FOR RADIOLOGICAL PROTECTION**

Sergio Monteiro¹; Thomaz Jacintho Lopes¹; Douglas Silva¹; Marc Meyers²

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 62

16:45: [CompositeTuePM311] OS

**EXPLORATORY STUDY ON THE EFFECT OF PIASSAVA FIBER ADDITION ON
THE PERMANENT DEFORMATION OF CLAYEY SOIL**

Lisley Madeira Coelho¹; Murilo Miguel Narciso, Sr¹; José Carlos Guimarães Júnior²; Sergio Monteiro¹; Antônio Carlos Rodrigues Guimarães, Sr.¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Government of the Federal District, Brazil, RJ, Brazil

Paper ID: 70

17:05: [CompositeTuePM312] OS

**NANOCOMPOSITE DEVELOPED FROM POLYMETHYL METHACRYLATE FIBERS
REINFORCED WITH REDUCED GRAPHENE OXIDE (rGO)**

Clarissa De Paula Dias¹; Bruno Cunha, Sousa Da¹; Marc Meyers²; Sergio Monteiro¹; Édio Junior¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 49

17:25 POSTERS - Ballroom Foyer

19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: OxidativeTuePM1-R2	Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)
Tue. 18 Nov. 2025 / Room: Dusit 2	
Session Chairs: Fuhua Yang; Koji Fukui	

13:00: [OxidativeTuePM101] OS Plenary
LIFE DEDICATED TO CANCER AND ANTIOXIDANTS
Haruhiko Inufusa¹
¹Gifu University, Gifu, Japan
Paper ID: 393

13:20: [OxidativeTuePM102] OS Plenary
**NOVEL PHOTOIMMUNOTHERAPY FOR HEAD AND NECK CANCER FOR
SUSTAINABLE FUNCTION**
Shigeru Hirano¹; Haruhiko Inufusa²
¹Kyoto Prefectural University of Medicine, Kyoto, Japan; ²Gifu University, Gifu, Japan
Paper ID: 104

13:40: [OxidativeTuePM103] OS Keynote
**THE ROLE OF ANTIOXIDANTS IN HUMAN EOSINOPHILIC CHRONIC
RHINOSINUSITIS**
Davis Joseph^{1, 2}; Takeshi Kusunoki³; Katsuhisa Ikeda⁴; Florian Kongoli⁵; Fuhua Yang¹;
Haruhiko Inufusa¹
¹Gifu University, Gifu, Japan; ²FLOGEN Technologies Inc, Montreal, Canada;
³Juntendo University Shizuoka Hospital, Izunokuni, Japan; ⁴Juntendo Tokyo Koto
Geriatric Medical Center, Tokyo, Japan; ⁵FLOGEN Technologies, Mont-Royal, Canada
Paper ID: 379

14:00: [OxidativeTuePM104] OS Keynote
**OXIDATIVE STRESS AND BRAIN INFLAMMATION INDUCES WIDE AREA
DISEASES**
Haruhiko Inufusa¹; Fuhua Yang¹; Kentaro Omoya¹; Yoshiaki Harakawa¹; Shigeru
Hirano²; Yoichiro Sugiyama³; Yuki Sato³; Koji Fukui⁴
¹Gifu University, Gifu, Japan; ²Kyoto Prefectural University of Medicine, Kyoto, Japan;
³Saga University, Saga, Japan; ⁴Shibaura Institute of Technology, Saitama, Japan
Paper ID: 256

14:20 POSTERS - Ballroom Foyer

SESSION:
OxidativeTuePM2-R2

**Inufusa International Symposium (5th
Intl. Symp. on Oxidative Stress for
Sustainable Development of Human
Beings)**

Tue. 18 Nov. 2025 / Room: **Dusit 2**

Session Chairs: Haruhiko Inufusa; Yoshiaki Harakawa

14:25: [OxidativeTuePM205] OS Plenary

**LOW CONCENTRATION OF HYDROGEN PEROXIDE INDUCES NEURITE
DEGENERATION IN CULTURED CELLS**

Koji Fukui¹

¹Shibaura Institute of Technology, Saitama, Japan

Paper ID: 151

14:45: [OxidativeTuePM206] OS Keynote

**INTEGRATING NOVEL COMBINATION ANTIOXIDANT THERAPIES FOLLOWING
RADIOTHERAPY FOR HEAD AND NECK CANCERS**

Davis Joseph^{1,2}; Keiichiro Okano³; Shigeru Hirano³; Florian Kongoli⁴; Fuhua Yang¹;
Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan; ²FLOGEN Technologies Inc, Montreal, Canada; ³Kyoto
Prefectural University of Medicine, Kyoto, Japan; ⁴FLOGEN Technologies, Mont-Royal,
Canada

Paper ID: 380

15:05: [OxidativeTuePM207] OS Keynote

**CONTINUOUS ADMINISTRATION OF TOCOTRIENOLS EXERTS ANTI-OBESITY
EFFECTS IN OBESE MICE**

Koji Fukui¹; Yugo Kato²; Hayate Suzuki¹

¹Shibaura Institute of Technology, Saitama, Japan; ²Tottori University, Yonago, Japan

Paper ID: 225

15:25: [OxidativeTuePM208] OS Plenary

**MODULATION OF OXIDATIVE STRESS BY TARGETED NANOPARTICLE
DELIVERY OF ALISKIREN AND SIMVASTATIN IN EXPERIMENTAL
CARDIOMETABOLIC MODELS**

Olga Pechanova¹; Andrej Barta¹; Stanislava Vrankova¹; Martina Cebova¹

¹Slovak Academy of Sciences, Bratislava, Slovakia

Paper ID: 125

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: OxidativeTuePM3-R2	Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)
Tue. 18 Nov. 2025 / Room: Dusit 2	
Session Chairs: Davis Joseph; Haruhiko Inufusa	

16:05: [OxidativeTuePM309] OS Plenary

DISEASE PREVENTION: THE RELATIONSHIP BETWEEN LIFESTYLE HABITS AND OXIDATIVE STRESS

Fuhua Yang¹; Yoshiaki Harakawa¹; Kentaro Omoya¹; Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 131

16:25: [OxidativeTuePM310] OS Keynote

INFLUENCES OF INHIBITING THE PONTINE RESPIRATORY GROUP ON SWALLOWING AND OXIDATIVE/ANTIOXIDATIVE STRESS

Yuki Sato¹; Yoichiro Sugiyama¹; Haruhiko Inufusa²; Fuhua Yang²; Davis Joseph^{2,3}; Shigeru Hirano⁴

¹Saga University, Saga, Japan; ²Gifu University, Gifu, Japan; ³FLOGEN Technologies Inc, Montreal, Canada; ⁴Kyoto Prefectural University of Medicine, Kyoto, Japan

Paper ID: 159

16:45: [OxidativeTuePM311] OS Plenary

IMPACT AND OPTIMIZATION OF ANTIOXIDANT THERAPY IN RADIATION TREATMENT FOR HEAD AND NECK CANCER

Keiichihiro Okano¹; Shigeru Hirano¹; Haruhiko Inufusa²

¹Kyoto Prefectural University of Medicine, Kyoto, Japan; ²Gifu University, Gifu, Japan

Paper ID: 148

17:05: [OxidativeTuePM312] OS Invited

ANTIOXIDANT SUPPLEMENTS AS A MEASURE AGAINST ELECTROMAGNETIC WAVES

Yoshiaki Harakawa¹; Fuhua Yang¹; Kentaro Omoya¹; Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 132

17:25 POSTERS - Ballroom Foyer

19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION: MathematicsTuePM1-R3	Kauffman International Symposium (8th Intl. Symp. on Sustainable Mathematics Applications)
Tue. 18 Nov. 2025 / Room: Dusit 3	
Session Chairs: Ruggero Maria Santilli; Peter Rowlands	

13:00: [MathematicsTuePM101] OS Plenary
KNOTS AND PHYSICS - A CONTINUING REVOLUTION
Louis Kauffman¹
¹University of Illinois at Chicago, Chicago, United States
 Paper ID: 314

13:20: [MathematicsTuePM102] OS
NON-COMMUTATIVE WORLDS
Louis Kauffman¹
¹University of Illinois at Chicago, Chicago, United States
 Paper ID: 312

14:00: [MathematicsTuePM104] OS Plenary
THE OPERATOR THAT DRIVES FUNDAMENTAL PHYSICS
Peter Rowlands¹
¹University of Liverpool, Liverpool, United Kingdom
 Paper ID: 339

14:20 POSTERS - Ballroom Foyer

SESSION: MathematicsTuePM2-R3	Kauffman International Symposium (8th Intl. Symp. on Sustainable Mathematics Applications)
Tue. 18 Nov. 2025 / Room: Dusit 3	
Session Chairs: TBA	

14:25: [MathematicsTuePM205] OS
KNOTS AND APPLICATIONS – TALK NUMBER 1
Louis Kauffman¹
¹University of Illinois at Chicago, Chicago, United States
 Paper ID: 319

15:05: [MathematicsTuePM207] OS
KNOTS AND APPLICATIONS – TALK NUMBER 2
Louis Kauffman¹
¹University of Illinois at Chicago, Chicago, United States
 Paper ID: 320

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: MathematicsTuePM3-R3	Kauffman International Symposium (8th Intl. Symp. on Sustainable Mathematics Applications)
Tue. 18 Nov. 2025 / Room: Dusit 3	
Session Chairs: Peter Rowlands; Louis Kauffman	

16:05: [MathematicsTuePM309] OL Plenary
**INTRODUCTION TO ISO, GENO-, AND HYPER-MATHEMATICS AND THEIR
APPLICATIONS IN PHYSICS, CHEMISTRY AND BIOLOGY**

Ruggero Maria Santilli¹; Emanuele Velardo¹

¹The Institute for Basic Research, Palm Harbor, United States

Paper ID: 360

16:25: [MathematicsTuePM310] OL Keynote
**INTRODUCTION TO CLEAN SUSTAINABLE HYPERFUSIONS WITHOUT THE
COULOMB BARRIER**

Ruggero Maria Santilli¹

¹The Institute for Basic Research, Palm Harbor, United States

Paper ID: 361

16:45: [MathematicsTuePM311] OS Plenary
SANTILLI'S PROGRESSIVE VERIFICATION OF EINSTEIN'S DETERMINISM

Arun Muktibodh¹

¹Mohota College of Science, Nagpur, India

Paper ID: 355

17:05: [MathematicsTuePM312] OL
WHENCE QUANTUM PHASE?

Garnet Ord¹

¹Toronto Metropolitan University, Toronto, Canada

Paper ID: 367

17:25 POSTERS - Ballroom Foyer

19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:
PolymersTuePM1-R4

**Matyjaszewski International
Symposium (5th Intl. Symp. on Green
Chemistry & Polymers & their
Application for Sustainable
Development)**

Tue. 18 Nov. 2025 / Room: **Sampaguita**

Session Chairs: Rigoberto Castillo Advincula; Kazuo Tanaka

13:00: [PolymersTuePM101] OS Plenary

**MACROMOLECULAR ENGINEERING BY ATOM TRANSFER RADICAL
POLYMERIZATION**

Krzysztof Matyjaszewski¹

¹Carnegie Mellon University, Pittsburgh, United States

Paper ID: 332

13:40: [PolymersTuePM103] OS Keynote

BIO-INTEGRATED ELECTRONICS USING TISSUE-ADHESIVE ULTRATHIN FILMS

Kento Yamagishi¹

¹University of Tokyo, Tokyo, Japan

Paper ID: 247

14:00: [PolymersTuePM104] OS

**SYNTHESIS OF FLUORESCENT FUSED HETEROCYCLIC POLYMERS BY C–H
ACTIVATION/ANNULATION POLYMERIZATIONS**

Ting Han¹

¹Shenzhen University, Shenzhen, China

Paper ID: 98

14:20 POSTERS - Ballroom Foyer

SESSION:
PolymersTuePM2-R4

**Matyjaszewski International
Symposium (5th Intl. Symp. on Green
Chemistry & Polymers & their
Application for Sustainable
Development)**

Tue. 18 Nov. 2025 / Room: **Sampaguita**

Session Chairs: Ananda Amarasekara; Krzysztof Matyjaszewski

14:25: [PolymersTuePM205] OS

FUNCTIONAL POLYMERS VIA DYNAMIC COVALENT CHEMISTRY

Jiajun Yan¹

¹ShanghaiTech University, Shanghai, China

Paper ID: 99

14:45: [PolymersTuePM206] OS
PRECISION SYNTHESIS OF MECHANICALLY INTERLOCKED POLYMERS
Yunyan Qiu¹

¹National University of Singapore, Singapore
Paper ID: 143

15:05: [PolymersTuePM207] OS
**ARTIFICIAL CELLULASE CATALYSTS FOR BIOFUEL AND POLYMER
FEEDSTOCK APPLICATIONS**
Ananda Amarasekara¹

¹Prairie View A&M University, Prairie View, United States
Paper ID: 181

15:25: [PolymersTuePM208] OS
**MATERIAL RECYCLING OF NETWORK POLYMERS BASED ON BIO-DERIVED
JUGLONE NEW CROSSLINKERS**
Takeo Suga¹

¹Waseda University, Tokyo, Japan
Paper ID: 300

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: PolymersTuePM3-R4	Matyjaszewski International Symposium (5th Intl. Symp. on Green Chemistry & Polymers & their Application for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Sampaguita	
Session Chairs: Fabienne Samyn; Xinyu Liu	

16:05: [PolymersTuePM309] OS
**DEVELOPMENT OF ENVIRONMENT-SENSITIVE LUMINOCHROMIC MATERIALS
BASED ON ELEMENT-BLOCKS**
Kazuo Tanaka¹; Taichi Kato¹; Masayuki Gon¹

¹Kyoto University, Kyoto, Japan
Paper ID: 310

16:25: [PolymersTuePM310] OS Keynote
**SUSTAINABLE SELF-STRATIFYING COATINGS: A PATH TOWARD
MULTIFUNCTIONAL, REPAIRABLE AND RECYCLABLE SURFACE SYSTEMS**
Maude Jimenez¹; Alban Kerrache¹; Adrien Lebeau¹; Julie Bratananu¹; Mathilde
Casetta¹; Fabienne Samyn¹; Jean-François Gohy²

¹Université de Lille, Lille, France; ²Université Catholique de Louvain, Louvain-la-Neuve,
Belgium
Paper ID: 114

16:45: [PolymersTuePM311] OS
RECYCLABLE INTUMESCENT COATING FOR FIRE PROTECTION
Fabienne Samyn¹; Kadir Apaydin¹; Maude Jimenez¹

¹Université de Lille, Lille, France
Paper ID: 118

17:05: [PolymersTuePM312] OS
SELF-ASSEMBLED PROTEIN-POLYMER CONJUGATES: SYNTHESIS AND APPLICATIONS
Xinyu Liu¹

¹Peking University, Beijing, China
Paper ID: 299

17:25 POSTERS - Ballroom Foyer

19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:
GeochemistryTuePM1-R5

**Dutrow International Symposium (4th
Intl. Symp. on Geochemistry for
Sustainable Development)**

Tue. 18 Nov. 2025 / Room: **Orchid**

Session Chairs: Nancy Ross; Basilios Tsikouras

13:00: [GeochemistryTuePM101] OS Plenary
MINERALS AS THE GEOCHEMICAL CORNERSTONE OF SUSTAINABILITY
Barbara Dutrow¹

¹Louisiana State University, Baton Rouge, United States
Paper ID: 177

13:20: [GeochemistryTuePM102] OS Plenary
A COMPARATIVE STUDY OF THE STRUCTURAL EVOLUTION AND PROPERTIES OF RARE-EARTH COMPOUNDS
Nancy Ross¹

¹Virginia Tech, Blacksburg, United States
Paper ID: 236

13:40: [GeochemistryTuePM103] OS
A LION ON THE SILK ROAD
Gilberto Artioli¹; Ivana Angelini¹; Massimo Vidale¹

¹University of Padova, Padova, Italy
Paper ID: 271

14:00: [GeochemistryTuePM104] OS

CHARACTERISATION AND SUSTAINABLE MANAGEMENT OF FLY ASH FROM BRUNEI DARUSSALAM

Basilios Tsikouras¹; Kai Yang²; Abdul Hanif Mahadi¹; Hui Xie²; Adlina Misli¹; Haezan Jangarun¹; Wadina Sufri¹; Azrina Boey¹; Balqis Bakhtiar¹; Afiq Ahmad³; Elena Ifandi¹

¹Universiti Brunei Darussalam, Bandar Seri Begawan, Brunei Darussalam; ²Chongqing University, Chongqing, China; ³Politeknik Brunei, Bandar Seri Begawan, Brunei Darussalam

Paper ID: 350

14:20 POSTERS - Ballroom Foyer

SESSION: GeochemistryTuePM2-R5	Dutrow International Symposium (4th Intl. Symp. on Geochemistry for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Orchid	
<u>Session Chairs:</u> Megan Householder; Barbara Dutrow	

14:25: [GeochemistryTuePM205] OS

AUTHIGENIC PYRITE MORPHOLOGIES AND OXIDATION PATHWAYS IN BRUNEI SEDIMENTS: IMPLICATIONS FOR SOIL ACIDIFICATION

Basilios Tsikouras¹; Azrina Boey¹; Elena Ifandi¹

¹Universiti Brunei Darussalam, Bandar Seri Begawan, Brunei Darussalam

Paper ID: 351

14:45: [GeochemistryTuePM206] OS Plenary

MASS AND CHARGE TRANSPORT IN OXIDES – FROM ENERGY CONVERSION TO MEMRISTORS

Manfred Martin¹

¹RWTH Aachen University, Aachen, Germany

Paper ID: 81

15:05: [GeochemistryTuePM207] OS

TOURMALINE: A MONITOR OF GEOCHEMICAL PROCESSES

Darrell Henry¹

¹Louisiana State University, Baton Rouge, United States

Paper ID: 169

15:25: [GeochemistryTuePM208] OS

STAUROLITE NUCLEATION PATTERNS IN NW MAINE USA AND THEIR RELATIONSHIP TO HEATING RATES AND ADVECTIVE FLOW

C. T. (Tom) Foster, Jr¹

¹University of Iowa, Iowa City, United States

Paper ID: 275

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: GeochemistryTuePM3-R5	Dutrow International Symposium (4th Intl. Symp. on Geochemistry for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Orchid	
Session Chairs: Sabine Dietrich; Darrell Henry	

16:05: [GeochemistryTuePM309] OS

COLOR CENTERS H3 AND H4 IN GEM DIAMONDS: DISTINGUISHING NATURAL FROM ARTIFICIAL ORIGINS

Wuyi Wang¹

¹Gemological Institute of America (GIA), New York, United States

Paper ID: 154

16:25: [GeochemistryTuePM310] OS Invited

SURFACE ENERGY MEASUREMENTS OF AMORPHOUS SILICATES AND IMPLICATIONS FOR THE SILICATE CLOUDS IN HOT EXOPLANET ATMOSPHERES

Megan Householder¹; James Lyons²; Tamilarasan Subramani¹; Kristina Lilova¹; Alexandra Navrotsky³

¹Arizona State University, Tempe, United States; ²Planetary Sciences Institute, Tucson, United States; ³Arizona State University, Phoenix, United States

Paper ID: 73

16:45: [GeochemistryTuePM311] OL

SELF-ORGANIZATION, PATTERN FORMATION, AND COMPLEXITY IN EARTH'S SYSTEMS AND RESOURCES

Sabine Dietrich¹

¹Technical University of Berlin, Berlin, Germany

Paper ID: 333

17:05: [GeochemistryTuePM312] OS

THE EFFECT OF Cr CONTENT ON THE ACTIVATION ENERGY OF ORDER-DISORDER TRANSITION IN Mg-AI SPINEL

Chengsi Wang¹; Andy H. Shen¹

¹Gemmological Institute, China University of Geosciences, Wuhan, China

Paper ID: 316

17:25 POSTERS - Ballroom Foyer

19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:

AdvancedMaterialsTuePM1-R6

**9th Intl Symposium on New &
Advanced Materials and Technologies
for Energy, Environment, Health and
Sustainable Development**

Tue. 18 Nov. 2025 / Room: **Jasmin**

Session Chairs: Alena Pribulova; Fernand D. S. Marquis

13:00: [AdvancedMaterialsTuePM101] OS Plenary

**THE ROLE OF TRANSFORMATIVE MATERIALS AND TECHNOLOGIES ON
ENERGY, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

Fernand D. S. Marquis¹

¹United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States

Paper ID: 257

13:20: [AdvancedMaterialsTuePM102] OS Keynote

MULTIFUNCTIONAL CELLULOSE BEADS FOR WATER TREATMENT

Carla Vilela¹

¹University of Aveiro, Aveiro, Portugal

Paper ID: 52

13:40: [AdvancedMaterialsTuePM103] OS Keynote

**HYDROGEN AND CARBON PRODUCTION VIA METHANE PYROLYSIS IN LIQUID
METAL REACTORS: INVESTIGATING IRON–SILICON–MANGANESE MELTS**

Christoph Scherr¹; David Scheiblehner¹; Helmut Antrekowitsch¹

¹Technical University of Leoben, Leoben, Austria

Paper ID: 124

14:00: [AdvancedMaterialsTuePM104] OS Plenary

TI-AL-C, (Ti,Mo)-AL-C AND (Ti,Cr)-AL-C COATINGS FOR FUEL CELLS

Tetiana Prikhna¹; Alexander Kuprin²; Viktoriya Podhurska³; Viktoriia Shtefan⁴; Vladimir Sverdun¹; Myroslav Karpets¹; Orest Ostash³; Fernand D. S. Marquis⁵; Pavel Potapov⁴; Semyon Ponomarov⁶; Tetiana Serbeniuk¹; Viktor Moshchil¹

¹V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; ²National Science Center Kharkov Institute of Physics and Technology, Kharkov, Ukraine; ³Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Lviv, Ukraine; ⁴Leibniz Institute for Solid State and Materials Research, Dresden, Germany; ⁵United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States;

⁶Institute of Semiconductor Physics, Kyiv, Ukraine

Paper ID: 146

14:20 POSTERS - Ballroom Foyer

SESSION:

AdvancedMaterialsTuePM2-R6

**9th Intl Symposium on New &
Advanced Materials and Technologies
for Energy, Environment, Health and
Sustainable Development**

Tue. 18 Nov. 2025 / Room: **Jasmin**

Session Chairs: Sanjeev Khanna; Farida Kapsalamova

14:25: [AdvancedMaterialsTuePM205] OS Keynote

PRODUCTION OF HYDROGEN AND CARBON BY METHANE PYROLYSIS IN LIQUID METALS

David Scheiblehner¹; Christoph Scherr¹; Helmut Antrekowitsch¹

¹Technical University of Leoben, Leoben, Austria

Paper ID: 129

14:45: [AdvancedMaterialsTuePM206] OS Keynote

PLASMA-ELECTROLYTE TECHNOLOGY FOR POST-PROCESSING THE OBJECTS PRINTED BY SELECTIVE LASER MELTING METHOD

Marcela Pokusova¹; Zuzana Gabrisova¹; Alena Pribulova²; Jana Petru³; Ivan Moravek¹; Peter Futas²; Jiri Hajnys³; Alena Brusilova¹

¹Slovak University of Technology in Bratislava, Bratislava, Slovakia; ²Technical University of Kosice, Kosice, Slovakia; ³Technical University of Ostrava, Ostrava, Czech Republic

Paper ID: 165

15:05: [AdvancedMaterialsTuePM207] OS Keynote

ULTRAHIGHTEMPERATURE HfB₂ AND HfB₂-SiC CERAMICS

Tetiana Prikhna¹; Pavlo Barvitskiy¹; Hakan Ünsal²; Viktor Moshchil¹; Anastasia Lokatkina¹; Olena Prysiashna¹; Fernand D. S. Marquis³

¹V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; ²Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia; ³United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States

Paper ID: 97

15:25: [AdvancedMaterialsTuePM208] OS

DEMONSTRATION OF GALLIUM ARSENIDE METASURFACES FOR HIGH-ANGLE DEFLECTION AND STRUCTURED LIGHT MANIPULATION

Jui-Cho Yang¹; Meng-Hsin Chen¹

¹National United University, Miaoli, Taiwan

Paper ID: 232

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:

AdvancedMaterialsTuePM3-R6

**9th Intl Symposium on New &
Advanced Materials and Technologies
for Energy, Environment, Health and
Sustainable Development**

