

THE 20th INTERNATIONAL CONGRESS ON MARINE CORROSION AND FOULING

JUNE 16-21, 2024 | Guangzhou, China

Programme

(Version June 7)

Organized by: The Comité International Permanent pour la Recherche sur la Préservation des Matériaux en Milieu Marin (COIPM)

> Hosted by: South China University of Technology (SCUT)

Date: Sunday	y, June 16, 202	4 At White Swan Hotel			
10:00-22:00		Registration (Lobby)			
18:00-20:00	W	Velcome Reception (Silk Road Restaurant, Food & Beverage Provided)			
Date: Monda	Date: Monday, June 17, 2024 At White Swan Hotel, Grand Ballroom				
8:30-12:00		Registration			
8:30-8:50		Opening Ceremony			
		Host: Guangzhao Zhang	1		
8:50-9:30	Plenary 1	Elasnin as strong and effective anti-biofilm agent Pai Yuan Oian (The Hong Kong University of Saianae and Tachnalogy)	P1		
Sossion Shin	fouling mana	account & Antifouling contings			
Chair: Euger	ne Georgiades	gement & Anthouning coatings			
0.20 10.00	Varmata 1	In-water cleaning-implications for environmental stewardship	D2		
9.30-10.00	Keynote I	- Eugene Georgiades (Environmental Protection Authority, New Zealand)	PZ		
		Effective biofouling management strategies: the challenges with ship-specific			
10:00-10:20	Oral 1	functional specifications and coating selection	P3		
		— Ralitsa Mihaylova (Safinah Group)			
		A mechanically robust silicon-based polymer system to meet the needs of			
10 20 10 40	0.12	sustainable fouling protection for the marine industry	D4		
10:20-10:40	Oral 2	- Chunyang Wei (Suzhou Institute of Nano-tech and Nano-Bionics, China	P4		
		Academy of Sciences)			
10:40-10:55		Coffee Break			
		Transition to waterborne antifouling coatings-an effective approach to			
10:55-11:25	Keynote 2	combat air pollution	P5		
		— Aslan Esmurziev (Jotun A/S)			
		Carrier systems for controlled release of biocides from antifouling coatings, a			
11:25-11:45	Oral 3	medetomidine case study	P6		
	_	— Dan Isaksson (I-tech AB)	_		
		Reduction of GHG emissions by application of low-friction marine paints			
11:45-12:05	Oral 4	— Shuiwan Jiang (Luoyang Ship Material Research Institute)	P7		
		Lunch (Not Provided)			
Sassian: Now	analytical ma	thads for antifouling/anticorrosion & Biomimotic antifouling strategy			
Chair Avel I	anaryucar me Rosenhahn	thous for antifouning/anticorrosion & Diominicute antifouning strategy			
	tosennann	Bridging the gap between lab and field - dynamic short term field immersion			
14:00-14:30	Keynote 3	A vel Rosenhahn (Ruhr University Rochum)	P8		
		- Axer Rosemann (Run Oniversity Boenun)			
14:30-14:50	Oral 5	3D dynamic characterization of bacterial adhesion	Р9		
		— Xiangjun Gong (South China University of Technology)			
		On the predictive capabilities of surface tests on foul release/antifouling			
14:50-15:10	Oral 6	performance in marine coatings	P10		
		— Ilia Rodionov (GIT Coatings)			
15:10-15:30	Oral 7	A new method for measuring adhesion in paint coatings	P11		
15.10-15.50		- Martha Seim Gunstad (Norwegian University of Science and Technology)	1 1 1		

15:30-15:50	Oral 8	A study on artificial accelerated aging evaluation of antifouling coatings	P12
15.50 16.05			
15:50-16:05		Collee Break	
16:05-16:35	Keynote 4	Development of bioinspired marine antifouring materials	P13
		Cunguo Lin (Luoyang Ship Material Research Institute)	
16:35-16:55	Oral 9	Coral-inspired antifouling surfaces and multifunctional protective coatings — Huichao Jin (