Tue. 18 Nov. 2025 / Room: **Jasmin**

Session Chairs: Marcela Pokusova; Konrad Swierczek

16:05: [AdvancedMaterialsTuePM309] OS Keynote

SOLUBILITY OF CARBON DIOXIDE IN TRIFLATE-BASED IONIC LIQUIDS

Amr Henni¹

¹University of Regina, Regina, Canada

Paper ID: 317

16:25: [AdvancedMaterialsTuePM310] OS

**ENGINEERING DOUBLE-PEROVSKITE AIR ELECTRODES FOR SOLID OXIDE
CELLS THROUGH COMPOSITION AND MORPHOLOGY**

Jacek Winiarski¹; Piotr Winiarz²; Konrad Swierczek¹

¹AGH University of Krakow, Kraków, Poland; ²AGH University of Krakow, Krakow, Poland

Paper ID: 327

16:45: [AdvancedMaterialsTuePM311] OS Keynote

**CATALYTIC MATERIALS AND SYSTEM CONFIGURATIONS FOR THE HIGH-
TEMPERATURE CO-ELECTROLYSIS OF H₂O AND CO₂ IN REVERSIBLE SOLID
OXIDE CELLS**

Konrad Swierczek¹

¹AGH University of Krakow, Kraków, Poland

Paper ID: 163

17:05: [AdvancedMaterialsTuePM312] OS Keynote

TaB₂- BASED ULTRA HIGH TEMPERATURE COMPOSITE MATERIALS

Tetiana Prikhna¹; Pavlo Barvitskiy¹; Myroslav Karpets¹; Viktor Moshchil¹; Edwin
Gevorkyan²; Semyon Ponomarov³; Fernand D. S. Marquis⁴; Leonid Devin⁵; Anastasia
Lokatkina¹

¹V. Bakul Institute for Superhard Materials of the National Academy of Sciences of
Ukraine, Kyiv, Ukraine; ²Cermet-Ukraine Ltd. Science and Production Company,
Kharkiv, Ukraine; ³Institute of Semiconductor Physics, Kyiv, Ukraine; ⁴United Nano
Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS),
Seaside, United States; ⁵V. Bakul Institute for Superhard Materials of the National
Academy of Sciences of Ukraine, Kiev, Ukraine

Paper ID: 338

17:25 POSTERS - Ballroom Foyer

19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

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64 | www.flogen.org/sips2025

SESSION: LawsTuePM1-R7	Otis International Symposium (5th Intl Symp on Law & its Applications for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Lotus	
<u>Session Chairs:</u> Gislaine Soares Araujo; Shingo Murakami	

13:00: [LawsTuePM101] OS Plenary
**CAUSAL PROOF IN TOXIC TORTS: THE DISCREPANCY BETWEEN TYPE-LEVEL
AND TOKEN-LEVEL CAUSATION**

Shingo Murakami¹; Shinto Teramoto¹

¹Kyushu University, Fukuoka, Japan

Paper ID: 226

13:20: [LawsTuePM102] OL Plenary
**AI AND THE IMPACT ON THE LEGAL PROFESSION AND THE TRAINING OF
LAYWERS IN THE FUTURE**

Malcolm McNeil¹

¹ArentFox Schiff LLP, Los Angeles, United States

Paper ID: 220

13:40: [LawsTuePM103] OL Plenary
**THE UNITED NATIONS, THE WORLD HEALTH ORGANIZATION AND
SUSTAINABILITY HEALTH GOALS IN THE AFTERMATH OF COVID-19**

Ian Freckelton, Ao Kc¹

¹Supreme Court of Nauru, Parkville, Australia

Paper ID: 294

14:00: [LawsTuePM104] OL
**THE LIABILITY OF COMPANY MANAGERS FROM THE IMPOSITION OF
ENVIRONMENTAL TAXES AND ENVIRONMENTAL TAX PENALTIES ON LEGAL
ENTITIES: DOES IT PROMOTE SUSTAINABLE DEVELOPMENT?**

Konstantinos Parcharidis¹

¹Panteion University, Athens, Greece

Paper ID: 39

14:20 POSTERS - Ballroom Foyer

SESSION: LawsTuePM2-R7	Otis International Symposium (5th Intl Symp on Law & its Applications for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Lotus	
<u>Session Chairs:</u> Shinto Teramoto; Robert Haemer	

14:25: [LawsTuePM205] OL Keynote

PREPARING FOR COVID-30: THE CONTRIBUTION OF PUBLIC HEALTH LAW

Ian Freckelton, Ao Kc¹

¹Supreme Court of Nauru, Parkville, Australia

Paper ID: 286

14:45: [LawsTuePM206] OL

WHO OWNS COPYRIGHT IN AI GENERATIVE WORKS—A NEW SUI GENERIS RIGHT IN AI? A COMPARATIVE STUDY

Rohan Kariyawasam¹

¹Anglia Ruskin University, Cambridge, United Kingdom

Paper ID: 246

15:05: [LawsTuePM207] OL

CAN WE – STILL – OVERLOOK ESG?

Maria Stefanaki¹

¹Fortsakis, Diakopoulos & Associates Law Firm, Athens, Greece

Paper ID: 368

15:25: [LawsTuePM208] OS

SUSTAINABILITY AND THE CHANGING LANDSCAPE OF THE LEGAL PROFESSION

Coli Theron¹

¹Ardea International, Henfield, United Kingdom

Paper ID: 149

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: LawsTuePM3-R7	Otis International Symposium (5th Intl Symp on Law & its Applications for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Lotus	
<u>Session Chairs:</u> Shingo Murakami; Maria Stefanaki	

16:05: [LawsTuePM309] OS

OVERVIEW OF CHINA LABOR LAW SYSTEM

Armstrong Chen¹

¹Beijing Dacheng Law Offices, LLP(Shanghai), Shanghai, China

Paper ID: 219

16:25: [LawsTuePM310] OS

INTERNATIONAL NUCLEAR LIABILITY; UPDATE OF THE CONVENTION ON SUPPLEMENTAL COMPENSATION FOR NUCLEAR DAMAGE

Robert Haemer¹

¹George Washington University Law School, Alexandria, United States

Paper ID: 121

16:25: [LawsTuePM311] OS
CHILD-FRIENDLY AI TO STRENGTHEN THE RIGHT TO BE HEARD AND ACCESS TO JUSTICE FOR CHILDREN IN JUDICIAL PROCEEDINGS

Nathalia María Colmán Gaona¹
¹Public Defender's Office of Paraguay, Asunción, Paraguay
Paper ID: 405

17:25 POSTERS - Ballroom Foyer
19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: EconomyTuePM1-R8	Tang International Symposium (Intl. Symp. on Economy and Commerce for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Benjarong-Phuket	
<u>Session Chairs:</u> Jessica Chenu; Norman Dytianquin	

13:00: [EconomyTuePM101] OS Plenary
BRAZIL CHINA AN ALLIANCE OF GIANTS FOR MUTUAL PROSPERITY
Charles Tang¹
¹President of the Chamber of Commerce and Industry Brazil-China and Paraguay-China, Rio de Janeiro, Brazil
Paper ID: 372

13:20: [EconomyTuePM102] OS Keynote
INTERNATIONAL TRADE BETWEEN WITHOUT DIPLOMATIC RELATIONS: THE CASE OF PARAGUAY AND CHINA
Jessica Chenu¹
¹Chamber of Industry and Commerce Paraguay - China, Asunción, Paraguay
Paper ID: 285

13:40: [EconomyTuePM103] OS
GREEN AMMONIA AS AN ENERGY VECTOR: RENEWABLE ENERGY AND ECONOMIC GROWTH OPPORTUNITIES FOR PARAGUAY IN GLOBAL SUSTAINABLE TRADE
Tamara Mandelburger¹
¹Manchen EAS, Manchen, Paraguay
Paper ID: 340

14:00: [EconomyTuePM104] OS Keynote
DISRUPTIVE CHAOS AND THE RECONFIGURATION OF THE VALUE CHAIN: A NEW STRATEGIC PARADIGM
Santiago Maya¹
¹Marktech Consulting, Sao Paulo, Brazil
Paper ID: 243

14:20 POSTERS - Ballroom Foyer

SESSION: EconomyTuePM2-R8	Tang International Symposium (Intl. Symp. on Economy and Commerce for Sustainable Development)
Tue. 18 Nov. 2025 / Room: Benjarong-Phuket	
<u>Session Chairs:</u> Tamara Mandelburger; Santiago Maya; Charles Tang	

14:25: [EconomyTuePM205] OL Keynote

FINDING AND MEASURING THE 11th R: TRANSCENDING THE CIRCULAR TO THE REGENERATIVE ECONOMY

Norman Dytianquin¹; Simon Paindavoine²; Leonard Thoma³

¹Zuyd University of Applied Sciences, Maastricht, Netherlands; ²SKEMA Business School, Lille, France; ³Technical University of Applied Sciences, Wuerzburg-Schweinfurt, Germany

Paper ID: 186

14:45: [EconomyTuePM206] OL Invited

FINANCING PEACE: ENABLING AN ELUSIVE SDG

Norman Dytianquin¹

¹Zuyd University of Applied Sciences, Maastricht, Netherlands

Paper ID: 346

15:05: [EconomyTuePM207] OL Invited

POTENTIAL AND CHALLENGES FOR THE GREEN HYDROGEN ECONOMY IN BRAZIL AND PARAGUAY

Ricardo José Ferracin¹; Elisangela Ferruci Carolino²

¹GH2 Global, Curitiba, Brazil; ²Ferruci&Ferracin Serviços Empresariais, Curitiba, Brazil

Paper ID: 342

15:25: [EconomyTuePM208] OS

AFRICA'S ROLE IN THE CIRCULAR ECONOMY: INNOVATION, INCLUSION, AND IMPACT

Nana Yaw Konadu¹

¹Electro Recycling Ghana Ltd, Accra, Ghana

Paper ID: 347

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:
PharmaceuticalTuePM1-R9

**Tanner International Symposium (2nd
Intl. Symp. on Pharmaceutical Sciences
and Industrial Applications for
Sustainable Development)**

Tue. 18 Nov. 2025 / Room: **Benjarong Main Rest**

Session Chairs: Go Kimura; Assaf Friedler

13:00: [PharmaceuticalTuePM101] OS Plenary

FORMULATION DEVELOPMENT BY SPRAY FREEZE-DRYING TECHNOLOGY IN SHIONOGI

Go Kimura¹; Shuichi Otake¹; Akira Mashimo¹

¹Shionogi & Co., Ltd., Amagasaki, Japan

Paper ID: 30

13:20: [PharmaceuticalTuePM102] OS Plenary

THE ALTRUISTIC COMPONENT OF SUSTAINABILITY: FUNDING OF YOUNG SCIENTISTS – A SUCCESS STORY

Martin Bultmann¹; Eva Roblegg²; Cornelia Sonntag³

¹University of Heidelberg, Heidelberg, Germany; ²Institute of Pharmaceutical Sciences, Pharmaceutical Technology and Biopharmacy, Graz, Austria; ³Galenus Privatstiftung, Wien, Austria

Paper ID: 306

13:40: [PharmaceuticalTuePM103] OL Keynote

HADRONIC MEDICINE: INITIATION OF A QUANTITATIVE REPRESENTATION OF LIFE VIA THE HYPERSTRUCTURAL ENTANGLEMENT OF LIVING ENTITIES

Ruggero Maria Santilli¹; Federico Inglese²; Emanuele Velardo¹; Thomas Vougiouklis³

¹The Institute for Basic Research, Palm Harbor, United States; ²Citozeatec, Peschiera Borromeo, Italy; ³Democritus University of Thrace, Xanthi, Greece

Paper ID: 362

14:00: [PharmaceuticalTuePM104] OS Keynote

INTRINSICALLY DISORDERED PROTEINS AS DRUG TARGETS

Assaf Friedler¹

¹The Hebrew University of Jerusalem, Jerusalem, Israel

Paper ID: 323

14:20 POSTERS - Ballroom Foyer

SESSION:
PharmaceuticalTuePM2-R9

**Tanner International Symposium (2nd
Intl. Symp. on Pharmaceutical Sciences
and Industrial Applications for
Sustainable Development)**

Tue. 18 Nov. 2025 / Room: **Benjarong Main Rest**

Session Chairs: Ang-Yang Yu; Martin Bultmann

14:25: [PharmaceuticalTuePM205] OS

**FROM “PUBLISH OR PERISH” TO “PUBLISH AND PERISH” – YOUNG
SCIENTISTS BEING STRUCK BETWEEN SCIENCE AND FUNDING**

Eva Roblegg¹; Martin Bultmann²

¹Institute of Pharmaceutical Sciences, Pharmaceutical Technology and Biopharmacy,
Graz, Austria; ²University of Heidelberg, Heidelberg, Germany
Paper ID: 307

14:45: [PharmaceuticalTuePM206] OS

**SUSTAINABLE 3D CFD MODELLING – A CONTRADICTION IN TIMES OF
ENERGY-GUZZLING DATA CENTERS? OR: MODELS ON TOP OF MODELS**

Madeleine Witting¹; Yongxiang Li¹; Markus Schuhmacher¹; Candela Romero²; Martin
Bultmann³

¹Abbvie Deutschland GmbH & Co. KG, Ludwigshafen, Germany; ²ETH Zürich Energie-
und Prozesssystemtechnik CLA F 19.3, Zürich, Switzerland; ³University of Heidelberg,
Heidelberg, Germany
Paper ID: 308

15:05: [PharmaceuticalTuePM207] OL Plenary

TREATMENT OF RADIOACTIVE WASTE OF FISSION REACTORS

Hans Leuenberger¹; Angelo Comunetti²

¹University of Florida, Orlando, United States; ²Gempenstrasse 13, CH-4104, Oberwil,
Switzerland
Paper ID: 297

15:25: [PharmaceuticalTuePM208] OS

COMPUTATIONAL PREDICTION OF AN IMPORTANT PROTEIN’S STRUCTURE

Ang-Yang Yu¹

¹Heilongjiang Vocational College of Biology Science and Technology, Heilongjiang,
China
Paper ID: 6

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:
MedicineTuePM3-R9

**4th Intl. Symp. on Technological
Innovations in Medicine for Sustainable
Development**

Tue. 18 Nov. 2025 / Room: **Benjarong Main Rest**

Session Chairs: Paata Kervalishvili; Olga Peryanova

16:05: [MedicineTuePM309] OS Invited

**AN INDIGENOUS MINDFUL DESIGN APPROACH TO PRESERVE CULTURAL
IDENTITY AND SUPPORT ADOLESCENT WELL-BEING**

Huatong Sun¹; Jin Yu²; Junyu Zhao³; Kunru Gu²; Li Li⁴

¹University of Washington Tacoma, Tacoma, United States; ²Guangzhou University of Chinese Medicine, Guangzhou, China; ³Xiguan Guangya Experimental School, Guangzhou, China; ⁴Guangdong Food and Drug Vocational College, Guangzhou, China

Paper ID: 72

16:25: [MedicineTuePM310] OS

**FERROMAGNETIC NANOSYSTEMS IN BIOMEDICINE: APPLICATIONS IN
MAGNETIC HYPERTHERMIA AND MAGNETICALLY ACTIVATED ATP REACTIONS**

Paata Kervalishvili¹

¹Georgian Technical University, Tbilisi, Georgia

Paper ID: 288

16:45: [MedicineTuePM311] OS

USING OF DIODE LASER IN OROFACIAL REGION

Tahrir Aldelaimi¹

¹University of Anbar, Ramadi, Iraq

Paper ID: 182

17:05: [MedicineTuePM312] OS

MODE OF COHERENT DEVELOPMENT OF BIOLOGICAL COMMUNITIES

Olga Peryanova¹; Anatoly Korets²; Aleksandr Ivanenko³; Nikolay Shestakov³;

Alexander Filonov⁴

¹Krasnoyarsk State Medical University, Krasnoyarsk, Russian Federation; ²Institute of Engineering Physics and Radioelectronics, Siberian Federal University, Krasnoyarsk, Russian Federation; ³L.V. Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russian Federation; ⁴Institute of Nonferrous Metals and Materials Science, Siberian Federal University, Krasnoyarsk, Russian Federation

Paper ID: 277

17:25 POSTERS - Ballroom Foyer

19:00 THEME BUFFET DINNER & SHOW - Sky Garden (outdoor)

Wednesday

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION: CompositeWedPM1-R1	Meyers International Symposium (11th Intl. Symp. on Composite, Ceramic & Nano Materials Processing, Characterization & Applications)
Wed. 19 Nov. 2025 / Room: Dusit 1	
<u>Session Chairs:</u> Henry Alonso Colorado Lopera	

13:00: [CompositeWedPM101] OS Keynote

**HIERARCHICAL ARCHITECTURES AND MECHANICAL BEHAVIOR OF
GANODERMA LUCIDUM AND FOMES FOMENTARIUS FOR SUSTAINABLE
BIOINSPIRED MATERIALS**

Haocheng Quan¹

¹Nanjing University, Nanjing, China

Paper ID: 237

13:20: [CompositeWedPM102] OS

**MONTE CARLO SIMULATION OF HYBRID ARAMID-LINEN EPOXY COMPOSITES
REINFORCED WITH GRAPHENE OXIDE FOR RADIOLOGICAL PROTECTION**

Sergio Monteiro¹; Thomaz Jacintho Lopes¹; Douglas Silva¹; Marc Meyers²

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 61

13:40: [CompositeWedPM103] OS

**BALLISTIC PROPERTIES OF NOVEL EPOXY COMPOSITE REINFORCED WITH
ALKALI TREATED SEDGE FIBERS (CYPERUS MALACCENSIS)**

Belayne Zanini Marchi¹; Lucas Neuba¹; Elias Matias Bentes¹; Sarah De Melo¹; Sergio Monteiro¹; Marc Meyers²

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 46

14:00: [CompositeWedPM104] OS

**FLEXURAL STRENGTH OF POLYESTER MATRIX COMPOSITES WITH THE
INCLUSION OF SHORT JUTE AND PIASSAVA FIBERS**

Clarissa De Paula Dias¹; Douglas Silva¹; Marc Meyers²; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 42

14:20 POSTERS - Ballroom Foyer

SESSION: CompositeWedPM2-R1	Meyers International Symposium (11th Intl. Symp. on Composite, Ceramic & Nano Materials Processing, Characterization & Applications)
Wed. 19 Nov. 2025 / Room: Dusit 1	
<u>Session Chairs:</u> Belayne Zanini Marchi	

14:45: [CompositeWedPM206] OS Keynote

DEVELOPMENT OF POLYCARBONATE NANOFIBERS WITH REDUCED GRAPHENE OXIDE FOR THE PRODUCTION OF ELECTROMAGNETIC RADIATION ABSORBING MATERIALS IN VESSELS

Clarissa De Paula Dias¹; Bruno Cunha, Sousa Da¹; Ricardo Pondé Weber¹; Sergio Monteiro¹; Édio Junior¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 50

15:05: [CompositeWedPM207] OS

THERMAL-MINERALOGICAL ANALYSIS OF LATERITIC SOIL AND IRON ORE WASTE MIXTURES FOR THE PRODUCTION OF CALCINED AGGREGATES

Lisley Madeira Coelho¹; Pedro Henrique Poubel Mendonça Da Silveira¹; Ary Machado De Azevedo¹; Belayne Zanini Marchi¹; Sergio Monteiro¹; Antônio Carlos Rodrigues Guimarães, Sr.¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 35

15:25: [CompositeWedPM208] OS

COLD SINTERING PROCESS OF HYDROXYAPATITE CERAMICS WITH ADDITIONS OF GRAPHENE OXIDE

Pedro Henrique Poubel Mendonça Da Silveira¹; Andreza Menezes Lima²; Ary Machado De Azevedo¹; Sergio Monteiro¹; Eduardo Sousa Lima¹; Marcelo Henrique Prado Da Silva¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Instituto Nacional de Tecnologia, Rio de Janeiro, Brazil

Paper ID: 38

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: CompositeWedPM3-R1	Meyers International Symposium (11th Intl. Symp. on Composite, Ceramic & Nano Materials Processing, Characterization & Applications)
Wed. 19 Nov. 2025 / Room: Dusit 1	
<u>Session Chairs:</u> Clarissa De Paula Dias	

16:25: [CompositeWedPM310] OS
NEUTRONIC EVALUATION OF UO₂-ThO₂ MIXED FUEL IN A SINGLE ROD AND FUEL ASSEMBLY CONFIGURATION FOR SMALL MODULAR REACTORS

Sergio Monteiro¹; Thomaz Jacintho Lopes¹
¹Military Institute of Engineering, Rio de Janeiro, Brazil
Paper ID: 67

16:45: [CompositeWedPM311] OS
PRODUCTION AND ANALYSIS OF PERMANENT DEFORMATION OF ARTIFICIAL AGGREGATES FROM CALCINED CLAY CONTAINING MINING WASTE CONTAINING MINING WASTE

Lisley Madeira Coelho¹; Murilo Miguel Narciso, Sr¹; Albeds Mesquita Povuação¹; Ary Machado De Azevedo¹; Pedro Henrique Poubel Mendonça Da Silveira¹; Sergio Monteiro¹; Antônio Carlos Rodrigues Guimarães, Sr.¹
¹Military Institute of Engineering, Rio de Janeiro, Brazil
Paper ID: 36

17:05: [CompositeWedPM312] OS
ANALYSIS OF THE INFLUENCE OF HEAT TREATMENT ON HYDROXYAPATITE EXTRACTED FROM ARAPAIMA FISH SCALES IN PLA/HA COMPOSITES.

Edson Miranda Soares¹; Marcia Cardoso¹; Naylanda Graças Silva Da Silva¹; Alisson Clay Rios Da Silva¹; Sergio Monteiro²; **Verônica Scarpini Candido**³; Marc Meyers⁴
¹Federal University of Pará, Ananindeua, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil; ³Federal University of Pará, Belém, Brazil; ⁴University of California San Diego, La Jolla, United States
Paper ID: 56

17:25 POSTERS - Ballroom Foyer
19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: OxidativeWedPM1-R2	Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)
Wed. 19 Nov. 2025 / Room: Dusit 2	
<u>Session Chairs:</u> Haruhiko Inufusa; Motoki Watanabe	

13:00: [OxidativeWedPM101] OS Plenary
THE EFFECTS OF ISCHEMIA AND REPERFUSION IN THE BRAINSTEM ON SWALLOWING FUNCTION AND OXIDATIVE/ANTIOXIDATIVE STRESS
Yoichiro Sugiyama¹; Yuki Sato¹; Haruhiko Inufusa²; Fuhua Yang²; Davis Joseph^{2, 3}; Shigeru Hirano⁴
¹Saga University, Saga, Japan; ²Gifu University, Gifu, Japan; ³FLOGEN Technologies Inc, Montreal, Canada; ⁴Kyoto Prefectural University of Medicine, Kyoto, Japan
Paper ID: 160

13:20: [OxidativeWedPM102] OS Plenary
THE EFFECTS OF OXIDATIVE STRESS IN ORTHOSTATIC DYSREGULATION
Kentaro Omoya¹; Fuhua Yang¹; Yoshiaki Harakawa¹; Haruhiko Inufusa¹
¹Gifu University, Gifu, Japan
Paper ID: 152

13:40: [OxidativeWedPM103] OS Invited
THE POTENTIAL ROLE OF OXIDATIVE STRESS IN MODULATING AIRWAY DEFENSIVE REFLEXES
Yuki Sato¹; Yoichiro Sugiyama¹; Tomoya Ishida²; Haruhiko Inufusa³; Fuhua Yang³; **Davis Joseph**^{3, 4}; Shigeru Hirano⁵
¹Saga University, Saga, Japan; ²Anti-Oxidant Research Laboratory, Louis Pasteur Center for Medical Research, Kyoto, Japan; ³Gifu University, Gifu, Japan; ⁴FLOGEN Technologies Inc, Montreal, Canada; ⁵Kyoto Prefectural University of Medicine, Kyoto, Japan
Paper ID: 386

14:00: [OxidativeWedPM104] OS Invited
ALLERGIC AND INFLAMMATORY AIRWAY DISEASES: POTENTIAL INFLUENCE OF OXIDATIVE STRESS
Yuki Sato¹; Yoichiro Sugiyama¹; Haruhiko Inufusa²; Fuhua Yang²; Davis Joseph^{2, 3}; Shigeru Hirano⁴
¹Saga University, Saga, Japan; ²Gifu University, Gifu, Japan; ³FLOGEN Technologies Inc, Montreal, Canada; ⁴Kyoto Prefectural University of Medicine, Kyoto, Japan
Paper ID: 158

14:20 POSTERS - Ballroom Foyer

SESSION: OxidativeWedPM2-R2		Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)	
Wed. 19 Nov. 2025 / Room: Dusit 2			
<u>Session Chairs:</u> Shigeru Hirano; Koji Fukui			

14:25: [OxidativeWedPM205] OS Plenary
A POLYPHARMACY-MIMETIC STRATEGY TO TREAT AGING AND NEURODEGENERATIVE DISEASES VIA MITOCHONDRIAL COMPLEX I MODULATION
Sergey Trushin¹; Mark Ostroot¹; Thi Kim Oanh Nguyen¹; Jeffrey Salisbury¹; Eugenia Trushina¹
¹Mayo Clinic, Rochester, United States
Paper ID: 176

14:45: [OxidativeWedPM206] OS Keynote
THE AIRWAY PROTECTIVE REFLEXES AND OXIDATIVE STRESS: POTENTIAL THERAPEUTIC ROLE OF ANTIOXIDANTS.
Yoichiro Sugiyama¹; Yuki Sato¹; Haruhiko Inufusa²; Fuhua Yang²; Davis Joseph^{2, 3}; Shigeru Hirano⁴
¹Saga University, Saga, Japan; ²Gifu University, Gifu, Japan; ³FLOGEN Technologies Inc, Montreal, Canada; ⁴Kyoto Prefectural University of Medicine, Kyoto, Japan
Paper ID: 161

15:05: [OxidativeWedPM207] OS Plenary
INTEGRATED CHEMPROTEOMICS AND CHEMINFORMATICS-DRIVEN CANCER DRUG DISCOVERY IN THE POST-GENOME ERA: FROM NATURAL PRODUCTS TO REPURPOSED DRUGS
Motoki Watanabe¹; Shogen Boku²; Erika Iguchi¹; Kaito Kobayashi³; Tomoshi Kameda³
¹Kyoto Prefectural University of Medicine, Kyoto, Japan; ²Kansai Medical University Hospital, Hirakata, Japan; ³National Institute of Advanced Industrial Science and Technology (AIST), Tokyo, Japan
Paper ID: 325

15:25: [OxidativeWedPM208] OS Invited
THE POTENTIAL INFLUENCE OF ANTIOXIDANT TWENDEE X ON OXIDATIVE AND ANTIOXIDATIVE STRESS FOLLOWING BRAINSTEM ISCHEMIA/REPERFUSION
Yoichiro Sugiyama¹; Yuki Sato¹; Haruhiko Inufusa²; Fuhua Yang²; Davis Joseph^{2, 3}; Shigeru Hirano⁴
¹Saga University, Saga, Japan; ²Gifu University, Gifu, Japan; ³FLOGEN Technologies Inc, Montreal, Canada; ⁴Kyoto Prefectural University of Medicine, Kyoto, Japan
Paper ID: 230

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: OxidativeWedPM3-R2		Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)	
Wed. 19 Nov. 2025 / Room: Dusit 2			
<u>Session Chairs:</u> Kentaro Omoya; Yoichiro Sugiyama			

16:05: [OxidativeWedPM309] OS Plenary
MELATONIN MODULATES MITOCHONDRIAL MATRIX REDOX HOMEOSTASIS
Russel Reiter¹; Ramaswamy Sharma¹
¹UT Health San Antonio, San Antonio, United States
Paper ID: 289

16:25: [OxidativeWedPM310] OS Invited
COMBINATION ANTIOXIDANT SUPPLEMENT, TWENDEE X IMPROVES COGNITIVE AND MOTOR FUNCTION IN MIDDLE-AGED MICE
Koji Fukui¹; Yoshiaki Harakawa²; Fuhua Yang²; Haruhiko Inufusa²
¹Shibaura Institute of Technology, Saitama, Japan; ²Gifu University, Gifu, Japan
Paper ID: 150

16:45: [OxidativeWedPM311] OS Invited
NEUROMUSCULAR REGENERATION AND VOICE FUNCTION RECOVERY AFTER BASIC FIBROBLAST GROWTH FACTOR (bFGF) INJECTIONS INTO PARALYZED MUSCLES IN PATIENTS WITH LARYNGEAL PARESIS
Keiichiro Okano¹; Shigeru Hirano¹
¹Kyoto Prefectural University of Medicine, Kyoto, Japan
Paper ID: 301

17:05: [OxidativeWedPM312] OS Keynote
THE ROLE OF OXIDATIVE STRESS IN KAWASAKI DISEASE AND ITS CLINICAL SIGNIFICANCE
Kentaro Omoya¹; Fuhua Yang¹; Yoshiaki Harakawa¹; Haruhiko Inufusa¹
¹Gifu University, Gifu, Japan
Paper ID: 155

17:25 POSTERS - Ballroom Foyer
19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: MathematicsWedPM1-R3	Kauffman International Symposium (8th Intl. Symp. on Sustainable Mathematics Applications)
Wed. 19 Nov. 2025 / Room: Dusit 3	
<u>Session Chairs:</u> Peter Rowlands	

13:00: [MathematicsWedPM101] OS
KNOTS AND APPLICATIONS – TALK NUMBER 3
Louis Kauffman¹
¹University of Illinois at Chicago, Chicago, United States
Paper ID: 321

13:40: [MathematicsWedPM103] OS
KNOTS AND APPLICATIONS – TALK NUMBER 4

Louis Kauffman¹

¹University of Illinois at Chicago, Chicago, United States
Paper ID: 322

14:20 POSTERS - Ballroom Foyer

SESSION: MathematicsWedPM2-R3	Kauffman International Symposium (8th Intl. Symp. on Sustainable Mathematics Applications)
Wed. 19 Nov. 2025 / Room: Dusit 3	
<u>Session Chairs:</u> Louis Kauffman; Boris Apanasov	

14:25: [MathematicsWedPM205] OL Plenary
**RETRIEVING THE BABY FROM THE BATHWATER: ORIGINAL LIE LINEAR
ALGEBRA RESOLVES STANDARD MODEL AND PERIODIC SYSTEM**
Erik Trell¹

¹Linköping University, Linköping, Sweden
Paper ID: 111

14:45: [MathematicsWedPM206] OS Keynote
**ERGODIC DYNAMICS OF UNIFORM HYPERBOLIC LATTICES ON EVERYWHERE
WILD QUASISYMMETRIC SURFACES, SIAMESE TWINS AND HYPERBOLIC 4-
COBORDISMS**
Boris Apanasov¹

¹University of Oklahoma, Norman, United States
Paper ID: 92

15:05: [MathematicsWedPM207] OL
**UPGRADING THE FATIGUE OF MECHANICAL SYSTEMS SUCH AS
REFRIGERATOR UTILIZING A QUANTUM/TRANSPORTED LIFE-STRESS AND
SAMPLE SIZE MODEL**
Seongwoo Woo¹

¹Technical and Vocational Training Institute (TVTI), Addis Ababa, Ethiopia
Paper ID: 369

15:25: [MathematicsWedPM208] OL
**HOW COME THE QUANTUM? TESTING THE TOPOLOGICAL ORIGIN OF
PLANCK'S QUANTUM OF ACTION**
Louis Kauffman¹; **Christoph Schiller**²

¹University of Illinois at Chicago, Chicago, United States; ²Motion Mountain, Munich, Germany
Paper ID: 349

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:
ModellingMaterialsWedPM3-R3

**3rd Intl Symp. on Modelling, Materials &
Processes Interdisciplinary Symposium
for Sustainable Development**

Wed. 19 Nov. 2025 / Room: **Dusit 3**

Session Chairs: Peter Futas; Georgi Vayssilov

16:05: [ModellingMaterialsWedPM309] OS Keynote

**MULTI-PHYSICS OF GENERALIZED CONTINUUM : APPLICATION TO
COSMOLOGY FOR MODELING THE VACUUM SPACETIME DURING
ACCELERATED EXPANSION OF THE UNIVERSE**

Lalaonirina Rakotomanana¹

¹University of Rennes, Rennes, France

Paper ID: 324

16:25: [ModellingMaterialsWedPM310] OS

**COMPUTATIONAL MODELING OF HYDROXYL GROUPS AND GUEST SPECIES
AND ZEOLITES**

Georgi Vayssilov¹

¹Sofia University "St. Kliment Ohridski", Sofia, Bulgaria

Paper ID: 32

16:45: [ModellingMaterialsWedPM311] OS

**PHOSPHORUS CONTAINING COUMARIN DERIVATES AS POTENTIAL
TEMPLATE FOR THE SYNTHESIS OF ZEOLITES**

Rositca Nikolova¹; Nevena Petkova-Yankova¹; Ana Koleva¹

¹Sofia University "St. Kliment Ohridski", Sofia, Bulgaria

Paper ID: 142

17:05: [ModellingMaterialsWedPM312] OL

**A THEORY OF SPONTANEOUS COLLAPSES INDUCED BY A TIME DEPENDENT
PERTURBATION**

Maria Esther Burgos¹

¹Universidad de Los Andes, Mérida, Venezuela

Paper ID: 242

17:25 POSTERS - Ballroom Foyer

19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:
PolymersWedPM1-R4

**Matyjaszewski International
Symposium (5th Intl. Symp. on Green
Chemistry & Polymers & their
Application for Sustainable
Development)**

Wed. 19 Nov. 2025 / Room: **Sampaguita**

Session Chairs: Rigoberto Castillo Advincula; Yunyan Qiu

13:00: [PolymersWedPM101] OS Keynote

**ULTRA-HIGH TEMPERATURE PRODUCTION OF POLYISOBUTENE IN THE
ABSENCE OF HALOGENATED SOLVENTS**

Stewart P. Lewis¹

¹Innovative Science Corporation, Salem, United States

Paper ID: 259

13:20: [PolymersWedPM102] OS

AI/ML IN ADDITIVE MANUFACTURING AND ADVANCED POLYMER MATERIALS

Rigoberto Castillo Advincula¹

¹University of Tennessee, Knoxville, United States

Paper ID: 370

14:00: [PolymersWedPM104] OL

**WATER: A "GREEN" SOLVENT AND MONOMER FOR SUSTAINABLE
DEVELOPMENT**

Ben Zhong Tang¹

¹The Chinese University of Hong Kong, Shenzhen, China

Paper ID: 371

14:20 POSTERS - Ballroom Foyer

SESSION:
PolymersWedPM2-R4

**Matyjaszewski International
Symposium (5th Intl. Symp. on Green
Chemistry & Polymers & their
Application for Sustainable
Development)**

Wed. 19 Nov. 2025 / Room: **Sampaguita**

Session Chairs: Maude Jimenez; Kento Yamagishi

14:25: [PolymersWedPM205] OL

COMPLETELY PHOTODEGRADABLE PLASTICS

Qiang Yue¹; Fanling Meng¹; Ben Zhong Tang²; **Liang Luo¹**

¹Huazhong University of Science and Technology, Wuhan, China; ²The Chinese University of Hong Kong, Shenzhen, China

Paper ID: 123

14:45: [PolymersWedPM206] OS
**PHOTOCATALYTIC HYDROGEN ATOM TRANSFER: A STRATEGY FOR
CONTROLLED POLYMER DEGRADATION, DEPOLYMERIZATION, AND
FUNCTIONALIZATION**

Cyrille Boyer¹

¹UNSW, Sydney, Australia

Paper ID: 80

15:05: [PolymersWedPM207] OS Keynote
**ENERGY STORAGE WITH MULTI-LOGIC CIRCUITRY GATED BY POLAR-
DIPOLAR INTERACTIONS IN SELF-HEALABLE SUSTAINABLE COPOLYMERS**

Marek Urban¹

¹Clemson University, Clemson, United States

Paper ID: 334

15:25: [PolymersWedPM208] OS
OXYGEN IN CONTROLLED RADICAL POLYMERIZATION
Xiangcheng Pan¹

¹Fudan University, Shanghai, China

Paper ID: 88

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:
PolymersWedPM3-R4

**Matyjaszewski International
Symposium (5th Intl. Symp. on Green
Chemistry & Polymers & their
Application for Sustainable
Development)**

Wed. 19 Nov. 2025 / Room: **Sampaguita**

Session Chairs: Sophiko Kvinikadze; Takeo Suga

16:05: [PolymersWedPM309] OS
POLYMER COMPOSITES CONSTRUCT UNDER THIN FILM FORMATION
Youhong Tang¹

¹Flinders University, Tonsley, Australia

Paper ID: 94

16:25: [PolymersWedPM310] OS
**RECYCLABLE POLYESTERS FROM ALDEHYDES (ACETALS) WITH CYCLIC
ANHYDRIDES**

Xinghong Zhang, Sr.¹

¹Zhejiang University, Hangzhou, China

Paper ID: 102

16:45: [PolymersWedPM311] OS

DOZN™3.0 - A QUANTITATIVE GREEN CHEMISTRY EVALUATOR FOR SUSTAINABLE FUTURE

Ettigounder (Samy) Ponnusamy¹

¹MilliporeSigma, St. Louis, United States

Paper ID: 19

17:05: [PolymersWedPM312] OS

DUAL-RESPONSIVE NANOPATTERNED INTERFACES BASED ON BINARY POLYMER ARCHITECTURES

Jin Ge¹; Rigoberto Castillo Advincula²

¹Xi'an JiaoTong University, Xi'an, China; ²University of Tennessee, Knoxville, United States

Paper ID: 84

17:25 POSTERS - Ballroom Foyer

19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:

MineralWedPM1-R5

11th Intl. Symp. on Sustainable Mineral Processing

Wed. 19 Nov. 2025 / Room: **Orchid**

Session Chairs: Alexander Brodt; Eduardo Magdaluyo, Jr

13:00: [MineralWedPM101] OS Keynote

DEVELOPMENT OF ENERGY SAVING PROCESSES IN THE TUNGSTEN INDUSTRY, GENTLE TO THE ENVIRONMENT

Alexander Brodt¹; Ran Maimon²

¹Metal-Tech, Tel Aviv, Israel; ²Metal-Tech, Neot Hovav, Israel

Paper ID: 241

13:20: [MineralWedPM102] OS

3D PRINTABILITY ASSESSMENT OF COPPER MINE TAILINGS-SILT HYBRID GEOPOLYMER-CEMENT MORTAR VIA TAGUCHI DESIGN

Anton Justo Ventura¹; Mark Jefferson Plata¹; Karlo Leandro Baladad¹; **Eduardo Magdaluyo, Jr¹**

¹University of the Philippines Diliman, Quezon City, Philippines

Paper ID: 223

13:40: [MineralWedPM103] OS
PHYSICOCHEMICAL, MECHANICAL AND LEACHING CHARACTERISTICS OF HYBRID GEOPOLYMER-CEMENT MORTAR INCORPORATING COPPER MINE TAILINGS AND SILT

Dionella Jitka Quinagoran¹; James Albert Narvaez¹; Joy Marisol Maniaul¹; John Kenneth Cruz¹; Djoan Kate Tungpalan¹; **Eduardo Magdaluyo, Jr¹**; Karlo Leandro Baladad¹

¹University of the Philippines Diliman, Quezon City, Philippines
Paper ID: 231

14:00: [MineralWedPM104] OS
IRON OBTANTION FROM TAILINGS THROUGH GRAVIMETRIC SEPARATION METHODS

Igor Diniz¹; Amanda Mendes, Sra¹; Luciana Mascarenhas¹; Leonardo Granato¹; Vinícius Park²; Wilson José Guerra³; Paulo Assis¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil; ²Ouro Preto, Brazil; ³Gorceix Foundation, Ouro Preto, Brazil
Paper ID: 156

14:20 POSTERS - Ballroom Foyer

SESSION:	11th Intl. Symp. on Sustainable Mineral Processing
MineralWedPM2-R5	
Wed. 19 Nov. 2025 / Room: Orchid	
<u>Session Chairs:</u> Igor Diniz; Anh V. Nguyen	

14:25: [MineralWedPM205] OS
INSIGHTS INTO HYDRODYNAMIC CAVITATION FOR IMPROVING FLOTATION PERFORMANCE

Juan Inocencio Pascual¹; Anh V. Nguyen¹

¹The University of Queensland, Brisbane, Australia
Paper ID: 209

14:45: [MineralWedPM206] OS
PROBLEMS AND ADVANCES IN SUSTAINABILITY IN SMALL-SCALE MINING IN THE MUNICIPALITY OF PICUÍ, PARAÍBA, BRAZIL

Francisco Souza Assis¹; Dwight Rodrigues Soares¹; Alinne Araújo, Alinne²; Lazaro Farias¹

¹Federal Institute of Paraiba, Campina Grande, Brazil; ²UEPB, Campina Grande, Brazil
Paper ID: 212

15:05: [MineralWedPM207] OS Keynote
SUSTAINABLE RECOVERY OF CRITICAL RARE EARTH ELEMENTS FROM GEM MINING WASTE: A MODEL FOR CIRCULAR ECONOMY IN MINERAL PROCESSING
Nimila Dushyantha¹
¹Uva Wellassa University, Badulla, Sri Lanka
Paper ID: 120

15:25: [MineralWedPM208] OS
UTILIZATION OF MINING WASTE IN THE PRODUCTION OF SUSTAINABLE CONSTRUCTION MATERIALS
Igor Diniz¹; Amanda Mendes, Sra¹; Luciana Mascarenhas¹; Leonardo Granato¹; Vinícius Park²; Wilson José Guerra³; Paulo Assis¹
¹Federal University of Ouro Preto, Ouro Preto, Brazil; ²Ouro Preto, Brazil; ³Gorceix Foundation, Ouro Preto, Brazil
Paper ID: 153

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:	10th Intl. Symp. on Sustainable Mining Operations
MiningWedPM3-R5	
Wed. 19 Nov. 2025 / Room: Orchid	
Session Chairs: Abdollah Esmaeili; Francisco Souza Assis	

16:05: [MiningWedPM309] OS
NÚCLEO DE ESTUDOS DE PEGMATITOS (N-PEG): CONTRIBUTION TO THE STUDY OF GRANITIC PEGMATITES IN BRAZIL
Francisco Souza Assis¹; Dwight Rodrigues Soares¹; Wandenber Lima Colaço¹; Josenildo Isidro²; Alinne Araújo, Alinne³
¹Federal Institute of Paraíba, Campina Grande, Brazil; ²Universidade Federal do Ceará-UFC, Crateus, Brazil; ³UEPB, Campina Grande, Brazil
Paper ID: 166

16:25: [MiningWedPM310] OS
CONTRIBUTION TO THE STUDY OF BENTONITE MINERALIZATIONS TYPE CAMPOS NOVOS, MUNICIPALITY OF OLIVEDOS, STATE OF PARAIBA, BRAZIL
Francisco Souza Assis¹; Dwight Rodrigues Soares¹; Wandenber Lima Colaço¹; Lazaro Farias¹
¹Federal Institute of Paraíba, Campina Grande, Brazil
Paper ID: 167

16:45: [MiningWedPM311] OS
STRATIGRAPHY AND ITS APPLICATIONS IN PETROLEUM INDUSTRY
Laura Garzon¹; Abdollah Esmaeili¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 205

17:05: [MiningWedPM312] OS

STUDY OF BENTONITES FROM THE CAMPO NOVO MINE IN THE MUNICIPALITY OF SOSSEGO, PARAIBA, BRAZIL

George Ribeiro Nascimento¹; **Francisco Souza Assis**²; Andriê Antunes²

¹Federal University of Campina Grande, Campina Grande, Brazil; ²Federal Institute of Paraiba, Campina Grande, Brazil

Paper ID: 336

17:25 POSTERS - Ballroom Foyer

19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

9th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development	
SESSION: AdvancedMaterialsWedPM1-R6	
Wed. 19 Nov. 2025 / Room: Jasmin	
<u>Session Chairs:</u> David Scheiblehner; Carla Vilela	

13:00: [AdvancedMaterialsWedPM101] OS

THERMODYNAMIC MODEL OF THE INFLUENCE OF TEMPERATURE AND BORON ON THE PRODUCTION OF HIGH ENTROPY ALLOY OF THE SYSTEM FeNiCrCuSiC

Farida Kapsalamova¹

¹Kazakh-British Technical University, Almaty, Kazakhstan

Paper ID: 284

13:20: [AdvancedMaterialsWedPM102] OS Invited

ABLATION STABILITY AND MECHANICAL CHARACTERISTICS OF HfB₂-SiC ULTRAHIGHTEMPERATURE COMPOSITES

Tetiana Prikhna¹; Pavlo Barvitskiy¹; Hakan Ünsal²; **Fernand D. S. Marquis**³; Myroslav Karpets¹; Viktor Moshchil¹; Michal Hičák²; Peter Tatarko²; Anastasia Lokatkina¹; Viktor Bilorusets¹; Semyon Ponomarov⁴; Leonid Devín⁵; Sergiy Rychev¹; Olena Prysiashna¹; Anatoliy Marchenko¹

¹V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; ²Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia; ³United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States; ⁴Institute of Semiconductor Physics, Kyiv, Ukraine; ⁵V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kiev, Ukraine

Paper ID: 381

13:40: [AdvancedMaterialsWedPM103] OS Plenary
ENGINEERING AT THE NANOSCALE: A STRATEGY FOR DEVELOPING HIGH PERFORMANCE FUNCTIONAL MATERIALS FROM BIOPOLYMERS

Sabu Thomas¹

¹Mahatma Gandhi University, Kerala, India

Paper ID: 22

14:00: [AdvancedMaterialsWedPM104] OS Invited
HIGH PRESSURE-HIGH TEMPERATURE OXYGENATION OF SUPERCONDUCTING COATED CONDUCTORS AND THIN FILMS

Tetiana Prikhna¹; Roxana Vlad²; Aiswarya Kethamkuzhi²; Robert Kluge³; Bernd Büchner³; Myroslav Karpets¹; Semyon Ponomarov⁴; Viktor Moshchil¹; Xavier Obradors²; Teresa Puig²

¹V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; ²Institut de Ciència de Materials de Barcelona, CSIC, Bellaterra, Spain; ³Leibniz Institute for Solid State and Materials Research, Dresden, Germany;

⁴Institute of Semiconductor Physics, Kyiv, Ukraine

Paper ID: 239

14:20 POSTERS - Ballroom Foyer

SESSION: AdvancedMaterialsWedPM2-R6		9th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development	
Wed. 19 Nov. 2025 / Room: Jasmin			
<u>Session Chairs:</u> Meng-Hsin Chen; Jui-Cho Yang			

14:25: [AdvancedMaterialsWedPM205] OS Plenary
ADVANCED MATERIALS FOR ENERGY STORAGE AND CONVERSION APPLICATIONS

Ahsan Ul Haq Qurashi¹

¹Khalifa University, Abu Dhabi, United Arab Emirates

Paper ID: 392

14:45: [AdvancedMaterialsWedPM206] OS Invited
INFLUENCE OF METALLIC HF ON THE FORMATION OF BL GROUP SUPERHARD CERAMICS IN THE cBN-HfC SYSTEM UNDER HPHT SINTERING CONDITIONS

Tetiana Prikhna¹; Volodymyr Turkevych¹; Denys Stratiychuk¹; Yaroslav Romanenko¹; Sergii Starik¹; **Fernand D. S. Marquis²**

¹V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; ²United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States

Paper ID: 85

15:05: [AdvancedMaterialsWedPM207] OS Keynote
AN INVESTIGATION OF PROGRESSIVE INTERNAL EROSION OF GAP-GRADED GRANULAR SOILS USING X-RAY MICRO COMPUTED TOMOGRAPHY

Jianfeng Wang¹
¹City University of Hong Kong, Hong Kong
Paper ID: 93

15:25: [AdvancedMaterialsWedPM208] OS Invited
MECHANICAL PROPERTIES OF COMPOSITE DIELECTRIC MATERIALS AIN-C-ZrB2 AND AIN-C-TiN

Tetiana Serbeniuk¹; **Tetiana Prikhna¹**; Vladimir Sverdun¹; Viktor Moshchil¹; Myroslav Karpets¹; **Fernand D. S. Marquis²**
¹V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; ²United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States
Paper ID: 119

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: ManufacturingWedPM3-R6	6th Intl. Symp. on Advanced Manufacturing for Sustainable Development
Wed. 19 Nov. 2025 / Room: Jasmin	
Session Chairs: Victor Martinez-Pacheco; Donya Ramimoghadam	

16:05: [ManufacturingWedPM309] OS Keynote
RECYCLABLE-BY-DESIGN POLYURETHANE POLYMER FOR SUSTAINABLE COATING

Donya Ramimoghadam¹
¹Manufacturing, Clayton, Australia
Paper ID: 287

16:25: [ManufacturingWedPM310] OL Plenary
ADDITIVE MANUFACTURED ARCHITECTURED LATTICE METAMATERIALS FOR MULTIFUNCTIONAL APPLICATIONS

Raj Das¹; Haozhang Zhong²; Ma Qian¹; Jianfeng Gu²
¹RMIT University, Melbourne, Australia; ²Shanghai Jiao Tong University, Shanghai, China
Paper ID: 295

16:45: [ManufacturingWedPM311] OS
TRIBOLOGICAL THIN FILM COATINGS PRODUCE BY HYBRID PVD TECHNOLOGY TO MINIMIZING ENERGY CONSUMPTION AND ENVIRONMENTAL FOOTPRINT

Pierre Collignon¹
¹PD2-I, Paris, France
Paper ID: 29

17:05: [ManufacturingWedPM312] OS
THE ROLE OF 3D CONCRETE PRINTING IN THE DIGITAL TRANSFORMATION OF CONSTRUCTION AND CLIMATE CHANGE MITIGATION

Victor Martinez-Pacheco¹
¹Cementos La Cruz, Abanilla, Murcia, Spain
Paper ID: 82

17:25 POSTERS - Ballroom Foyer
19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: IronWedPM1-R7 Wed. 19 Nov. 2025 / Room: Lotus <u>Session Chairs:</u> Andrey Dmitriev; Tateo Usui	11th Intl. Symp. on Advanced Sustainable Iron & Steel Making
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13:00: [IronWedPM101] OS Plenary
FUNDAMENTAL STUDIES ON SELECTIVE REMOVAL METHODS OF HYDROGEN FROM GAS CARBURIZATION FURNACE OF SOLID STEEL AND COKE OVEN GAS IN IRON- AND STEEL-MAKING PLANT

Tateo Usui¹; Tomoyuki Mizukoshi²; Yujiro Yokoyama³; Hideaki Hoshino³; Itsuo Ishigami⁴; Hirokazu Konishi⁵
¹Osaka University, Ibaraki, Japan; ²Seibu Metal Heat Treatment Industry Cooperative Association, Osaka, Japan; ³Izumi Center, Osaka Research Institute of Industrial Science and Technology, Izumi, Japan; ⁴Osaka Prefecture Federation of Small Business Associations, Osaka, Japan; ⁵National Institute of Technology (KOSEN), Suzuka College, Suzuka, Japan
Paper ID: 229

13:20: [IronWedPM102] OS Keynote
REDUCTION RATE ENHANCEMENT OF CARBON COMPOSITE IRON OXIDE PELLETS BY USING SEMI-CHAR OR SEMI-CHARCOAL

Tateo Usui¹; Hirokazu Konishi²; Kazuhira Ichikawa³; Hideki Ono⁴; Hirotoshi Kawabata⁵; Paulo Assis⁶
¹Osaka University, Ibaraki, Japan; ²National Institute of Technology (KOSEN), Suzuka College, Suzuka, Japan; ³JFE Steel Corporation, Fukuyama, Japan; ⁴University of Toyama, Toyama, Japan; ⁵Osaka University, Suita, Japan; ⁶Federal University of Ouro Preto, Ouro Preto, Brazil
Paper ID: 293

13:40: [IronWedPM103] OS Keynote

EFFECT OF INHIBITORS ON THE STRUCTURE AND MAGNETIC PROPERTIES OF NANOCRYSTALLINE MAGNETICALLY SOFT IRON-BASED ALLOYS

Vladimir Tsepelev¹; Yuri Starodubtsev²; Kai-Ming Wu³; Nadezhda Tsepeleva¹

¹Boris Yeltsin Ural Federal University, Ekaterinburg, Russian Federation; ²Gammamet Research & Production Enterprise, Ekaterinburg, Russian Federation; ³Wuhan University of Science and Technology, Wuhan, China

Paper ID: 90

14:00: [IronWedPM104] OS

ENHANCING IRON ORE SINTERING THROUGH HOT WATER-ASSISTED GRANULATION

Dhanraj Patil¹

¹JSW Steel Pvt. Ltd., Toranagallu, India

Paper ID: 77

14:20 POSTERS - Ballroom Foyer

SESSION: IronWedPM2-R7 Wed. 19 Nov. 2025 / Room: Lotus <u>Session Chairs:</u> Vladimir Tsepelev; Dhanraj Patil	11th Intl. Symp. on Advanced Sustainable Iron & Steel Making
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14:25: [IronWedPM205] OL Plenary

MATHEMATICAL MODEL OF THE BLAST FURNACE HEARTH CONDITION BASED ON THE THERMOCOUPLE DATA IN THE REFRIGERATOR BELTS

Andrey Dmitriev¹; Dmitry Vitkin²; Maxim Zolotykh¹; Galina Vitkina¹

¹Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russian Federation; ²JSC Kalugin, Ekaterinburg, Russian Federation
Paper ID: 9

14:45: [IronWedPM206] OL

MATHEMATICAL MODEL OF THE BLAST FURNACE THERMAL STATE BASED ON THE THERMOCOUPLE DATA IN THE HEARTH

Andrey Dmitriev¹; Maxim Zolotykh¹; Galina Vitkina¹

¹Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russian Federation
Paper ID: 28

15:05: [IronWedPM207] OS

ENHANCEMENT OF IRON ORE SINTERING THROUGH COAL GAS INJECTION

Dhanraj Patil¹

¹JSW Steel Pvt. Ltd., Toranagallu, India

Paper ID: 76

15:25: [IronWedPM208] OS

ANALYSIS OF EXISTING STANDARDS AND DEFINITIONS FOR GREENER STEEL

Luiz Leite¹; Paulo Assis¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 253

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: NonferrousWedPM3-R7	11th Intl. Symp. on Sustainable Non-ferrous Smelting & Hydro/Electrochemical Processing
Wed. 19 Nov. 2025 / Room: Lotus	
<u>Session Chairs:</u> Stefan Steinlechner; Thomas Wolfgang Howard; Maral Dyussebekova	

16:05: [NonferrousWedPM309] OS Keynote

INVESTIGATIONS INTO THE RECYCLABILITY OF MAGNESIA-CHROMIUM REFRACTORIES FROM THE COPPER AND NICKEL INDUSTRIES

Stefan Steinlechner¹; Wolfgang Premm¹

¹Montanuniversität Leoben, Leoben, Austria

Paper ID: 33

16:25: [NonferrousWedPM310] OS Invited

EVALUATION OF THE PRECIPITATION BEHAVIOUR AND THE CHARACTERISTICS OF THE GAINED PRODUCT FROM STAINLESS STEEL DUST LEACHATE AS A POTENTIAL USAGE FOR FERRO-ALLOY INDUSTRY

Thomas Wolfgang Howard¹; **Stefan Steinlechner**²

¹Christian Doppler Laboratory for Selective Recovery of Minor Metals in Innovative Process Concepts, Leoben, Austria; ²Montanuniversität Leoben, Leoben, Austria

Paper ID: 235

16:45: [NonferrousWedPM311] OS Plenary

COMPLEX PROCESSING OF A TITANIUM MAGNETITE CONCENTRATE

Dosmurat Aitkulov¹; Madali Naimanbayev¹

¹National Center for Integrated Processing of Mineral Raw Materials, Almaty, Kazakhstan

Paper ID: 183

17:05: [NonferrousWedPM312] OS Keynote

GOLD AND RHENIUM ION DISTRIBUTION ON THE SURFACE OF DIFFERENT CARBON SORBENTS

Svetlana Yefremova¹; Askhat Kablanbekov²; Feruza Berdikulova¹; Bulat Sukurov³

¹National Center on Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan, Almaty, Kazakhstan; ²Kazakh-British Technical University, Almaty, Kazakhstan; ³Institute of Metallurgy and Ore Beneficiation JCS, Almaty, Kazakhstan

Paper ID: 302

17:25 POSTERS - Ballroom Foyer

19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:

MoltenWedPM1-R8

**11th Intl. Symp. on Sustainable Molten
Salt, Ionic & Glass-forming Liquids &
Powdered Materials**

Wed. 19 Nov. 2025 / Room: **Benjarong-Phuket**

Session Chairs: Jaroslaw Milewski; Yuzhen Chen; Ye Li

13:00: [MoltenWedPM101] OS Invited

CO₂ CAPTURE CAPACITY ENHANCED BY INCORPORATION OF TASK SPECIFIC IONIC LIQUID INTO ZIF-8

Amr Henni¹

¹University of Regina, Regina, Canada

Paper ID: 318

13:20: [MoltenWedPM102] OS

CONTROLLED MULTIVALENT-STATE VANADIUM ELECTROLYSIS VIA A NITROGEN-DOPED CONSUMABLE ANODE

Yuzhen Chen¹; Shaolong Li¹; Jianxun Song¹

¹Zhengzhou University, Henan, China

Paper ID: 133

13:40: [MoltenWedPM103] OS

ELECTROCHEMICAL EXTRACTION OF TANTALUM FROM TaCxOy SOLID SOLUTION UNDER FLUORIDE ION REGULATION

Ye Li¹; Zepeng Lv¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 139

14:00: [MoltenWedPM104] OS Keynote

CONCEPT OF A SOLID OXIDE ELECTROLYSIS-MOLTEN CARBONATE FUEL CELL HYBRID SYSTEM TO SUPPORT A POWER-TO-GAS INSTALLATION

Jaroslaw Milewski¹

¹Warsaw University of Technology, Warsaw, Poland

Paper ID: 25

14:20 POSTERS - Ballroom Foyer

SESSION: EnergyWedPM2-R8	10th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation
Wed. 19 Nov. 2025 / Room: Benjarong-Phuket	
<u>Session Chairs:</u> Abdollah Esmaeili; Davide Rossi; Anuor Ayoub	

14:25: [EnergyWedPM205] OS

IMPACT OF RAINFALL ON RADIONUCLIDE DISPERSION AND RADIOLOGICAL RISK IN FRESHWATER SYSTEMS NEAR NUCLEAR FACILITIES

Anuor Ayoub¹

¹Red Sea University, Portsudan, Sudan

Paper ID: 276

14:45: [EnergyWedPM206] OS Invited

RECONSTRUCTION OF MULTIDIMENSIONAL DATA ON INTELLIGENT TECHNOLOGY AND ARTIFICIAL INTELLIGENCE

Dariusz Jacek Jakóbczak¹

¹Koszalin University of Technology, Koszalin, Poland

Paper ID: 358

15:05: [EnergyWedPM207] OS Keynote

THE ROLE OF GEOLOGICAL FAULTS IN OIL AND GAS RESERVOIRS

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 188

15:25: [EnergyWedPM208] OS Invited

THE ROLE OF GEOLOGICAL FOLDS IN OIL AND GAS RESERVOIRS

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 189

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: EnergyWedPM3-R8	10th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation
Wed. 19 Nov. 2025 / Room: Benjarong-Phuket	
<u>Session Chairs:</u> Hyun Joon Chung	

16:05: [EnergyWedPM309] OS
DETERMINING THE BOUNDARY OF A GEOLOGICAL FORMATION IN A SEDIMENTARY BASIN

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 190

16:25: [EnergyWedPM310] OS
PARAMETERS AFFECTING THE STRUCTURE OF A GEOLOGICAL FORMATION

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 191

16:45: [EnergyWedPM311] OS
FORMATION DAMAGE IN A GEOLOGICAL FORMATION

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 192

17:05: [EnergyWedPM312] OS
PRESSURE OF A GEOLOGICAL FORMATION

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 193

17:25 POSTERS - Ballroom Foyer
19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION:	International Symposium on
BiotechnologyWedPM1-R9	Biotechnology for Nutrition, Health and Sustainability
Wed. 19 Nov. 2025 / Room: Benjarong Main Rest	
<u>Session Chairs:</u> Gabriela Araujo Gois; Dario Caro	

13:20: [BiotechnologyWedPM102] OS Keynote
THE UNSUSTAINABILITY OF FOOD SYSTEMS: CHALLENGES AND SOLUTIONS FOR A GROWING POPULATION
Dario Caro¹

¹University of Siena, Siena, Italy
Paper ID: 95

13:40: [BiotechnologyWedPM103] OS Keynote
EXPANDING THE PROTEASOME PARADIGM: UNCOVERING THE INDEPENDENT ROLES OF THE 20S CORE COMPLEX
Michal Sharon¹
¹Weizmann Institute of Science, Rehovot, Israel
Paper ID: 96

14:00: [BiotechnologyWedPM104] OS
A SYSTEMS-BASED APPROACH TO PRECISION HEALTH: INTEGRATING PARTITIONED POLYGENIC RISK SCORES AND LIFESTYLE FACTORS THROUGH THE ONEHEALTH KNOWLEDGE BASE
Jim Kaput¹
¹Vydiant, Inc., Greater Sacramento, United States
Paper ID: 170

14:20 POSTERS - Ballroom Foyer

SESSION: MedicineWedPM2-R9	4th Intl. Symp. on Technological Innovations in Medicine for Sustainable Development
Wed. 19 Nov. 2025 / Room: Benjarong Main Rest	
<u>Session Chairs:</u> Jin Yu; Li Li; Tahrir Aldelaimi	

14:25: [MedicineWedPM205] OS
CANCER HAS A CURE
Huang Wei Ling¹
¹Wu Wei Clinic, Franca, Brazil
Paper ID: 291

14:45: [MedicineWedPM206] OS
GEOLOGICAL ENVIRONMENT OF LITHIUM AND ITS USE AS A THERAPEUTIC AGENT IN PSYCHIATRY
Francisco Souza Assis¹; Dwight Rodrigues Soares¹; Lazaro Farias¹; Andriê Antunes¹
¹Federal Institute of Paraiba, Campina Grande, Brazil
Paper ID: 222

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: NanotechnologyWedPM3-R9	4th Intl Symp. on Nanotechnology for Sustainable Development
Wed. 19 Nov. 2025 / Room: Benjarong Main Rest	
<u>Session Chairs:</u> Vin-Cent Su; Aizhan Rakhmanova; Yu-Sheng Tai	

16:05: [NanotechnologyWedPM309] OS Invited

PERFECT VORTEX BEAM MODULATION AND OPTICAL ERASURE VIA FLAT METASURFACES

Yu-Chia Chang¹; Vin-Cent Su¹

¹National United University, Miaoli, Taiwan

Paper ID: 233

16:25: [NanotechnologyWedPM310] OS Invited

INVESTIGATION OF RF PERFORMANCE OF KU-BAND AlGaIn/GaN HEMTs ON SiC META-SUBSTRATES

Yu-Sheng Tai¹; Meng-Hsin Chen¹

¹National United University, Miaoli, Taiwan

Paper ID: 311

16:45: [NanotechnologyWedPM311] OS

DESIGN AND ASSEMBLY OF BIMETALLIC OXIDE NANOPARTICLES FOR CARBON NANOTUBE SYNTHESIS

Noe Alvarez¹

¹University of Cincinnati, Cincinnati, United States

Paper ID: 251

17:05: [NanotechnologyWedPM312] OS

USE OF NANOPARTICLES IN SURFACTANT-GAS FLOODING PROCESS TO INCREASE OIL RECOVERY FROM AN OIL RESERVOIR

Abdollah Esmaili¹; Afonso Cesar Rodrigues Nogueira¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 203

17:25 POSTERS - Ballroom Foyer

19:00 GALA DINNER/AWARDS CEREMONY/SHOW - Dusit Ballroom

Thursday

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION: CompositeThuPM1-R1	Meyers International Symposium (11th Intl. Symp. on Composite, Ceramic & Nano Materials Processing, Characterization & Applications)
Thu. 20 Nov. 2025 / Room: Dusit 1	
Session Chairs: Lisley Madeira Coelho	

13:00: [CompositeThuPM101] OS
**NEUTRONIC AND THERMAL PERFORMANCE ASSESSMENT OF A FUEL ROD IN
SMR-TYPE REACTORS: A COMPARATIVE STUDY OF ZIRCALOY-4 AND
STAINLESS STEEL CLADDING**

Sergio Monteiro¹; **Thomaz Jacintho Lopes**¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 65

13:20: [CompositeThuPM102] OS
**FEASIBILITY OF COLD SINTERING PROCESSING OF PURE NIOBIUM FOR
ADVANCED APPLICATIONS**

Pedro Henrique Poubel Mendonça Da Silveira¹; Ary Machado De Azevedo¹; Derick
Horrana Souza Trindade¹; Plínio Honorato Muella Peixoto¹; Marllon Fraga Silva¹; Lisley
Madeira Coelho¹; Sergio Monteiro¹; Marcelo Henrique Prado Da Silva¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 53

13:40: [CompositeThuPM103] OS
SUSTAINABLE PRACTICES IN THE BRAZILIAN STEEL INDUSTRY

Gislaine Soares Araujo¹; Paulo Assis²; **Braian Araujo**¹

¹Federal University of Ouro Preto, Mariana, Brazil; ²Federal University of Ouro Preto,
Ouro Preto, Brazil

Paper ID: 144

14:00: [CompositeThuPM104] OS
**CHARACTERIZATION OF CALCIUM PHOSPHATE OBTAINED FROM CHICKEN
EGG SHELL BY THE WET WAY METHOD**

Damares Da Cruz Barbosa Nascimento¹; **Verônica Scarpini Candido**²; Marc Meyers³;
Alisson Clay Rios Da Silva⁴; Sergio Monteiro⁵

¹Federal University of Pará, Rio de Janeiro, Brazil; ²Federal University of Pará, Belém,
Brazil; ³University of California San Diego, La Jolla, United States; ⁴Federal University
of Pará, Ananindeua, Brazil; ⁵Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 68

14:20 POSTERS - Ballroom Foyer

SESSION: CompositeThuPM2-R1	Meyers International Symposium (11th Intl. Symp. on Composite, Ceramic & Nano Materials Processing, Characterization & Applications)
Thu. 20 Nov. 2025 / Room: Dusit 1	
<u>Session Chairs:</u> Verônica Scarpini Candido	

14:25: [CompositeThuPM205] OS

RICE HUSK VALORIZATION VIA COMPOSITE MATERIALS

Henry Alonso Colorado Lopera¹; **Sergio Monteiro**²; **Marc Meyers**³

¹Universidad de Antioquia, Medellín, Colombia; ²Military Institute of Engineering, Rio de Janeiro, Brazil; ³University of California San Diego, La Jolla, United States
Paper ID: 103

14:45: [CompositeThuPM206] OS

**THEORETICAL ANALYSIS OF THE KINETICS OF COAL PARTICLE
AGGLOMERATION THROUGH COMPUTATIONAL MATHEMATICAL MODELS FOR
COKE PRODUCTION**

Dimas Coura¹; **Vinicius Magalhães**²; **Denilson Gomes**³; **Paulo Assis**²

¹IFMG Campus Ouro, Branco, Conselheiro Lafaiete, Brazil; ²Federal University of Ouro Preto, Ouro Preto, Brazil; ³UNIFASAR - Centro Universitário Santa Rita, Conselheiro Lafaiete, Brazil
Paper ID: 172

15:05: [CompositeThuPM207] OS

**PROPOSAL AND EVALUATION OF A ZIRCALOY-4/SiC COMPOSITE
ENCAPSULATION FOR UO₂ FUEL PELLETS: A COMPARATIVE ANALYSIS WITH
METALLIC AND CERAMIC ALTERNATIVES**

Sergio Monteiro¹; **Thomaz Jacintho Lopes**¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil
Paper ID: 66

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: AgroforestryThuPM3-R1	2nd International Symposium on Agroforestry for Sustainable Development
Thu. 20 Nov. 2025 / Room: Dusit 1	
<u>Session Chairs:</u> Amita Sharma; Francis Dube	

16:05: [AgroforestryThuPM309] OL
CARBON SEQUESTRATION AND FLUXES IN PINUS-BASED SILVOPASTORAL SYSTEMS, PLANTATIONS AND PASTURES ON VOLCANIC SOIL IN PATAGONIA
Francis Dube¹; Sergio Radic-Schilling²; Naresh Thevathasan³; Andrew Gordon³
¹University of Concepcion, Concepcion, Chile; ²University of Magallanes, Punta Arenas, Chile; ³University of Guelph, Guelph, Canada
Paper ID: 328

16:25: [AgroforestryThuPM310] OS
AGROFORESTRY SYSTEMS FOR FOOD SECURITY AND CARBON SEQUESTRATION: CONSEQUENCES FOR REDUCING CLIMATE CHANGE
Amita Sharma¹
¹Rajmata Vijayaraje Scindia Krishi Viswavidyalaya, Gwalior, India
Paper ID: 279

17:25 POSTERS - Ballroom Foyer
19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: OxidativeThuPM1-R2		Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)	
Thu. 20 Nov. 2025 / Room: Dusit 2			
<u>Session Chairs:</u> Yuki Sato; Keiichiro Okano			

13:00: [OxidativeThuPM101] OS Plenary
OXIDATIVE STRESS AND HEAT SHOCK PROTEIN
Haruhiko Inufusa¹; Fuhua Yang¹; Yoshiaki Harakawa¹; Shigeru Hirano²; Yoichiro Sugiyama³; Yuki Sato³; Koji Fukui⁴; Kentaro Omoya¹
¹Gifu University, Gifu, Japan; ²Kyoto Prefectural University of Medicine, Kyoto, Japan; ³Saga University, Saga, Japan; ⁴Shibaura Institute of Technology, Saitama, Japan
Paper ID: 254

13:20: [OxidativeThuPM102] OS Keynote
THE POTENTIAL EFFECTS OF ANTIOXIDANT SUPPLEMENTS ON MALE INFERTILITY
Fuhua Yang¹; Yoshiaki Harakawa¹; Kentaro Omoya¹; Haruhiko Inufusa¹
¹Gifu University, Gifu, Japan
Paper ID: 140

13:40: [OxidativeThuPM103] OS Keynote
POTENTIAL OF ANTIOXIDANT TREATMENT FOR GREY HAIR AND HAIR LOSS
Yoshiaki Harakawa¹; Fuhua Yang¹; Kentaro Omoya¹; Haruhiko Inufusa¹
¹Gifu University, Gifu, Japan
Paper ID: 130

14:00: [OxidativeThuPM104] OS Plenary
ANTIOXIDANT TREATMENT FOR HYPERTHYROIDISM
Yoshiaki Harakawa¹; Fuhua Yang¹; Kentaro Omoya¹; Haruhiko Inufusa¹
¹Gifu University, Gifu, Japan
Paper ID: 234

14:20 POSTERS - Ballroom Foyer

SESSION: OxidativeThuPM2-R2		Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)	
Thu. 20 Nov. 2025 / Room: Dusit 2			
<u>Session Chairs:</u> Davis Joseph; Yugo Kato			

14:25: [OxidativeThuPM205] OS Plenary
**PROTEIN METALATION BY METAL-BASED DRUGS: A PROTEIN
CRYSTALLOGRAPHER'S PERSPECTIVE**
Antonello Merlino¹
¹University of Naples Federico II, Naples, Italy
Paper ID: 304

14:45: [OxidativeThuPM206] OS Keynote
**NITRIC OXIDE INHIBITS TEN-ELEVEN TRANSLOCATION DNA DEMETHYLASES
TO REGULATE 5mC AND 5hmC ACROSS THE GENOME**
Douglas D. Thomas¹
¹University of Illinois at Chicago, Chicago, United States
Paper ID: 14

15:05: [OxidativeThuPM207] OS Invited
**SIMULATED MICROGRAVITY ALTERS DOXORUBICIN-INDUCED HSP IN A
HUMAN MEGAKARYOBLAST CELL LINE**
Alisa Sokolovskaya¹
¹Institute of General Pathology and Pathophysiology, Moscow, Russian Federation
Paper ID: 357

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: MultiscaleThuPM1-R3	10th Intl. Symp. on Multiscale Material Mechanics & Sustainable Applications
Thu. 20 Nov. 2025 / Room: Dusit 3	
<u>Session Chairs:</u> Milos Janecek; Lalaonirina Rakotomanana	

13:00: [MultiscaleThuPM101] OS Keynote
PHASE TRANSFORMATIONS IN ULTRAFINE-GRAINED Ti15Mo ALLOY PREPARED BY SEVERE PLASTIC DEFORMATION

Milos Janecek¹

¹Charles University, Prague, Czech Republic

Paper ID: 34

13:20: [MultiscaleThuPM102] OS
INVESTIGATION OF DEFORMATION ACROSS DIFFERENT SCALES AND MATERIALS USING IN-SITU TECHNIQUES

Michal Knappek¹

¹Charles University, Prague, Czech Republic

Paper ID: 45

13:40: [MultiscaleThuPM103] OS
SOME THOUGHTS ON THE FORMULATION OF CONSERVATION LAWS FOR GENERALIZED CONTINUUM

Lalaonirina Rakotomanana¹

¹University of Rennes, Rennes, France

Paper ID: 292

14:00: [MultiscaleThuPM104] OL Keynote
EXPLORING CYLINDRICAL AUXETIC STRUCTURES FOR STATIC AND DYNAMIC APPLICATIONS

Raj Das¹; Vishnu Kashyap¹

¹RMIT University, Melbourne, Australia

Paper ID: 290

14:20 POSTERS - Ballroom Foyer

SESSION: MultiscaleThuPM2-R3	10th Intl. Symp. on Multiscale Material Mechanics & Sustainable Applications
Thu. 20 Nov. 2025 / Room: Dusit 3	
<u>Session Chairs:</u> Michal Knappek	

14:25: [MultiscaleThuPM205] OS Keynote
**INTERPRETABLE MACHINE LEARNING APPROACH FOR EXPLORING
PROCESS-STRUCTURE-PROPERTY RELATIONSHIPS IN METAL ADDITIVE
MANUFACTURING**

Xiaopeng Li¹
¹UNSW Sydney, Sydney, Australia
Paper ID: 15

14:45: [MultiscaleThuPM206] OL
**IMPROVING THE FATIGUE DESIGN OF MECHANICAL SYSTEMS SUCH AS
REFRIGERATOR IN TRANSPORTATION UTILIZING A QUANTUM/TRANSPORTED
LIFE-STRESS AND SAMPLE SIZE MODEL**

Seongwoo Woo¹
¹Technical and Vocational Training Institute (TVTI), Addis Ababa, Ethiopia
Paper ID: 341

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: MathematicsThuPM3-R3 Thu. 20 Nov. 2025 / Room: Dusit 3 <u>Session Chairs:</u> Francis V Fernandes	Kauffman International Symposium (8th Intl. Symp. on Sustainable Mathematics Applications)
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16:05: [MathematicsThuPM309] OS
**THE ROLE OF NEWTON’S GRAVTITATION CONSTANT IN ELECTROMAGNETISM
OF A COPPER WIRE**

Francis V Fernandes¹
¹Kodaikanal, India
Paper ID: 250

16:25: [MathematicsThuPM310] OS
**ELECTRODYNAMIC TREATMENT OF INFECTIOUS DISEASES THE REALM OF
BIOPHYSICS**

Francis V Fernandes¹
¹Kodaikanal, India
Paper ID: 359

16:45: [MathematicsThuPM311] OS
DYNAMIC KNOTTED CHIRAL META MATTER

Ivan Smalyukh¹
¹International Institute for Sustainability with Knotted Chiral Meta Matter, Hiroshima
University, Hiroshima, Japan
Paper ID: 21

17:25 POSTERS - Ballroom Foyer

19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION: PolymersThuPM1-R4	Matyjaszewski International Symposium (5th Intl. Symp. on Green Chemistry & Polymers & their Application for Sustainable Development)
Thu. 20 Nov. 2025 / Room: Sampaguita	
<u>Session Chairs:</u> Jin Ge; Ting Han	

13:00: [PolymersThuPM101] OS

AROMATIC CATION- π DOMINATED HOLISTIC PATHWAY CONTROL IN LIVING SUPRAMOLECULAR POLYMERIZATION

Wei Tian¹; Zhelin Zhang¹

¹Northwestern Polytechnical University, Xi'an, China

Paper ID: 87

13:20: [PolymersThuPM102] OS

HIGH PERFORMANCE AND REPROCESSABLE POLYURETHANE ELASTOMER: DESIGN, FABRICATION, STRUCTURE-PROPERTIES AND APPLICATIONS

Xuan Qin¹

¹Beijing University of Chemical Technology, Beijing, China

Paper ID: 240

13:40: [PolymersThuPM103] OS

CONTROLLABLE HELIX INVERSION AND CIRCULARLY-POLARIZED LUMINESCENCE OF POLYMERIC FOLDAMERS

Zijie Qiu¹

¹The Chinese University of Hong Kong, Shenzhen, China

Paper ID: 110

14:00: [PolymersThuPM104] OS

PHOTO-CROSSLINKING INDUCED SINGLE-LAYERED JANUS POLYIMIDE FOR PHOTOACTUATOR

Zheng Zhao, Sr¹

¹The Chinese University of Hong Kong, Shenzhen, China

Paper ID: 116

14:20 POSTERS - Ballroom Foyer

SESSION:
PolymersThuPM2-R4

**Matyjaszewski International
Symposium (5th Intl. Symp. on Green
Chemistry & Polymers & their
Application for Sustainable
Development)**

Thu. 20 Nov. 2025 / Room: **Sampaguita**

Session Chairs: Jiajun Yan

14:25: [PolymersThuPM205] OS

**OPTIMIZATION OF GREEN DEEP EUTECTIC SOLVENT EXTRACTION
PARAMETERS BY RESPONSE SURFACE METHODOLOGY TO MAXIMIZE THE
YIELD OF LIGNIN FROM LIGNOCELLULOSIC FRUIT WASTES**

Sayantana Ghosh¹; Krishna Pramanik¹

¹National Institute of Technology, Rourkela, India

Paper ID: 343

14:45: [PolymersThuPM206] OS

**ENGINEERING MACROMOLECULAR TOPOLOGY FOR HIGH-PERFORMANCE
ADHESIVES**

Qi Zhang¹

¹The Chinese University of Hong Kong, Shenzhen, China

Paper ID: 135

15:05: [PolymersThuPM207] OS

**SUSTAINABLE MECHANOCHEMICAL SYNTHESIS OF WELL-DEFINED
POLYMERS**

Zhenhua Wang¹

¹Northwestern Polytechnical University, Xi'an, China

Paper ID: 171

15:25: [PolymersThuPM208] OS

**CONTROLLED SYNTHESIS OF PROTEIN-POLYMER CONJUGATES BY
AQUEOUS ATRP**

Weiping Gao¹

¹Peking University, Beijing, China

Paper ID: 216

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:
PhysicalThuPM3-R4

**5th Intl. Symp. on Physical Chemistry &
Its Applications for Sustainable
Development**

Thu. 20 Nov. 2025 / Room: **Sampaguita**

Session Chairs: Gheorghe Duca; Bogdan Palosz

16:05: [PhysicalThuPM309] OS Keynote
APPLICATION OF AI TO NANOCRYSTALLOGRAPHY
Bogdan Palosz¹; Svitlana Stelmakh¹; Kazimierz Skrobas²; Stanislaw Gierlotka¹
¹Polish Academy of Sciences, Warsaw, Poland; ²National Centre for Nuclear Research, Otwock, Poland
Paper ID: 260

16:25: [PhysicalThuPM310] OS Invited
SILVER COORDINATION COMPOUNDS WITH LIGANDS BASED ON AZULENE DERIVATIVE
Gheorghe Duca¹; Marius Andruh²; Simona Nica²; Petru Filip²; Iolanta Balan¹; Lidia Romanciuc¹; Olga Covaliova¹
¹Moldova State University, Chişinău, Moldova; ²Romanian Academy, Bucharest, Romania
Paper ID: 11

16:45: [PhysicalThuPM311] OS
NON-COVALENT INTERACTIONS – USEFUL TOOLS IN CRYSTAL ENGINEERING
Gheorghe Duca¹; **Marius Andruh²**
¹Moldova State University, Chişinău, Moldova; ²Romanian Academy, Bucharest, Romania
Paper ID: 10

17:25 POSTERS - Ballroom Foyer
19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: GeomechanicsThuPM1-R5	5th Intl Symp on Geomechanics & Applications for Sustainable Development
Thu. 20 Nov. 2025 / Room: Orchid	
<u>Session Chairs:</u> Jili Qu	

13:00: [GeomechanicsThuPM101] OS
SOLITARY WAVES DURING BLEEDING OF FRESH CONCRETE IN DEEP FOUNDATIONS
Wei Wu¹
¹BOKU University, Vienna, Austria
Paper ID: 91

13:20: [GeomechanicsThuPM102] OS
EXPLORING THE POTENTIAL OF BIO-STIMULATION FOR SAND FIXATION AND DUST PREVENTION IN THE WESTERN TAKLIMAKAN DESERT EDGE
Jili Qu¹
¹Kashi Univerisity, Shanghai, China
Paper ID: 387

14:20 POSTERS - Ballroom Foyer

SESSION: MathematicsThuPM2-R5 Thu. 20 Nov. 2025 / Room: Orchid <u>Session Chairs:</u> Dmitri Alexandrov	Kauffman International Symposium (8th Intl. Symp. on Sustainable Mathematics Applications)
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14:25: [MathematicsThuPM205] OS Keynote
AIM MODEL
Alexander Filonov¹; Aleksandr Ivanenko²
¹Institute of Nonferrous Metals and Materials Science, Siberian Federal University, Krasnoyarsk, Russian Federation; ²L.V. Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russian Federation
Paper ID: 269

14:45: [MathematicsThuPM206] OS
GROWTH OF PROTEIN CRYSTALS FROM SATURATED SOLUTIONS
Dmitri Alexandrov¹
¹Ural Federal University, Yekaterinburg, Russian Federation
Paper ID: 252

15:05: [MathematicsThuPM207] OS
FK MODEL. GROUND STATE
Anatoly Babushkin¹; Aleksandr Ivanenko²; Artur Abkaryan³; **Alexander Filonov**⁴
¹Institute of Space and Informatic Technologies, Siberian Federal University, Krasnoyarsk, Russian Federation; ²L.V. Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russian Federation; ³Institute of Engineering Physics and Radioelectronics, Siberian Federal University, Krasnoyarsk, Russian Federation; ⁴Institute of Nonferrous Metals and Materials Science, Siberian Federal University, Krasnoyarsk, Russian Federation
Paper ID: 263

15:25: [MathematicsThuPM208] OS

FK MODEL. DYNAMICS

Anatoly Babushkin¹; Aleksandr Ivanenko²; Artur Abkaryan³; **Alexander Filonov**⁴

¹Institute of Space and Informatic Technologies, Siberian Federal University, Krasnoyarsk, Russian Federation; ²L.V. Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russian Federation; ³Institute of Engineering Physics and

Radioelectronics, Siberian Federal University, Krasnoyarsk, Russian Federation; ⁴Institute of Nonferrous Metals and Materials Science, Siberian Federal University,

Krasnoyarsk, Russian Federation

Paper ID: 264

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: ModellingThuPM3-R5	20th Intl. Symp. on Multiscale & Multiphysics Modelling of 'Complex' Material
Thu. 20 Nov. 2025 / Room: Orchid	
<u>Session Chairs:</u> Alexander Filonov; Aleksandr Ivanenko	

16:05: [ModellingThuPM309] OS Invited

DFK MODEL

Alexander Filonov¹; Lyudmila Kveglis²; Artur Abkaryan²; Evgeniy Artemyev²

¹Institute of Nonferrous Metals and Materials Science, Siberian Federal University, Krasnoyarsk, Russian Federation; ²Institute of Engineering Physics and

Radioelectronics, Siberian Federal University, Krasnoyarsk, Russian Federation

Paper ID: 266

16:25: [ModellingThuPM310] OS

PORTVIN - LE CHATELIER EFFECT

Lyudmila Kveglis¹; Evgeniy Artemyev¹; Artur Abkaryan¹; **Alexander Filonov**²

¹Institute of Engineering Physics and Radioelectronics, Siberian Federal University, Krasnoyarsk, Russian Federation; ²Institute of Nonferrous Metals and Materials

Science, Siberian Federal University, Krasnoyarsk, Russian Federation

Paper ID: 267

16:45: [ModellingThuPM311] OS

APPLICATION OF THE DFK MODEL TO METAL ALLOYS

Evgeniy Artemyev¹; Lyudmila Kveglis¹; Artur Abkaryan¹; **Alexander Filonov**²

¹Institute of Engineering Physics and Radioelectronics, Siberian Federal University, Krasnoyarsk, Russian Federation; ²Institute of Nonferrous Metals and Materials

Science, Siberian Federal University, Krasnoyarsk, Russian Federation

Paper ID: 268

17:05: [ModellingThuPM312] OS
AIM* MODEL, A COSMOLOGICAL APPLICATION
Aleksandr Ivanenko¹; Nikolay Shestakov¹; **Alexander Filonov**²
¹L.V. Kirensky Institute of Physics SB RAS, Krasnoyarsk, Russian Federation; ²Institute of Nonferrous Metals and Materials Science, Siberian Federal University, Krasnoyarsk, Russian Federation
Paper ID: 270

17:25 POSTERS - Ballroom Foyer
19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION: BiomaterialsThuPM1-R6	International Symposium on Biomaterials for Sustainable Development
Thu. 20 Nov. 2025 / Room: Jasmin	
<u>Session Chairs:</u> Hassane Oudadesse; Krishna Pramanik	

13:00: [BiomaterialsThuPM101] OL
SYNTHETIC NANO-BIOMATERIALS FOR BONE RESTORATION AND DRUG DELIVERY: IN VITRO AND IN VIVO ASSAYS
Hassane Oudadesse¹; Nada Hamrouni²; Mossadok Ben-Attia³
¹University of Rennes, Rennes, France; ²University El Manar, Tunis, Tunisia; ³University of Carthage, Zarzouna, Tunisia
Paper ID: 100

13:20: [BiomaterialsThuPM102] OS Invited
DEVELOPING FUNCTIONALIZED SMART BIOMATERIAL FOR CORNEAL EPITHELIAL TISSUE REGENERATION
Krishna Pramanik¹
¹National Institute of Technology, Rourkela, India
Paper ID: 344

13:40: [BiomaterialsThuPM103] OS
MULTISCALE ASSESSMENT OF ORBITAL BONE MECHANICS: CORRELATING NANOINDENTATION RESULTS WITH MICRO AND MICROSTRUCTURE THROUGH NUMERICAL SIMULATION
Jean-Philippe Jehl¹
¹Université de Lorraine, Nancy, France
Paper ID: 107

14:00: [BiomaterialsThuPM104] OS
MECHANICAL CHARACTERIZATION OF 3D PRINTED PATTERNED MEMBRANES FOR CARDIAC TISSUE ENGINEERING: AN EXPERIMENTAL AND NUMERICAL STUDY

Aurelia Poerio¹

¹Université de Lorraine, Nancy, France
Paper ID: 108

14:20 POSTERS - Ballroom Foyer

SESSION: AdvancedMaterialsThuPM2-R6	9th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development
Thu. 20 Nov. 2025 / Room: Jasmin	
<u>Session Chairs:</u> Fernand D. S. Marquis; Christoph Scherr	

14:25: [AdvancedMaterialsThuPM205] OS
COMPUTATIONAL DESIGN OF MATERIALS FOR ELECTROCATALYSIS USING QUANTUM MECHANICS AND MACHINE LEARNING TECHNIQUES

Byungchan Han¹

¹Yonsei University, Seoul, South Korea
Paper ID: 26

14:45: [AdvancedMaterialsThuPM206] OS
TECHNO-ECONOMIC ANALYSIS OF DECARBONIZED BACKUP POWER SYSTEMS USING SCENARIO-BASED STOCHASTIC OPTIMIZATION

Jonas Schweiger¹

¹Massachusetts Institute of Technology, Cambridge, United States
Paper ID: 122

15:05: [AdvancedMaterialsThuPM207] OS
THE EFFECT OF DOPING ON THE PROPERTIES OF A NEW KIND OF C50 SOLID
Ang-Yang Yu¹

¹Heilongjiang Vocational College of Biology Science and Technology, Heilongjiang, China
Paper ID: 17

15:25: [AdvancedMaterialsThuPM208] OS
SHINING THROUGH THE DARK: AFTERGLOW FROM VISIBLE TO NIR AND THE ROLE OF TRACE DOPING

Parvej Alam¹

¹The Chinese University of Hong Kong, Shenzhen, Shenzhen, China
Paper ID: 164

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:
AdvancedMaterialsThuPM3-R6

**9th Intl Symposium on New &
Advanced Materials and Technologies
for Energy, Environment, Health and
Sustainable Development**

Thu. 20 Nov. 2025 / Room: **Jasmin**

Session Chairs: Sonja Stefanov; Amr Henni

16:05: [AdvancedMaterialsThuPM309] OS

**THEORETICAL INSIGHTS INTO STRUCTURE, ELECTRONIC AND MECHANICAL
PROPERTIES OF RuB_x (x=1, 2, 3)**

Angyang Yu¹

¹Jilin Agricultural University, Changchun, China

Paper ID: 175

16:25: [AdvancedMaterialsThuPM310] OS

**INNOVATION REQUIREMENTS IN THE SUSTAINABLE DEVELOPMENT OF THE
REGION WITH ECOLOGICAL APPLICATION OF ARTIFICIAL INTELLIGENCE**

Rade Biocanin¹; Tihomir Djuric²; Djordje Popovic²; **Sonja Stefanov**³

¹European Defense Center, Banja Luka, Bosnia and Herzegovina; ²International
University Travnik, Travnik, Bosnia and Herzegovina; ³Academy of Technical and Art
Applied Studies Belgrade, Belgrade, Serbia

Paper ID: 272

16:45: [AdvancedMaterialsThuPM311] OS

**INNOVATION REQUIREMENTS IN ANALYSIS OF DAMAGES REQUIREMENTS IN
ACCESS TO REGIONAL SOCIAL TRAFFIC**

Tihomir Djuric¹; Djordje Popovic¹; Rade Biocanin²; **Sonja Stefanov**³

¹International University Travnik, Travnik, Bosnia and Herzegovina; ²European Defense
Center, Banja Luka, Bosnia and Herzegovina; ³Academy of Technical and Art Applied
Studies Belgrade, Belgrade, Serbia

Paper ID: 273

17:05: [AdvancedMaterialsThuPM312] OS

**ENHANCING RADIOTHERAPY USING GAMMA-IRRADIATION-ENHANCED
NANOCOMPOSITES FOR COLORECTAL CANCER THERAPY**

Basim Almayyahi¹

¹University of Kufa, Najaf, Iraq

Paper ID: 18

17:25 POSTERS - Ballroom Foyer

19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION: CarbonThuPM1-R7	8th Intl. Symp. on Sustainable Carbon and Biocoke and their Industrial Application
Thu. 20 Nov. 2025 / Room: Lotus	
Session Chairs: Juergen Antrekowitsch; Paulo Assis; Philip Aster	

13:00: [CarbonThuPM101] OS Plenary

IMPROVING BIOCOKE FOR INCREASED APPLICABILITY IN METALLURGY

Juergen Antrekowitsch¹

¹Christian Doppler Laboratory, Leoben, Austria

Paper ID: 283

13:20: [CarbonThuPM102] OS Invited

MULTIMODAL CHARACTERIZATION AND APPLICATION POTENTIAL OF CARBON FROM METHANE PYROLYSIS IN METALLIC MELTS

Philip Aster¹; **Juergen Antrekowitsch**²

¹Technical University of Leoben, Leoben, Austria; ²Christian Doppler Laboratory, Leoben, Austria

Paper ID: 127

13:40: [CarbonThuPM103] OS

FEASIBILITY OF BIOCHAR AS A SOLID FUEL SUBSTITUTE FOR SINTERING PROCESS

Dhanraj Patil¹; Dayananda Cb¹; Made Gowda¹

¹JSW Steel Pvt. Ltd., Toranagallu, India

Paper ID: 105

14:20 POSTERS - Ballroom Foyer

SESSION: BatteryThuPM2-R7	10th Intl. Symp. on Sustainable Secondary Battery Manufacturing & Recycling
Thu. 20 Nov. 2025 / Room: Lotus	
Session Chairs: Cher Ming Tan; Gabriela Araujo Gois; Maria Manuela Silva	

14:25: [BatteryThuPM205] OS Keynote

EMERGING RELIABILITY SCIENCES FOR ENVIRONMENTAL SUSTAINABILITY

Cher Ming Tan¹

¹Chang Gung University, Taoyuan, Taiwan

Paper ID: 326

14:45: [BatteryThuPM206] OS Invited
BIOPOLYMER ELECTROLYTES AND THE FUTURE OF SOLID-STATE BATTERIES
Maria Manuela Silva¹; Renato Gonçalves²; Caroline Araújo²
¹University of Minho, Braga, Portugal; ²University of Minho , Braga, Portugal
Paper ID: 83

15:05: [BatteryThuPM207] OS
DEVELOPMENT AND FABRICATION OF LITHIUM-ION BATTERY POUCH CELLS USING A PILOT PRODUCTION LINE
Zhumabay Bakenov¹; Dauren Batyrbekuly¹; Nurzhan Umirov¹
¹National Laboratory Astana, Nazarbayev University, Astana, Kazakhstan
Paper ID: 117

15:25: [BatteryThuPM208] OS
DEVELOPMENT OF DURABLE AUTOMOTIVE BATTERIES WITH LITHIUM-SODIUM ELECTRODES AND SELF-HEALING COATING TECHNOLOGY
Gabriela Araujo Gois¹; Paulo Assis¹; José Margarida Da Silva¹
¹Federal University of Ouro Preto, Ouro Preto, Brazil
Paper ID: 147

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:	3rd International Symposium on Sustainable Biochar
BiocharThuPM3-R7	
Thu. 20 Nov. 2025 / Room: Lotus	
Session Chairs: Hamed Sanei	

16:05: [BiocharThuPM309] OL
BUILDING LIKE TREES IN A FOREST: BIOCHAR AS THE CORNERSTONE OF REGENERATIVE, CLIMATE-RESILIENT POSITIVE BUILDINGS®
Phil Fung¹
¹SRS Consulting Engineers; Humber Polytechnic, Richmond Hill, Canada
Paper ID: 215

16:25: [BiocharThuPM310] OS Keynote
THE GEOLOGICAL FOUNDATION OF BIOCHAR
Hamed Sanei¹
¹Aarhus University, Aarhus, Denmark
Paper ID: 20

17:25 POSTERS - Ballroom Foyer
19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Dusit Ballroom
12:00 LUNCH - Tradewinds Café

SESSION:
EnergyThuPM1-R8

**10th Intl. Symp. on Sustainable Energy
Production: Fossil; Renewables;
Nuclear; Waste handling, processing, &
storage for all energy production
technologies; Energy conservation**

Thu. 20 Nov. 2025 / Room: **Benjarong-Phuket**

Session Chairs: Chasik Park

13:00: [EnergyThuPM101] OS

**FACTORS RELATED TO THE FORMATION OF HEAVY OIL IN A RESERVOIR
ROCK**

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 194

13:20: [EnergyThuPM102] OS

OIL WELL BEHAVIOR IN A GEOLOGICAL SALT FORMATION

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 195

13:40: [EnergyThuPM103] OS

FACTORS AFFECTING THE EROSIONS IN A GEOLOGICAL FORMATION

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 196

14:00: [EnergyThuPM104] OS

**INVESTIGATION OF FOAM INJECTION INTO AN OIL CARBONATE RESERVOIR
TO CONTROL THE GAS OIL RATIO**

Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 197

14:20 POSTERS - Ballroom Foyer

SESSION:
EnergyThuPM2-R8

**10th Intl. Symp. on Sustainable Energy
Production: Fossil; Renewables;
Nuclear; Waste handling, processing, &
storage for all energy production
technologies; Energy conservation**

Thu. 20 Nov. 2025 / Room: **Benjarong-Phuket**

Session Chairs: Abdollah Esmaeili; Laura Garzon; Dariusz Jacek Jakóbczak

14:25: [EnergyThuPM205] OS
FOAM INJECTION INTO AN OIL RESERVOIR TO REDUCE THE SURFACE TENSION BETWEEN RESERVOIR FLUIDS FOR ENHANCED OIL RECOVERY
Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 198

14:45: [EnergyThuPM206] OS
FOAM INJECTION INTO AN OIL CARBONATE RESERVOIR TO INCREASE THE VISCOUS FORCES AGAINST THE CAPILLARY FORCES
Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 199

15:05: [EnergyThuPM207] OS
FOAM INJECTION INTO AN OIL CARBONATE RESERVOIR TO CONTROL FLUID FLOW IN THE RESERVOIR
Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 200

15:25: [EnergyThuPM208] OS
APPLICATION OF ARTIFICIAL INTELLIGENCE IN OIL AND GAS RESERVOIRS
Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 201

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION: EnergyThuPM3-R8 Thu. 20 Nov. 2025 / Room: Benjarong-Phuket <u>Session Chairs:</u> Davide Rossi; Anuor Ayoub	10th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation
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16:05: [EnergyThuPM309] OS
FOAM INJECTION INTO AN OIL CARBONATE RESERVOIR TO CHANGE RESERVOIR ROCK WETTABILITY
Abdollah Esmaeili¹; Afonso Cesar Rodrigues Nogueira¹
¹Federal University of Pará, Belem, Brazil
Paper ID: 202

16:25: [EnergyThuPM310] OS

APPLICATION OF PALEONTOLOGY IN THE DISCOVERY OF OIL AND GAS RESERVOIRS

Laura Garzon¹; Abdollah Esmaeili¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 204

16:45: [EnergyThuPM311] OS

APPLIED GEOSCIENCES IN ENERGY: THE STRATEGIC ROLE OF GEOLOGISTS IN LOCATING HYDROCARBON RESERVES

Laura Garzon¹; Abdollah Esmaeili¹

¹Federal University of Pará, Belem, Brazil

Paper ID: 206

17:25 POSTERS - Ballroom Foyer

19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Dusit Ballroom

12:00 LUNCH - Tradewinds Café

SESSION:

SolidStateChemistryThuPM1-R9

5th Intl. Symp. on Materials/Solid State

Chemistry and Nanoscience for

Sustainable Development

Thu. 20 Nov. 2025 / Room: **Benjarong Main Rest**

Session Chairs: Janina Molenda; Yuli Chashechkin

13:00: [SolidStateChemistryThuPM101] OL Keynote

OBSERVATIONAL, LOGICAL AND MATHEMATICAL FOUNDATIONS OF THE COMPLETE THEORY CALCULATING FLOWS DYNAMICS AND STRUCTURE
Yuli Chashechkin¹

¹Ishlinsky Institute for Problems in Mechanics of the Russian Academy of Sciences, Moscow, Russian Federation

Paper ID: 178

13:20: [SolidStateChemistryThuPM102] OL

CAVITIES, CROWNS, SPIKES, SPLASHES, AND LIGAMENTS IN DROP IMPACT FLOWS

Yuli Chashechkin¹

¹Ishlinsky Institute for Problems in Mechanics of the Russian Academy of Sciences, Moscow, Russian Federation

Paper ID: 179

13:40: [SolidStateChemistryThuPM103] OL

**WAKES, INTERNAL WAVES AND LIGAMENTS IN HETEROGENEOUS MEDIA:
HIGH-RESOLUTION LABORATORY OBSERVATIONS**

Yuli Chashechkin¹

¹Ishlinsky Institute for Problems in Mechanics of the Russian Academy of Sciences,
Moscow, Russian Federation

Paper ID: 180

14:00: [SolidStateChemistryThuPM104] OS

**ELECTRONIC STRUCTURE ENGINEERING IN THE DEVELOPMENT OF HIGH
VOLTAGE CATHODE MATERIALS FOR Na-ION BATTERIES**

Janina Molenda¹

¹AGH University of Krakow, Kraków, Poland

Paper ID: 113

14:20 POSTERS - Ballroom Foyer

SESSION:

SolidStateChemistryThuPM2-R9

**5th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development**

Thu. 20 Nov. 2025 / Room: **Benjarong Main Rest**

Session Chairs: Alexander Filonov; Alexander Salyulev

14:25: [SolidStateChemistryThuPM205] OS

**C, Si – MONO CLAYS. ABOUT THE CRYSTAL STRUCTURE OF DIAMOND AND
SILICON.**

Anatoly Korets¹; Artur Abkaryan¹; Aleksandr Ivanenko²; Nikolay Shestakov²; **Alexander
Filonov³**

¹Institute of Engineering Physics and Radioelectronics, Siberian Federal University,
Krasnoyarsk, Russian Federation; ²L.V. Kirensky Institute of Physics SB RAS,
Krasnoyarsk, Russian Federation; ³Institute of Nonferrous Metals and Materials
Science, Siberian Federal University, Krasnoyarsk, Russian Federation

Paper ID: 261

14:45: [SolidStateChemistryThuPM206] OS

ON THE POSSIBILITY OF "COLD THERMONUCLEAR FUSION"

Valentin Danilov¹; Nikolay Shestakov²; **Alexander Filonov³**

¹Institute of Space and Informatic Technologies, Siberian Federal University,
Krasnoyarsk, Russian Federation; ²L.V. Kirensky Institute of Physics SB RAS,
Krasnoyarsk, Russian Federation; ³Institute of Nonferrous Metals and Materials
Science, Siberian Federal University, Krasnoyarsk, Russian Federation

Paper ID: 262

15:05: [SolidStateChemistryThuPM207] OS

UNDERSTANDING THE DEFORMATION MECHANISM IN LOW DENSITY STEEL THROUGH ELECTRON BACKSCATTERED DIFFRACTION

Ravi Kumar Singh¹

¹IIT BHU, India, Varanasi, India

Paper ID: 162

15:25: [SolidStateChemistryThuPM208] OS

EFFECT OF THERMOMECHANICAL PROCESSING ON 7075 AL ALLOY

Nidhi Chaubey¹; Nikhil Kumar¹

¹IIT(BHU), Varanasi, India

Paper ID: 213

15:45 COFFEE BREAK/POSTERS - Ballroom Foyer

SESSION:

CorrosionThuPM3-R9

**4th Intl Symp. on Corrosion for
Sustainable Development**

Thu. 20 Nov. 2025 / Room: **Benjarong Main Rest**

Session Chairs: Ramana Pidaparti; Ramesh Gardas

16:05: [CorrosionThuPM309] OS Keynote

DESIGNING IONIC LIQUIDS AND DEEP EUTECTIC SOLVENTS FOR SUSTAINABLE SORPTION AND EXTRACTION PROCESSES

Ramesh Gardas¹

¹Indian Institute of Technology Madras, Chennai, India

Paper ID: 282

16:25: [CorrosionThuPM310] OS Invited

CONTACT GLOW DISCHARGE ELECTROLYSIS: A POTENTIAL TOOL FOR GENERATING OH, H RADICALS, AND METALLIC NANO-PARTICLES

Rajeshwar Singh¹

¹Chhattisgarh Swami Vivekanand Technical University, Bhilai, India

Paper ID: 337

16:45: [CorrosionThuPM311] OS

A CASE STUDY: PITTING CORROSION IN CARBON STEEL GAS TRANSMISSION PIPELINE

Atef Zekri¹

¹Qatar Environment and Energy Research Institute, Doha, Qatar

Paper ID: 218

17:25 POSTERS - Ballroom Foyer

19:00 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

Posters

SESSION: GeochemistryPoster	Dutrow International Symposium (4th Intl. Symp. on Geochemistry for Sustainable Development)
Room: Foyer	
Poster Session	

[GeochemistryPoster1] **PETROGRAPHIC INTELLIGENCE: PREDICTING CATALYTIC POTENTIAL FROM ROCKS**
Elena Ifandi¹; Daphne Teck Ching Lai¹; Haezan Jangarun¹; Stavros Kalaitzidis²
¹Universiti Brunei Darussalam, Bandar Seri Begawan, Brunei Darussalam; ²Univerity of Patras, Rio, Greece
Paper ID: 348

SESSION: OxidativePoster	Inufusa International Symposium (5th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)
Room: Foyer	
Poster Session	

[OxidativePoster1] **MARKERS AND ANTIOXIDANT ENZYMES IN THE BRAIN**
Diego Mena Canata¹
¹National University of Asuncion, Asuncion, Paraguay
Paper ID: 211

SESSION: PolymersPoster	Matyjaszewski International Symposium (5th Intl. Symp. on Green Chemistry & Polymers & their Application for Sustainable Development)
Room: Foyer	
Poster Session	

[PolymersPoster1] **SYNTHESIS AND STUDY OF POLY (ESTER UREA)-PSEUDO PROTEINS WITH ENHANCED MECHANICAL STRENGTH**
Sophiko Kvinikadze¹; Nino Zavrashvili²; Aleksandre Vanishvili¹; Daviti Tsverava¹
¹LEPL G. Tsulukidze Mining Institute, Tbilisi, Georgia; ²Agricultural University of Georgia, Tbilisi, Georgia
Paper ID: 224

[PolymersPoster2] **REWRITABLE POLYMER BRUSHES: DYNAMIC COVALENT LINKAGES FOR DIVERSE GRAFTS**

Feichen Cui¹; Jiajun Yan¹

¹ShanghaiTech University, Shanghai, China

Paper ID: 248

SESSION: CompositePoster

**Meyers International Symposium (11th
Intl. Symp. on Composite, Ceramic &
Nano Materials Processing,
Characterization & Applications)**

Room: Foyer

Poster Session

[CompositePoster1] **SYNTHESIS OF POTASSIUM FERRITE BY THE SOL-GEL AUTO-COMBUSTION METHOD: INFLUENCE OF CALCINATION TEMPERATURE ON CRYSTALLINE PHASES**

Ary Machado De Azevedo¹; **Pedro Henrique Poubel Mendonça Da Silveira¹**; Lisley Madeira Coelho¹; Sergio Monteiro¹; Belayne Zanini Marchi¹; Marcelo Henrique Prado Da Silva¹; André Ben-Hur Da Silva Figueiredo¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 43

[CompositePoster2] **MICROSTRUCTURE AND CRYSTALLINE PHASE EVALUATION OF POTASSIUM FERRITE OBTAINED BY COLD SINTERING PROCESS USING DIFFERENT SOLVENT SOLUTIONS**

Ary Machado De Azevedo¹; Pedro Henrique Poubel Mendonça Da Silveira¹; Lisley Madeira Coelho¹; Belayne Zanini Marchi¹; Marcelo Henrique Prado Da Silva¹; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 44

[CompositePoster3] **BALLISTIC PROPERTIES OF NOVEL EPOXY COMPOSITE REINFORCED WITH SEDGE FIBERS (CYPERUS MALACCENSIS) COATED BY GRAPHENE OXIDE**

Lucas Neuba¹; Elias Matias Bentes¹; Sarah De Melo¹; **Belayne Zanini Marchi¹**; Sergio Monteiro¹; Marc Meyers²

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 47

[CompositePoster4] **EVALUATION OF BANANA FIBER AS A SUSTAINABLE REINFORCEMENT FOR PAVEMENT SUBGRADE SOILS**

Lisley Madeira Coelho¹; Albeds Mesquita Povuação¹; Murilo Miguel Narciso, Sr¹; Pedro Henrique Poubel Mendonça Da Silveira¹; Sergio Monteiro¹; Mário Sérgio De Souza Almeida²; Cleidson Carneiro Guimarães²; Paulo Roberto Lopes Lima³; Maria Do Socorro³; Antônio Carlos Rodrigues Guimarães, Sr.¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Federal University of Recôncavo da Bahia, Cruz das Almas, Brazil; ³State University of Feira de Santana, Feira de Santana, Brazil

Paper ID: 55

[CompositePoster5] **MECHANISMS OF HARDENING IN INTERSTITIAL AND SUBSTITUTIONAL SOLID SOLUTIONS MATHEMATICAL DERIVATION**

Sarah De Melo¹; Pedro Henrique Poubel Mendonça Da Silveira¹; Ary Machado De Azevedo¹; Sergio Monteiro¹; Lucio Fabio Cassiano Nascimento¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 57

[CompositePoster6] **INFLUENCE OF FFF PROCESS PARAMETERS ON THE MECHANICAL AND THERMAL PERFORMANCE OF CARBON FIBER-REINFORCED POLYAMIDE COMPOSITES**

Sarah De Melo¹; Lucas Neuba¹; Belayne Zanini Marchi¹; Sergio Monteiro¹; Lucio Fabio Cassiano Nascimento¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 58

[CompositePoster7] **RADIOLOGICAL PROTECTION SIMULATION OF ARAMID AND LINEN FABRIC COMPOSITES WITH EPOXY MATRIX: ANALYSIS OF PHOTON FLUX AND ENERGY DEPOSITION**

Thomaz Jacintho Lopes¹; Marc Meyers²; Douglas Silva¹; Raí Felipe Pereira Junio¹; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 60

[CompositePoster8] **SIMULATION OF SiC-REINFORCED ARAMID-FIQUE EPOXY COMPOSITES FOR GAMMA AND NEUTRON RADIOLOGICAL PROTECTION**

Thomaz Jacintho Lopes¹; Marc Meyers²; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²University of California San Diego, La Jolla, United States

Paper ID: 63

[CompositePoster9] **SIMULATION OF RADIATION INTERACTIONS WITH 2D MATERIALS FOR ADVANCED RADIATION SENSOR APPLICATIONS**

Thomaz Jacintho Lopes¹; Fernando Manuel Araújo Moreira¹; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 64

[CompositePoster10] **CHARACTERIZATION AND TREATMENT ANALYSIS OF AMAZONIAN FIBER FOR FUTURE APPLICATIONS**

Murilo Miguel Narciso, Sr¹; Lisley Madeira Coelho¹; Rafael Travincas¹; Sergio Monteiro¹; Antônio Carlos Rodrigues Guimarães, Sr.¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 69

[CompositePoster11] **OPTIMIZING THE THERMAL TREATMENT OF MINING WASTE-AMENDED 4 CLAYS FOR CERAMIC AGGREGATES IN PAVEMENT APPLICATIONS**

Murilo Miguel Narciso, Sr¹; Lisley Madeira Coelho¹; Sergio Monteiro¹; Antônio Carlos Rodrigues Guimarães, Sr.¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 71

[CompositePoster12] **DETERMINATION OF FLEXURAL MECHANICAL PROPERTIES OF POLYESTER MATRIX COMPOSITES REINFORCED WITH GUARUMÃ FIBERS**

Miriane Alexandrino Pinheiro¹; Manoel Vinícius França Monteiro¹; Marcos Allan Leite Dos Reis¹; Alisson Clay Rios Da Silva²; Sergio Monteiro³; Marc Meyers⁴; **Verônica Scarpini Candido**¹

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Paper ID: 74

[CompositePoster13] **FRACTURE TOUGHNESS OF CARBON AND SISAL FIBER-REINFORCED COMPOSITES: EXPERIMENTAL CHARACTERIZATION**

Elias Matias Bentes¹; Belayne Zanini Marchi¹; Sergio Monteiro¹; Marc Meyers²

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Paper ID: 75

[CompositePoster14] **THE EFFECTS OF RARE EARTH METAL COMPOUND (Y₂O₃) ON THE FERROELECTRIC PROPERTIES OF (Bi_{0.5}Na_{0.5})TiO₃ BASE LEAD-FREE CERAMICS**

Jeong-Ho Cho¹

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Paper ID: 101

[CompositePoster15] **THERMAL PLASMA GRAPHITIZATION OF PURIFIED ANTHRACITE FOR ADVANCED CARBON APPLICATIONS**

Yong Hyun Lee¹; Kyu-Hong Kyung¹; Min-Ju Eum¹; Hyo-Joon Shin¹; Sun-Yong Choi²; Jeong-Mi Yeon²

¹Yeongwol Industrial Promotion Agency, Yeongwol, South Korea; ²Cheorwon Plasma Research Institute, Cheorwon, South Korea

Paper ID: 128

[CompositePoster16] **FABRICATION OF PARTICLE-FREE SILVER INK AND ITS APPLICATION TO LOW-TEMPERATURE SINTERABLE HIGH-CONDUCTIVITY PASTE**

Jong-Hyun Lee¹

¹Seoul National University of Science and Technology, Seoul, South Korea
Paper ID: 214

[CompositePoster17] **CALCIUM AND STRONTIUM CARBOXYLATES AS PRECURSORS OF ADVANCED NANOCOMPOSITE MATERIALS**

Igor Uflyand¹; Anastasiya Zarubina¹; Vladimir Zhinzhilo¹

¹Southern Federal University, Rostov-on-Don, Russian Federation
Paper ID: 303

[CompositePoster18] **REFRACTORIES CONTAINING SILICON CARBIDE (SiC): A REVIEW**

Edna Da Silva¹; Alisson Lara De Carvalho²; Natália Pimenta¹; Edinalva Mendonça¹; Luiz Filipe Oliveira¹; Paulo Assis¹

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Paper ID: 331

SESSION: LawsPoster	Otis International Symposium (5th Intl Symp on Law & its Applications for Sustainable Development)
Room: Foyer	
Poster Session	

[LawsPoster1] **ZERO WASTE IN HIGH SCHOOLS IN BRAZIL: A SUSTAINABLE PATH FOR EDUCATION**

Gislaine Soares Araujo¹; Braian Araujo¹; Paulo Assis²

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Paper ID: 145

SESSION: PharmaceuticalPoster	Tanner International Symposium (2nd Intl. Symp. on Pharmaceutical Sciences and Industrial Applications for Sustainable Development)
Room: Foyer	
Poster Session	

[PharmaceuticalPoster1] **INFLUENCE OF A THERAPEUTIC MONOCLONAL ANTIBODY FORMULATION BEFORE AND AFTER IRRADIATION ON THE SURFACE TENSION PROPERTIES OF BLOOD DROPLETS BY THE CONTACT ANGLE METHOD**

Davide Rossi^{1,2}; Giorgia Miolo²

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Paper ID: 249

SESSION: AdvancedMaterialsPoster

9th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development

Room: Foyer

Poster Session

[AdvancedMaterialsPoster1] **THE EFFECT OF PRINTING DEFECTS ON FUNCTIONAL PROPERTIES OF ADDITIVELY MANUFACTURED (AM) AUSTENITIC STAINLESS STEELS**

Eli Aghion¹

¹Ben-Gurion University of the Negev, Tel Aviv, Israel

Paper ID: 115

[AdvancedMaterialsPoster2] **INVESTIGATION OF FATIGUE CHARACTERISTICS IN CARBON NANOTUBE REINFORCED CLOSED-CELL ALUMINUM FOAMS**

Sanjeev Khanna¹; Rupesh Devapati¹

¹University of Missouri, Columbia, United States

Paper ID: 208

[AdvancedMaterialsPoster3] **16% EFFICIENT LEAD-FREE PEROVSKITE SOLAR CELLS ACHIEVED BY DEFECT PASSIVATION AND ENERGY LEVEL ADJUSTMENT**

Yuedong Shi¹

¹ShanghaiTech University, Shanghai, China

Paper ID: 274

[AdvancedMaterialsPoster4] **WATER CONSUMPTION IN BRAZILIAN INDUSTRIAL SECTORS: A COMPARATIVE ANALYSIS**

Natália Pimenta¹; Edna Da Silva¹; Paulo Assis¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 330

[AdvancedMaterialsPoster5] **HETERO-HALOGEN ISOMERS AS MORPHOLOGY-REGULATING ADDITIVES FOR EFFICIENT ORGANIC SOLAR CELLS**

Changduk Yang¹

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Paper ID: 356

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SESSION: BatteryPoster

**10th Intl. Symp. on Sustainable
Secondary Battery Manufacturing &
Recycling**

Room: Foyer

Poster Session

[BatteryPoster1] **PHOSPHORUS-DOPED HARD CARBON DERIVED FROM
RECYCLED PET BOTTLES AS A HIGH-PERFORMANCE ANODE MATERIAL FOR
LITHIUM-ION BATTERIES**

Arailym Nurpeissova¹

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Paper ID: 136

SESSION: BiocharPoster

**3rd International Symposium on
Sustainable Biochar**

Room: Foyer

Poster Session

[BiocharPoster1] **A NEW AND EFFICIENT NATURAL DRAFT MIXING/BURNING
TECHNIQUE FOR PYROLYSIS GAS**

Gerard Harris, Na¹

¹Aprovecho, Santa Rosa, United States

Paper ID: 221

SESSION: BioextractionPoster

**10th Intl. Symp. on Sustainable Base-
metal Bio-extraction**

Room: Foyer

Poster Session

[BioextractionPoster1] **SUSTAINABLE RECOVERY OF CRITICAL METALS FROM
SPENT LITHIUM-ION BATTERIES: A PATH TO THE CIRCULAR ECONOMY AND
ENVIRONMENTAL HEALTH**

Sugandha Aachhera¹

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Paper ID: 109

SESSION: BiotechnologyPoster

**International Symposium on
Biotechnology for Nutrition, Health and
Sustainability**

Room: Foyer

Poster Session

[BiotechnologyPoster1] **FUNCTIONAL IMPACT OF SHORT-TERM FASTING ON HUMAN GUT MICROBIOTA AND SECONDARY BILE ACID METABOLISM**

Syeda Anchel Zahra¹

¹Charite University of Medicine, Berlin, Germany

Paper ID: 168

SESSION: CarbonPoster

**8th Intl. Symp. on Sustainable Carbon
and Biocoke and their Industrial
Application**

Room: Foyer

Poster Session

[CarbonPoster1] **MACHINE LEARNING FOR COKE QUALITY PREDICTION: ADVANCES, RESEARCH GAPS AND IMPLICATIONS FOR GHG EMISSIONS**

Denilson Gomes Campos, Sr.¹; Paulo Assis²; Guilherme Silva³; Dimas Coura⁴

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Paper ID: 353

SESSION: CoatingPoster

**10th Intl. Symp. on Sustainable Surface
& Interface Engineering: Coatings for
Extreme Environments**

Room: Foyer

Poster Session

[CoatingPoster1] **ENHANCEMENT OF CELLULAR AND ANTIBACTERIAL PROPERTIES OF TiN-Cu COMPOSITE COATINGS INDUCED BY Mg+ IMPLANTATION**

Dejun Li¹

¹Tianjin Normal University, Tianjin, China

Paper ID: 89

[CoatingPoster2] **MEASUREMENT OF THE BIOFIELDS EFFECTS AT WATER/SKIN INTERFACE AND WATER DROP USING SURFACE TENSOMETRY: A PRELIMINARY STUDY**

Daive Rossi^{1, 2}; Daniela Moro³; Nello Baro³; Renata Uruci⁴; Alberto Ansaloni⁴; Patrizia Vecchi⁴; Mario Luvie⁴

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⁴Development Cooperation BAZH.I NGO, Maserada sul Piave, Italy

Paper ID: 106

[CoatingPoster3] **EVALUATION OF THE EFFECT OF ORAL WATER ADMINISTRATION ON THE SKIN HYDRATION STATE OF BASKETBALL BOYS USING THE CONTACT ANGLE METHOD: THE “BASKETSKIN PROTOCOL”**

Davide Rossi^{1, 2;} Davide Frasson^{3;} Renata Uruci^{3;} Pierluigi Munaretto^{4;} Cinzia Pastorin^{4;} Luigi Dal Zio⁴

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Paper ID: 137

[CoatingPoster4] **MEASUREMENT OF THE SKIN HYDRATION STATE OVER THE TIME USING CONTACT ANGLE METHOD**

Davide Rossi^{1, 2;} Marika Zuanon^{2;} Nicola Realdon³

¹Development Cooperation Association BAZH.I, Maserada Sul Piave, Italy; ²University of Padova, Padova, Italy; ³University of Verona, Verona, Italy
Paper ID: 354

SESSION: CorrosionPoster	4th Intl Symp. on Corrosion for Sustainable Development
Room: Foyer	
Poster Session	

[CorrosionPoster1] **MICROSTRUCTURE AND OXIDATION BEHAVIOR OF TiCrAlNb(Si,B)_x MULTI-PRINCIPAL ELEMENT ALLOYS**

Hongbo Shi¹

¹University of Sheffield, Sheffield, United Kingdom
Paper ID: 41

[CorrosionPoster2] **PREDICTING MACROSCOPIC CORROSION OF STEEL USING PROBABILISTIC MODELING AND EXPERIMENTAL VALIDATION**

Ramana Pidaparti¹

¹University of Georgia, Athens, United States
Paper ID: 54

SESSION: EnergyPoster	10th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation
Room: Foyer	
Poster Session	

[EnergyPoster1] **A STUDY ON PERFORMANCE IMPROVEMENT OF ENGINE-DRIVEN HEAT PUMP USING LOW GWP REFRIGERANT THROUGH WASTE HEAT UTILIZATION UNDER LOW TEMPERATURE CONDITION**

Hyun Joon Chung¹

¹Hoseo University, Asan, South Korea
Paper ID: 244

[EnergyPoster2] **PERFORMANCE ENHANCEMENT OF THE EVCC WITH LOW-GWP REFRIGERANTS**

Chasik Park¹

¹Hoseo University, Asan-si, South Korea
Paper ID: 245

[EnergyPoster3] **NEW PERSPECTIVES IN THE PRODUCTION OF GREEN H2: THE SedesH PROPOSAL**

Gioele Magaldi¹; **Davide Rossi**^{2, 3}

¹SedesH srl , Perugia, Italy; ²Development Cooperation Association BAZH.I, Maserada Sul Piave, Italy; ³University of Padova, Padova, Italy
Paper ID: 255

SESSION: MetalsPoster	9th Intl. Symp. on Sustainable Metals & Alloys Processing
Room: Foyer	
Poster Session	

[MetalsPoster1] **EXTRACTION OF COPPER FROM LOW-GRADE ORE BY BIO-OXIDATION PROCESSES**

Akbota Bakrayeva¹

¹"Institute of Metallurgy and Ore Beneficiation" JSC, Almaty, Kazakhstan
Paper ID: 280

SESSION: MineralPoster	11th Intl. Symp. on Sustainable Mineral Processing
Room: Foyer	
Poster Session	

[MineralPoster1] **ATMOSPHERIC PRESSURE DIELECTRIC BARRIER DISCHARGE PLASMA FOR THE PRACTICAL APPLICATIONS IN THE NATURAL MINERALS PROCESSING**

Igor Bunin¹; Maria Ryazantseva²; Irina Khabarova²

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Paper ID: 31

SESSION: ModellingMaterialsPoster

**3rd Intl Symp. on Modelling, Materials &
Processes Interdisciplinary Symposium
for Sustainable Development**

Room: Foyer

Poster Session

[ModellingMaterialsPoster1] **USING COMPUTER SIMULATION TO ELIMINATE DEFECTS IN DUCTILE IRON CASTINGS**

Peter Futas¹; **Alena Pribulova**¹; Peter Blasko¹; Jozef Petrik¹; **Marcela Pokusova**²; Marek Solc¹; Patrik Fedorko¹; Marcin Brzezinski³

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Paper ID: 24

[ModellingMaterialsPoster2] **FIRST-PRINCIPLES INSIGHTS INTO GAS ADSORPTION MECHANISMS ON CuO SURFACES FOR SENSING APPLICATIONS**

Abylay Tangirbergen¹; Gani Yergaliuly¹; Baktiyar Soltabayev¹

¹Nazarbayev University, Astana, Kazakhstan

Paper ID: 305

SESSION: MoltenPoster

**11th Intl. Symp. on Sustainable Molten
Salt, Ionic & Glass-forming Liquids &
Powdered Materials**

Room: Foyer

Poster Session

[MoltenPoster1] **ELECTROCHEMICAL SYNTHESIS OF TI-B COMPOUND FROM IMIDAZOLE MELTS**

Sergei Devyatkin¹; Peixia Yang¹; Fan Meng¹

¹Harbin Institute of Technology, Harbin, China

Paper ID: 112

[MoltenPoster2] **MOLAR ELECTRICAL CONDUCTIVITY OF MOLTEN (LiCl-KCl)eut. - PbCl₂ MIXTURES**

Alexei Potapov¹; Alexander Salyulev²

¹Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation;

²Institute of High Temperature Electrochemistry, Ural Branch of Russian Academy of Science, Ekaterinburg, Russian Federation

Paper ID: 134

[MoltenPoster3] **ELECTRICAL CONDUCTIVITY OF MOLTEN MIXTURES OF $ZrCl_4$ WITH ALKALI METAL CHLORIDES**

Alexander Salyulev¹; **Alexei Potapov**²

¹Institute of High Temperature Electrochemistry, Ural Branch of Russian Academy of Science, Ekaterinburg, Russian Federation; ²Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation

Paper ID: 138

[MoltenPoster4] **ELECTRICAL CONDUCTIVITY OF SOME MOLTEN CHLORIDES WITH NEGATIVE TEMPERATURE COEFFICIENTS**

Alexander Salyulev¹; **Alexei Potapov**²

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Paper ID: 141

SESSION: NanotechnologyPoster

4th Intl Symp. on Nanotechnology for Sustainable Development

Room: Foyer

Poster Session

[NanotechnologyPoster1] **PROTECTIVE EFFECTS OF GELATIN-ENCAPSULATED QUERCETIN AGAINST OXIDATIVE CELL DAMAGE**

Alla Potapovich¹; Tatyana Kostyuk¹; Tatsiana Shutova²; **Vladimir Kostyuk**¹

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Paper ID: 210

[NanotechnologyPoster2] **CHEMORESISTIVE SENSOR FOR AMMONIA DETECTION BASED ON Ti DOPED ZnO**

Aizhan Rakhmanova¹

¹Institute of Batteries, Astana, Kazakhstan

Paper ID: 281

SESSION: NonferrousPoster

11th Intl. Symp. on Sustainable Non-ferrous Smelting & Hydro/Electrochemical Processing

Room: Foyer

Poster Session

[NonferrousPoster1] **STUDY OF DEEP COPPER RECOVERY FROM SLAGS UNDER CONTROLLED OXYGEN PARTIAL PRESSURE**

Maral Dyussebekova¹; Sergey Kvyatkovskiy¹

¹Satbayev University, Almaty, Kazakhstan

Paper ID: 238

SESSION: QuasicrystalsPoster

**11th Intl. Symp. on Quasi-crystals,
Metallic Alloys, Composites, Ceramics
& Nano Materials**

Room: Foyer

Poster Session

[QuasicrystalsPoster1] **STUDY OF PHASE TRANSFORMATIONS OF AN
EXOTHERMIC COMPOSITE MIXTURE BY THERMAL ANALYSIS METHOD**

Svetlana Yefremova¹; Baimakhan Satbaev²; Nurgali Shalabaev³; Sergey Yermishin¹; Serik Satbaev²

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Paper ID: 373

SESSION: RecyclingPoster

**11th Intl. Symp. on Sustainable
Materials Recycling Processes &
Products**

Room: Foyer

Poster Session

[RecyclingPoster1] **RECYCLING POSSIBILITIES OF SiO₂ FROM FOUNDRY WASTE**

Alena Pribulova¹; Peter Futas¹; Patrik Fedorko¹; Peter Blasko¹; Jozef Petrik¹; Brahim Safi²; Mária Mihalikova¹; Marcela Pokusova³

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Paper ID: 51

SESSION: SolidStateChemistryPoster

**5th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development**

Room: Foyer

Poster Session

[SolidStateChemistryPoster1] **SYNTHESIS AND RAMAN SPECTRA OF PALLADIUM
TETRACHLORIDE COMPLEXES WITH ALKALI- AND ALKALINE-EARTH
CHLORIDES**

Alexander Salyulev¹; Emma Vovkotrub¹

¹Institute of High Temperature Electrochemistry, Ural Branch of Russian Academy of Science, Ekaterinburg, Russian Federation
Paper ID: 12

[SolidStateChemistryPoster2] **SYNTHESIS OF COMPLEX SULFUR(IV) CHLORIDES WITH CERTAIN METAL CHLORIDES**

Alexander Salyulev¹; Emma Vovkotrub¹

¹Institute of High Temperature Electrochemistry, Ural Branch of Russian Academy of Science, Ekaterinburg, Russian Federation

Paper ID: 13

[SolidStateChemistryPoster3] **ON THE INTERACTION OF AlCl_3 WITH ALKALI METAL CHLORIDES**

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Paper ID: 265

Technical Program Authors Index

A

Aachhera Sugandha: Bioextraction Session (Poster)
Abkaryan Artur: SolidStateChemistryThuPM205, MathematicsThuPM208, MathematicsThuPM207, ModellingThuPM309, ModellingThuPM310, ModellingThuPM311
Advincula Rigoberto Castillo: PolymersWedPM312, PolymersWedPM102
Aghion Eli: AdvancedMaterials Session (Poster)
Ahmad Afiq: GeochemistryTuePM104
Aitkulov Dosmurat: NonferrousWedPM311, SummitPlenaryWedPM414
Alam Parvej: AdvancedMaterialsThuPM208
Aldelaimi Tahrir: MedicineTuePM311
Alexandrino Pinheiro Miriane: Composite Session (Poster)
Alexandrov Dmitri: MathematicsThuPM206
Almayyahi Basim: AdvancedMaterialsThuPM312
Almeida Mário Sérgio De Souza: Composite Session (Poster)
Alvarez Noe: NanotechnologyWedPM311
Amarasekara Ananda: PolymersTuePM207
Andruh Marius: PhysicalThuPM311, PhysicalThuPM310
Angelini Ivana: GeochemistryTuePM103
Ansaloni Alberto: Coating Session (Poster)
Antrekowitsch Helmut: AdvancedMaterialsTuePM103, AdvancedMaterialsTuePM205
Antrekowitsch Juergen: CarbonThuPM102, CarbonThuPM101
Antunes Andriê: MedicineWedPM206, MiningWedPM312
Apanasov Boris: MathematicsWedPM206
Apaydin Kadir: PolymersTuePM311
Araújo Alinne: MiningWedPM309, MineralWedPM206
Araújo Caroline: BatteryThuPM206
Araujo Braian: CompositeThuPM103
Araujo Gois Gabriela: BatteryThuPM208
Artemyev Evgeniy: ModellingThuPM309, ModellingThuPM310, ModellingThuPM311
Artoli Gilberto: GeochemistryTuePM103
Arzt Eduard: CompositeTuePM103
Assis Paulo: CompositeThuPM103, CompositeThuPM206, BatteryThuPM208, MineralWedPM208, MineralWedPM104, IronWedPM208, IronWedPM102
Aster Philip: CarbonThuPM102
Aumann Robert J.: SummitPlenaryTuePM520
Ayoub Anuor: EnergyWedPM205
Ünsal Hakan: AdvancedMaterialsTuePM207, AdvancedMaterialsWedPM102

B

Babushkin Anatoly: MathematicsThuPM208, MathematicsThuPM207
Bakenov Zhumabay: BatteryThuPM207
Bakhtiar Balqis: GeochemistryTuePM104
Bakrayeva Akbota: Metals Session (Poster)
Baladad Karlo Leandro: MineralWedPM102, MineralWedPM103
Balan Iolanta: PhysicalThuPM310
Barbosa Nascimento Damares Da Cruz: CompositeThuPM104
Baro Nello: Coating Session (Poster)
Barta Andrej: OxidativeTuePM208
Barvitskiy Pavlo: AdvancedMaterialsTuePM207, AdvancedMaterialsTuePM312, AdvancedMaterialsWedPM102
Batyrbekuly Dauren: BatteryThuPM207
Büchner Bernd: AdvancedMaterialsWedPM104
Ben-Attia Mossadok: BiomaterialsThuPM101
Ben-Hur Da Silva Figueiredo André: CompositeTuePM104, Composite Session (Poster)
Berdikulova Feruza: NonferrousWedPM312
Bilorusets Viktor: AdvancedMaterialsWedPM102
Biocanin Rade: AdvancedMaterialsThuPM310, AdvancedMaterialsThuPM311
Blasko Peter: ModellingMaterials Session (Poster)
Boey Azrina: GeochemistryTuePM104, GeochemistryTuePM205
Boku Shogen: OxidativeWedPM207
Boyer Cyrille: PolymersWedPM206
Bratasanu Julie: PolymersTuePM310
Brodts Alexander: MineralWedPM101
Brusilova Alena: AdvancedMaterialsTuePM206
Brzezinski Marcin: ModellingMaterials Session (Poster)
Bultmann Martin: PharmaceuticalTuePM102, PharmaceuticalTuePM205, PharmaceuticalTuePM206
Bunin Igor: Mineral Session (Poster)
Burgos María Esther: ModellingMaterialsWedPM312

C

Campos Denilson Gomes: Carbon Session (Poster)
Cardoso Marcia: CompositeWedPM312
Carneiro Guimarães Cleidson: Composite Session (Poster)
Caro Dario: BiotechnologyWedPM102
Carolino Elisangela Ferruci: EconomyTuePM207
Casetta Mathilde: PolymersTuePM310
Cassiano Nascimento Lucio Fabio: Composite Session (Poster)
Cb Dayananda: CarbonThuPM103
Cebova Martina: OxidativeTuePM208
Cesar Rodrigues Nogueira Afonso: EnergyWedPM207, EnergyWedPM208, EnergyWedPM309, EnergyWedPM310, EnergyWedPM311, EnergyWedPM312, EnergyThuPM101, EnergyThuPM102, EnergyThuPM103, EnergyThuPM104,

EnergyThuPM205, EnergyThuPM206, EnergyThuPM207, EnergyThuPM208,
 EnergyThuPM309, NanotechnologyWedPM312
Chang Yu-Chia: NanotechnologyWedPM309
Chanturiya Valentine: Mineral Session (Poster)
Chashechkin Yuli: SolidStateChemistryThuPM101, SolidStateChemistryThuPM102,
 SolidStateChemistryThuPM103
Chaubey Nidhi: SolidStateChemistryThuPM208
Chen Armstrong: LawsTuePM309
Chen Meng-Hsin: AdvancedMaterialsTuePM208, NanotechnologyWedPM310
Chen Yuzhen: MoltenWedPM102
Chenu Jessica: EconomyTuePM102
Cho Jeong-Ho: Composite Session (Poster)
Choi Sun-Yong: Composite Session (Poster)
Chung Hyun Joon: Energy Session (Poster)
Ciechanover Aaron: SummitPlenaryTuePM102
Clay Rios Da Silva Alisson: CompositeWedPM312, CompositeThuPM104
Collignon Pierre: ManufacturingWedPM311
Colmán Gaona Nathalia María: LawsTuePM311
Comunetti Angelo: PharmaceuticalTuePM207
Coura Dimas: CompositeThuPM206
Covaliova Olga: PhysicalThuPM310
Cruz John Kenneth: MineralWedPM103
Cui Feichen: Polymers Session (Poster)
Cunha Bruno: CompositeTuePM312, CompositeWedPM104

D

Da Silva Edna: AdvancedMaterials Session (Poster)
Dal Zio Luigi: Coating Session (Poster)
Danilov Valentin: SolidStateChemistryThuPM206
Das Raj: ManufacturingWedPM310, MultiscaleThuPM104
De Melo Sarah: CompositeWedPM103, CompositeTuePM207
De Paula Dias Clarissa: CompositeWedPM206, CompositeTuePM312,
 CompositeWedPM104
Devapati Rupesh: AdvancedMaterials Session (Poster)
Devin Leonid: AdvancedMaterialsTuePM312, AdvancedMaterialsWedPM102
Devyatkin Sergei: Molten Session (Poster)
Dietrich Sabine: GeochemistryTuePM311
Diniz Igor: MineralWedPM208, MineralWedPM104
Djuric Tihomir: AdvancedMaterialsThuPM310, AdvancedMaterialsThuPM311
Dmitriev Andrey: IronWedPM205, IronWedPM206
Do Socorro Maria: Composite Session (Poster)
Dube Francis: AgroforestryThuPM309
Duca Gheorghe: PhysicalThuPM311, PhysicalThuPM310
Dushyantha Nimila: MineralWedPM207
Dutrow Barbara: GeochemistryTuePM101, SummitPlenaryThuPM517

Dytianquin Norman: EconomyTuePM205, EconomyTuePM206
Dyussebekova Maral: Nonferrous Session (Poster)

E

Esmaeili Abdollah: EnergyWedPM207, EnergyWedPM208, EnergyWedPM309, EnergyWedPM310, EnergyWedPM311, EnergyWedPM312, EnergyThuPM101, EnergyThuPM102, EnergyThuPM103, EnergyThuPM104, EnergyThuPM205, EnergyThuPM206, EnergyThuPM207, EnergyThuPM208, EnergyThuPM309, NanotechnologyWedPM312, EnergyThuPM310, MiningWedPM311, EnergyThuPM311
Eum Min-Ju: Composite Session (Poster)

F

Farias Lazaro: MiningWedPM310, MineralWedPM206, MedicineWedPM206
Fedorko Patrik: ModellingMaterials Session (Poster)
Fernandes Francis V: MathematicsThuPM309, MathematicsThuPM310
Ferracin Ricardo José: EconomyTuePM207
Filip Petru: PhysicalThuPM310
Filonov Alexander: SolidStateChemistryThuPM205, SolidStateChemistryThuPM206, MathematicsThuPM208, MathematicsThuPM207, ModellingThuPM309, ModellingThuPM310, ModellingThuPM311, MathematicsThuPM205, ModellingThuPM312, MedicineTuePM312
Foster C. T. (Tom): GeochemistryTuePM208
Fraga Silva Marlton: CompositeThuPM102
França Monteiro Manoel Vinícius: Composite Session (Poster)
Frank Joachim: SummitPlenaryThuPM102
Frasson Davide: Coating Session (Poster)
Freckelton Ian: LawsTuePM103, LawsTuePM205
Friedler Assaf: PharmaceuticalTuePM104
Fukui Koji: OxidativeWedPM310, OxidativeTuePM205, OxidativeTuePM207, OxidativeThuPM101, OxidativeTuePM104
Fung Phil: BiocharThuPM309
Futas Peter: AdvancedMaterialsTuePM206, ModellingMaterials Session (Poster)

G

Gabrisova Zuzana: AdvancedMaterialsTuePM206
Gao Weiping: PolymersThuPM208
Gardas Ramesh: CorrosionThuPM309
Garzon Laura: EnergyThuPM310, MiningWedPM311, EnergyThuPM311
Ge Jin: PolymersWedPM312

Gevorkyan Edwin: AdvancedMaterialsTuePM312
Ghosh Sayantan: PolymersThuPM205
Gierlotka Stanislaw: PhysicalThuPM309
Gohy Jean-François: PolymersTuePM310
Gomes Denilson: CompositeThuPM206
Gon Masayuki: PolymersTuePM309
Gonçalves Renato: BatteryThuPM206
Gordon Andrew: AgroforestryThuPM309
Gowda Made: CarbonThuPM103
Graças Silva Da Silva Naylanda: CompositeWedPM312
Granato Leonardo: MineralWedPM208, MineralWedPM104
Gu Jianfeng: ManufacturingWedPM310
Gu Kunru: MedicineTuePM309
Guerra Wilson José: MineralWedPM208, MineralWedPM104
Guimarães Júnior José Carlos: CompositeTuePM311

H

Haemer Robert: LawsTuePM310
Hajnys Jiri: AdvancedMaterialsTuePM206
Hamrouni Nada: BiomaterialsThuPM101
Han Byungchan: AdvancedMaterialsThuPM205
Han Ting: PolymersTuePM104
Harakawa Yoshiaki: OxidativeThuPM103, OxidativeTuePM309, OxidativeTuePM312, OxidativeThuPM102, OxidativeWedPM310, OxidativeWedPM102, OxidativeWedPM312, OxidativeThuPM104, OxidativeThuPM101, OxidativeTuePM104
Harris Gerard: Biochar Session (Poster)
Henni Amr: AdvancedMaterialsTuePM309, MoltenWedPM101
Henry Darrell: GeochemistryTuePM207
Hirano Shigeru: OxidativeTuePM102, OxidativeTuePM311, OxidativeWedPM104, OxidativeTuePM310, OxidativeWedPM101, OxidativeWedPM206, OxidativeWedPM208, OxidativeThuPM101, OxidativeTuePM104, OxidativeWedPM311, OxidativeTuePM206, OxidativeWedPM103
Hičák Michal: AdvancedMaterialsWedPM102
Honorato Muella Peixoto Plínio: CompositeThuPM102
Hoshino Hideaki: IronWedPM101
Householder Megan: GeochemistryTuePM310
Howard Thomas Wolfgang: NonferrousWedPM310

I

Ichikawa Kazuhira: IronWedPM102
Ifandi Elena: GeochemistryTuePM104, GeochemistryTuePM205, Geochemistry Session (Poster)

Iguchi Erika: OxidativeWedPM207
Ikeda Katsuhisa: OxidativeTuePM103
Inglese Federico: PharmaceuticalTuePM103
Inufusa Haruhiko: OxidativeTuePM102, OxidativeThuPM103, OxidativeTuePM309, OxidativeTuePM312, OxidativeThuPM102, OxidativeTuePM311, OxidativeWedPM310, OxidativeWedPM102, OxidativeWedPM312, OxidativeWedPM104, OxidativeTuePM310, OxidativeWedPM101, OxidativeWedPM206, OxidativeWedPM208, OxidativeThuPM104, SummitPlenaryTuePM205, OxidativeThuPM101, OxidativeTuePM104, SummitPlenaryTuePM414, OxidativeTuePM103, OxidativeTuePM101, OxidativeTuePM206, OxidativeWedPM103
Ishida Tomoya: OxidativeWedPM103
Ishigami Itsuo: IronWedPM101
Isidro Josenildo: MiningWedPM309
Ivanenko Aleksandr: SolidStateChemistryThuPM205, MathematicsThuPM208, MathematicsThuPM207, MathematicsThuPM205, ModellingThuPM312, MedicineTuePM312

J

J. Alter Harvey: SummitPlenaryTuePM413
Jacintho Lopes Thomaz: CompositeTuePM102, CompositeWedPM102, CompositeTuePM310, CompositeThuPM101, CompositeThuPM207, CompositeWedPM310
Jakóbczak Dariusz Jacek: EnergyWedPM206
Janecek Milos: MultiscaleThuPM101
Jangarun Haezan: GeochemistryTuePM104, Geochemistry Session (Poster)
Jehl Jean-Philippe: BiomaterialsThuPM103
Jimenez Maude: PolymersTuePM310, PolymersTuePM311
Joseph Davis: OxidativeWedPM104, OxidativeTuePM310, OxidativeWedPM101, OxidativeWedPM206, OxidativeWedPM208, SummitPlenaryTuePM414, SummitPlenaryTuePM208, OxidativeTuePM103, OxidativeTuePM206, OxidativeWedPM103
Junior Édio: CompositeTuePM312, CompositeWedPM104

K

Kablanbekov Askhat: NonferrousWedPM312
Kalaitzidis Stavros: Geochemistry Session (Poster)
Kameda Tomoshi: OxidativeWedPM207
Kapsalamova Farida: AdvancedMaterialsWedPM101
Kaput Jim: BiotechnologyWedPM104
Kariyawasam Rohan: LawsTuePM206
Karpets Myroslav: AdvancedMaterialsWedPM208, AdvancedMaterialsTuePM104, AdvancedMaterialsWedPM104, AdvancedMaterialsTuePM312,

AdvancedMaterialsWedPM102
Kashyap Vishnu: MultiscaleThuPM104
Kato Taichi: PolymersTuePM309
Kato Yugo: OxidativeTuePM207
Kauffman Louis: MathematicsTuePM102, MathematicsTuePM101,
 MathematicsTuePM205, MathematicsTuePM207, MathematicsWedPM101,
 MathematicsWedPM103, MathematicsWedPM208, SummitPlenaryThuPM520
Kawabata Hirotoishi: IronWedPM102
Kerrache Alban: PolymersTuePM310
Kervalishvili Paata: MedicineTuePM310
Kethamkuzhi Aiswarya: AdvancedMaterialsWedPM104
Khabarova Irina: Mineral Session (Poster)
Khanna Sanjeev: AdvancedMaterials Session (Poster)
Kimura Go: PharmaceuticalTuePM101
Kluge Robert: AdvancedMaterialsWedPM104
Knapek Michal: MultiscaleThuPM102
Koleva Ana: ModellingMaterialsWedPM311
Konadu Nana Yaw: EconomyTuePM208
Kongoli Florian: SummitPlenaryTuePM101, SummitPlenaryWedPM101,
 SummitPlenaryThuPM101
Kongoli Florian: SummitPlenaryTuePM414, OxidativeTuePM103, OxidativeTuePM206
Konishi Hirokazu: IronWedPM101, IronWedPM102
Korets Anatoly: SolidStateChemistryThuPM205, MedicineTuePM312
Kostyuk Tatyana: Nanotechnology Session (Poster)
Kostyuk Vladimir: Nanotechnology Session (Poster)
Kumar Nikhil: SolidStateChemistryThuPM208
Kuprin Alexander: AdvancedMaterialsTuePM104
Kusunoki Takeshi: OxidativeTuePM103
Kveglis Lyudmila: ModellingThuPM309, ModellingThuPM310, ModellingThuPM311
Kvinikadze Sophiko: Polymers Session (Poster)
Kvyatkovskiy Sergey: Nonferrous Session (Poster)
Kyung Kyu-Hong: Composite Session (Poster)

L

Lai Daphne Teck Ching: Geochemistry Session (Poster)
Lara De Carvalho Alisson: Composite Session (Poster)
Lebeau Adrien: PolymersTuePM310
Lee Jong-Hyun: Composite Session (Poster)
Lee Yong Hyun: Composite Session (Poster)
Leite Luiz: IronWedPM208
Leite Dos Reis Marcos Allan: Composite Session (Poster)
Leuenberger Hans: PharmaceuticalTuePM207
Lewis Stewart P.: PolymersWedPM101
Li Dejun: Coating Session (Poster)
Li Li: MedicineTuePM309

Li Shaolong: MoltenWedPM102
Li Xiaopeng: MultiscaleThuPM205
Li Ye: MoltenWedPM103
Li Yongxiang: PharmaceuticalTuePM206
Lilova Kristina: GeochemistryTuePM310
Lima Andreza Menezes: CompositeWedPM208
Lima Colaço Wandenbergh: MiningWedPM309, MiningWedPM310
Ling Huang Wei: MedicineWedPM205
Liu Xinyu: PolymersTuePM312
Lokatkina Anastasia: AdvancedMaterialsTuePM207, AdvancedMaterialsTuePM312, AdvancedMaterialsWedPM102
Lopera Henry Alonso Colorado: CompositeTuePM205, CompositeThuPM205
Lopes Lima Paulo Roberto: Composite Session (Poster)
Luo Liang: PolymersWedPM205
Luvie Mario: Coating Session (Poster)
Lv Zepeng: MoltenWedPM103
Lyons James: GeochemistryTuePM310

M

Machado De Azevedo Ary: CompositeWedPM207, CompositeWedPM311, CompositeTuePM208, CompositeWedPM208, CompositeTuePM104, CompositeThuPM102
Madeira Coelho Lisle: CompositeWedPM207, CompositeWedPM311, CompositeTuePM104, CompositeThuPM102, CompositeTuePM311
Magaldi Gioele: Energy Session (Poster)
Magalhães Vinicius: CompositeThuPM206
Magdaluyo Eduardo: MineralWedPM102, MineralWedPM103
Mahadi Abdul Hanif: GeochemistryTuePM104
Maimon Ran: MineralWedPM101
Mandelburger Tamara: EconomyTuePM103
Maniaul Joy Marisol: MineralWedPM103
Manuel Araújo Moreira Fernando: Composite Session (Poster)
Marchenko Anatoliy: AdvancedMaterialsWedPM102
Marcus Rudy: SummitPlenaryWedPM102
Margarida Da Silva José: BatteryThuPM208
Marquis Fernand D. S.: AdvancedMaterialsWedPM206, AdvancedMaterialsTuePM207, AdvancedMaterialsWedPM208, AdvancedMaterialsTuePM104, AdvancedMaterialsTuePM101, AdvancedMaterialsTuePM312, AdvancedMaterialsWedPM102, SummitPlenaryThuPM311
Martin Manfred: GeochemistryTuePM206
Martinez-Pacheco Victor: ManufacturingWedPM312
Mascarenhas Luciana: MineralWedPM208, MineralWedPM104
Mashimo Akira: PharmaceuticalTuePM101
Matias Bentes Elias: CompositeWedPM103, CompositeTuePM207

Matyjaszewski Krzysztof: PolymersTuePM101, SummitPlenaryThuPM414
Maya Santiago: EconomyTuePM104
McNeil Malcolm: LawsTuePM102
Mena Canata Diego: Oxidative Session (Poster)
Mendes Amanda: MineralWedPM208, MineralWedPM104
Mendonça Edinalva: Composite Session (Poster)
Meng Fan: Molten Session (Poster)
Meng Fanling: PolymersWedPM205
Merlino Antonello: OxidativeThuPM205
Meyers Marc: CompositeWedPM206, CompositeWedPM103, CompositeTuePM207, CompositeTuePM312, CompositeWedPM312, CompositeTuePM102, CompositeWedPM102, CompositeTuePM310, CompositeThuPM104, CompositeTuePM205, CompositeThuPM205, CompositeTuePM103, CompositeTuePM101, SummitPlenaryThuPM208
Mihalikova Mária: Recycling Session (Poster)
 Milewski Jaroslaw: MoltenWedPM104
Miolo Giorgia: Pharmaceutical Session (Poster)
Miranda Soares Edson: CompositeWedPM312
Misli Adlina: GeochemistryTuePM104
Mizukoshi Tomoyuki: IronWedPM101
Molenda Janina: SolidStateChemistryThuPM104
Monteiro Sergio: CompositeWedPM207, CompositeWedPM311, CompositeTuePM208, CompositeWedPM208, CompositeTuePM104, CompositeWedPM206, CompositeWedPM103, CompositeTuePM207, CompositeTuePM312, CompositeWedPM104, CompositeThuPM102, CompositeWedPM312, CompositeTuePM102, CompositeWedPM102, CompositeTuePM310, CompositeThuPM101, CompositeThuPM207, CompositeWedPM310, CompositeThuPM104, CompositeTuePM311, CompositeTuePM205, CompositeThuPM205
Moravek Ivan: AdvancedMaterialsTuePM206
Moro Daniela: Coating Session (Poster)
Moshchil Viktor: AdvancedMaterialsTuePM207, AdvancedMaterialsWedPM208, AdvancedMaterialsTuePM104, AdvancedMaterialsWedPM104, AdvancedMaterialsTuePM312, AdvancedMaterialsWedPM102
Muktibodh Arun: MathematicsTuePM311
Munaretto Pierluigi: Coating Session (Poster)
Murakami Shingo: LawsTuePM101

N

Naimanbayev Madali: NonferrousWedPM311
Narciso Murilo Miguel: CompositeWedPM311, CompositeTuePM311
Narvaez James Albert: MineralWedPM103
Navrotsky Alexandra: GeochemistryTuePM310
Nelson Donna: SummitPlenaryTuePM517
Neuba Lucas: CompositeWedPM103, CompositeTuePM207

Nguyen Anh V.: MineralWedPM205
Nguyen Thi Kim Oanh: OxidativeWedPM205
Nica Simona: PhysicalThuPM310
Nikolova Rositca: ModellingMaterialsWedPM311
Novoselov Konstantin: SummitPlenaryWedPM311
Nurpeissova Arailym: Battery Session (Poster)

O

Obradors Xavier: AdvancedMaterialsWedPM104
Okano Keiichiro: OxidativeTuePM311, OxidativeWedPM311, OxidativeTuePM206
Oliveira Luiz Filipe: Composite Session (Poster)
Omoya Kentaro: OxidativeThuPM103, OxidativeTuePM309, OxidativeTuePM312, OxidativeThuPM102, OxidativeWedPM102, OxidativeWedPM312, OxidativeThuPM104, OxidativeThuPM101, OxidativeTuePM104
Ono Hideki: IronWedPM102
Ord Garnet: MathematicsTuePM312
Ostash Orest: AdvancedMaterialsTuePM104
Ostroot Mark: OxidativeWedPM205
Otake Shuichi: PharmaceuticalTuePM101
Otis Louise: SummitPlenaryThuPM205
Oudadesse Hassane: BiomaterialsThuPM101

P

Paindavoine Simon: EconomyTuePM205
Palosz Bogdan: PhysicalThuPM309
Pan Xiangcheng: PolymersWedPM208
Parcharidis Konstantinos: LawsTuePM104
Park Chasik: Energy Session (Poster)
Park Vinicius: MineralWedPM208, MineralWedPM104
Pascual Juan Inocencio: MineralWedPM205
Pastorin Cinzia: Coating Session (Poster)
Patil Dhanraj: IronWedPM207, IronWedPM104, CarbonThuPM103
Pechanova Olga: OxidativeTuePM208
Pereira Junio Raí Felipe: Composite Session (Poster)
Peryanova Olga: MedicineTuePM312
Petkova-Yankova Nevena: ModellingMaterialsWedPM311
Petrik Jozef: ModellingMaterials Session (Poster)
Petru Jana: AdvancedMaterialsTuePM206
Pidaparti Ramana: Corrosion Session (Poster)
Pimenta Natália: AdvancedMaterials Session (Poster)
Plata Mark Jefferson: MineralWedPM102
Podhurska Viktoriya: AdvancedMaterialsTuePM104

Poerio Aurelia: BiomaterialsThuPM104
Pokusova Marcela: AdvancedMaterialsTuePM206, ModellingMaterials Session (Poster)
Pondé Weber Ricardo: CompositeWedPM104
Ponnusamy Ettigounder (Samy): PolymersWedPM311
Ponomarov Semyon: AdvancedMaterialsTuePM104, AdvancedMaterialsWedPM104, AdvancedMaterialsTuePM312, AdvancedMaterialsWedPM102
Popovic Djordje: AdvancedMaterialsThuPM310, AdvancedMaterialsThuPM311
Potapov Alexei: Molten Session (Poster)
Potapov Pavel: AdvancedMaterialsTuePM104
Potapovich Alla: Nanotechnology Session (Poster)
Poubel Mendonça Da Silveira Pedro Henrique: CompositeWedPM207, CompositeWedPM311, CompositeTuePM208, CompositeWedPM208, CompositeTuePM104, CompositeThuPM102
Povuação Albeds Mesquita: CompositeWedPM311
Pramanik Krishna: PolymersThuPM205, BiomaterialsThuPM102
Premm Wolfgang: NonferrousWedPM309
Pribulova Alena: AdvancedMaterialsTuePM206, ModellingMaterials Session (Poster)
Prikhna Tetiana: AdvancedMaterialsWedPM206, AdvancedMaterialsTuePM207, AdvancedMaterialsWedPM208, AdvancedMaterialsTuePM104, AdvancedMaterialsWedPM104, AdvancedMaterialsTuePM312, AdvancedMaterialsWedPM102
Prysiashna Olena: AdvancedMaterialsTuePM207, AdvancedMaterialsWedPM102
Puig Teresa: AdvancedMaterialsWedPM104

Q

Qian Ma: ManufacturingWedPM310
Qin Xuan: PolymersThuPM102
Qiu Yunyan: PolymersTuePM206
Qiu Zijie: PolymersThuPM103
Qu Jili: GeomechanicsThuPM102
Quan Haocheng: CompositeTuePM103, CompositeWedPM101
Quinagoran Dionella Jitka: MineralWedPM103
Qurashi Ahsan Ul Haq: AdvancedMaterialsWedPM205

R

Radic-Schilling Sergio: AgroforestryThuPM309
Rakhmanova Aizhan: Nanotechnology Session (Poster)
Rakotomanana Lalaonirina: MultiscaleThuPM103, ModellingMaterialsWedPM309
Ramimoghdam Donya: ManufacturingWedPM309
Realdon Nicola: Coating Session (Poster)
Reiter Russel: OxidativeWedPM309

Ribeiro Nascimento George: MiningWedPM312
Roblegg Eva: PharmaceuticalTuePM102, PharmaceuticalTuePM205
Rodrigues Guimarães Antônio Carlos: CompositeWedPM207, CompositeWedPM311, CompositeTuePM311
Rodrigues Soares Dwight: MiningWedPM309, MiningWedPM310, MineralWedPM206, MedicineWedPM206
Romanciuc Lidia: PhysicalThuPM310
Romanenko Yaroslav: AdvancedMaterialsWedPM206
Romero Candela: PharmaceuticalTuePM206
Ross Nancy: GeochemistryTuePM102
Rossi Davide: Coating Session (Poster)
Rowlands Peter: MathematicsTuePM104
Ryazantseva Maria: Mineral Session (Poster)
Rychev Sergiy: AdvancedMaterialsWedPM102

S

Safi Brahim: Recycling Session (Poster)
Salisbury Jeffrey: OxidativeWedPM205
Salyulev Alexander: SolidStateChemistry Session (Poster)
Samyn Fabienne: PolymersTuePM310, PolymersTuePM311
Sanei Hamed: BiocharThuPM310
Santilli Ruggero Maria: MathematicsTuePM309, MathematicsTuePM310, PharmaceuticalTuePM103
Satbaev Baimakhan: Quasicrystals Session (Poster)
Satbaev Serik: Quasicrystals Session (Poster)
Sato Yuki: OxidativeWedPM104, OxidativeTuePM310, OxidativeWedPM101, OxidativeWedPM206, OxidativeWedPM208, OxidativeThuPM101, OxidativeTuePM104, OxidativeWedPM103
Scarpini Candido Verônica: CompositeWedPM312, CompositeThuPM104
Scheiblehner David: AdvancedMaterialsTuePM103, AdvancedMaterialsTuePM205
Scherr Christoph: AdvancedMaterialsTuePM103, AdvancedMaterialsTuePM205
Schiller Christoph: MathematicsWedPM208
Schuhmacher Markus: PharmaceuticalTuePM206
Schweiger Jonas: AdvancedMaterialsThuPM206
Serbeniuk Tetiana: AdvancedMaterialsWedPM208, AdvancedMaterialsTuePM104
Setti De Sousa Laura: CompositeTuePM104
Shalabaev Nurgali: Quasicrystals Session (Poster)
Sharma Amita: AgroforestryThuPM310
Sharma Deepika: CompositeTuePM309
Sharma Ramaswamy: OxidativeWedPM309
Sharon Michal: BiotechnologyWedPM103
Shechtman Dan: SummitPlenaryWedPM205
Shen Andy H.: GeochemistryTuePM312
Shestakov Nikolay: SolidStateChemistryThuPM205, SolidStateChemistryThuPM206, ModellingThuPM312, MedicineTuePM312

Shi Hongbo: Corrosion Session (Poster)
Shi Yuedong: AdvancedMaterials Session (Poster)
Shin Hyo-Joon: Composite Session (Poster)
Shtefan Viktoriia: AdvancedMaterialsTuePM104
Shutova Tatsiana: Nanotechnology Session (Poster)
Silva Douglas: CompositeWedPM206, CompositeWedPM102, CompositeTuePM310
Silva Guilherme: Carbon Session (Poster)
Silva Maria Manuela: BatteryThuPM206
Singh Rajeshwar: CorrosionThuPM310
Singh Ravi Kumar: SolidStateChemistryThuPM207
Skrobas Kazimierz: PhysicalThuPM309
Smalyukh Ivan: MathematicsThuPM311
Soares Araujo Gislaine: CompositeThuPM103
Sokolovskaya Alisa: OxidativeThuPM207
Solc Marek: ModellingMaterials Session (Poster)
Soltabayev Baktiyar: ModellingMaterials Session (Poster)
Song Jianxun: MoltenWedPM102
Sonntag Cornelia: PharmaceuticalTuePM102
Sousa Lima Eduardo: CompositeWedPM208
Souza Assis Francisco: MiningWedPM309, MiningWedPM310, MineralWedPM206, MedicineWedPM206, MiningWedPM312
Souza Trindade Derick Horrana: CompositeTuePM208, CompositeThuPM102
Starik Sergii: AdvancedMaterialsWedPM206
Starodubtsev Yuri: IronWedPM103
Stefanaki Maria: LawsTuePM207
Stefanov Sonja: AdvancedMaterialsThuPM310, AdvancedMaterialsThuPM311
Steinlechner Stefan: NonferrousWedPM309, NonferrousWedPM310
Stelmakh Svitlana: PhysicalThuPM309
Stratiychuk Denys: AdvancedMaterialsWedPM206
Su Vin-Cent: NanotechnologyWedPM309
Subramani Tamilarasan: GeochemistryTuePM310
Sufri Wadina: GeochemistryTuePM104
Suga Takeo: PolymersTuePM208
Sugiyama Yoichiro: OxidativeWedPM104, OxidativeTuePM310, OxidativeWedPM101, OxidativeWedPM206, OxidativeWedPM208, OxidativeThuPM101, OxidativeTuePM104, OxidativeWedPM103
Sukurov Bulat: NonferrousWedPM312
Sun Huatong: MedicineTuePM309
Suzuki Hayate: OxidativeTuePM207
Sverdun Vladimir: AdvancedMaterialsWedPM208, AdvancedMaterialsTuePM104
Swierczek Konrad: AdvancedMaterialsTuePM311, AdvancedMaterialsTuePM310
Szydio Andrzej: SummitPlenaryWedPM208

T

Tai Yu-Sheng: NanotechnologyWedPM310
Tan Cher Ming: BatteryThuPM205
Tanaka Kazuo: PolymersTuePM309
Tang Ben Zhong: PolymersWedPM205, PolymersWedPM104
Tang Charles: EconomyTuePM101, SummitPlenaryWedPM517
Tang Youhong: PolymersWedPM309
Tangirbergen Abylay: ModellingMaterials Session (Poster)
Tatarko Peter: AdvancedMaterialsWedPM102
Tavernarakis Nektarios: SummitPlenaryWedPM520
Teramoto Shinto: LawsTuePM101
Theron Coll: LawsTuePM208
Thevathasan Naresh: AgroforestryThuPM309
Thoma Leonard: EconomyTuePM205
Thomas Douglas D.: OxidativeThuPM206
Thomas Sabu: AdvancedMaterialsWedPM103
Tian Wei: PolymersThuPM101
Travincas Rafael: Composite Session (Poster)
Trell Erik: MathematicsWedPM205
Trushin Sergey: OxidativeWedPM205
Trushina Eugenia: OxidativeWedPM205
Tsepelev Vladimir: IronWedPM103
Tsepeleva Nadezhda: IronWedPM103
Tsikouras Basilios: GeochemistryTuePM104, GeochemistryTuePM205
Tsverava Daviti: Polymers Session (Poster)
Tungpalan Djoan Kate: MineralWedPM103
Turkevych Volodymyr: AdvancedMaterialsWedPM206

U

Uflyand Igor: Composite Session (Poster)
Umirov Nurzhan: BatteryThuPM207
Urban Marek: PolymersWedPM207
Uruci Renata: Coating Session (Poster)
Usui Tateo: IronWedPM101, IronWedPM102

V

Vanishvili Aleksandre: Polymers Session (Poster)
Vayssilov Georgi: ModellingMaterialsWedPM310
Vecchi Patrizia: Coating Session (Poster)
Velardo Emanuele: MathematicsTuePM309, PharmaceuticalTuePM103
Ventura Anton Justo: MineralWedPM102
Vidale Massimo: GeochemistryTuePM103
Vilela Carla: AdvancedMaterialsTuePM102

Vitkin Dmitry: IronWedPM205
Vitkina Galina: IronWedPM205, IronWedPM206
Vlad Roxana: AdvancedMaterialsWedPM104
Vougiouklis Thomas: PharmaceuticalTuePM103
Vovkotrub Emma: SolidStateChemistry Session (Poster)
Vrankova Stanislava: OxidativeTuePM208

W

Wang Chengsi: GeochemistryTuePM312
Wang Jianfeng: AdvancedMaterialsWedPM207
Wang Wuyi: GeochemistryTuePM309
Wang Zhenhua: PolymersThuPM207
Watanabe Motoki: OxidativeWedPM207
Winiarski Jacek: AdvancedMaterialsTuePM310
Winiarz Piotr: AdvancedMaterialsTuePM310
Witting Madeleine: PharmaceuticalTuePM206
Woo Seongwoo: MathematicsWedPM207, MultiscaleThuPM206
Wu Kai-Ming: IronWedPM103
Wu Wei: GeomechanicsThuPM101

X

Xie Hui: GeochemistryTuePM104

Y

Yamagishi Kento: PolymersTuePM103
Yan Jiajun: PolymersTuePM205
Yang Changduk: AdvancedMaterials Session (Poster)
Yang Fuhua: OxidativeThuPM103, OxidativeTuePM309, OxidativeTuePM312, OxidativeThuPM102, OxidativeWedPM310, OxidativeWedPM102, OxidativeWedPM312, OxidativeWedPM104, OxidativeTuePM310, OxidativeWedPM101, OxidativeWedPM206, OxidativeWedPM208, OxidativeThuPM104, OxidativeThuPM101, OxidativeTuePM104, SummitPlenaryTuePM414, OxidativeTuePM103, OxidativeTuePM206, OxidativeWedPM103
Yang Jui-Cho: AdvancedMaterialsTuePM208
Yang Kai: GeochemistryTuePM104
Yang Peixia: Molten Session (Poster)
Yefremova Svetlana: NonferrousWedPM312
Yeon Jeong-Mi: Composite Session (Poster)

Yergaliuly Gani: ModellingMaterials Session (Poster)
Yermishin Sergey: Quasicrystals Session (Poster)
Yokoyama Yujiro: IronWedPM101
Yu Ang-Yang: PharmaceuticalTuePM208, AdvancedMaterialsThuPM207
Yu Angyang: AdvancedMaterialsThuPM309
Yu Jin: MedicineTuePM309
Yue Qiang: PolymersWedPM205

Z

Zahra Syeda Anchel: Biotechnology Session (Poster)
Zanini Marchi Belayne: CompositeWedPM207, CompositeTuePM104,
CompositeWedPM103, CompositeTuePM207
Zarubina Anastasiya: Composite Session (Poster)
Zavradashvili Nino: Polymers Session (Poster)
Zekri Atef: CorrosionThuPM311
Zhang Qi: PolymersThuPM206
Zhang Xinghong: PolymersWedPM310
Zhang Zhelin: PolymersThuPM101
Zhao Junyu: MedicineTuePM309
Zhao Zheng: PolymersThuPM104
Zhinzhilo Vladimir: Composite Session (Poster)
Zhong Haozhang: ManufacturingWedPM310
Zolotykh Maxim: IronWedPM205, IronWedPM206
Zuanon Marika: Coating Session (Poster)

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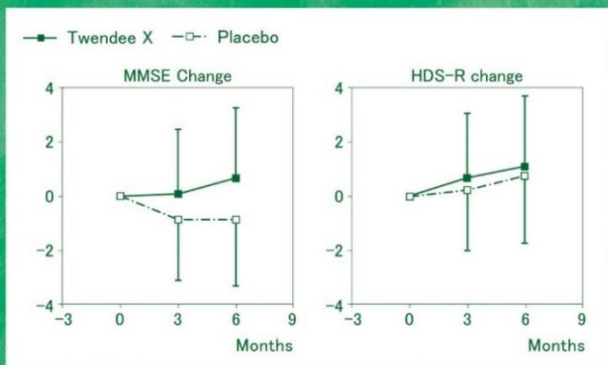
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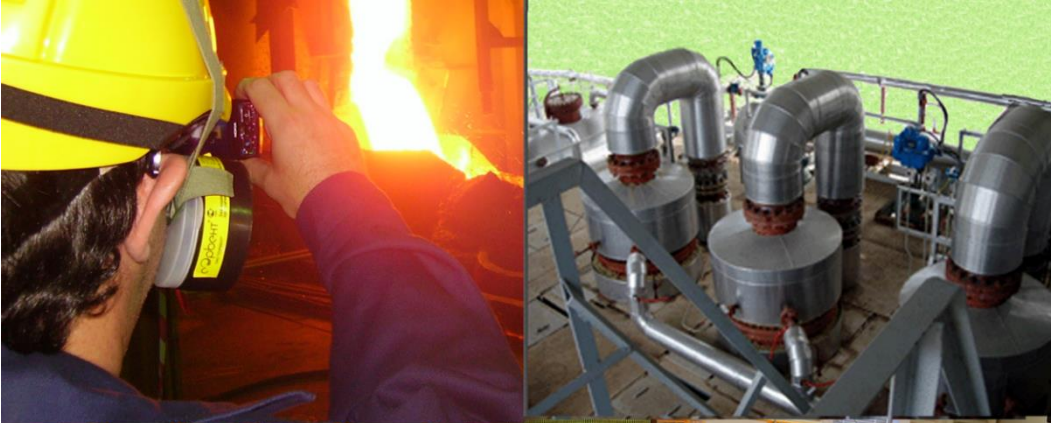
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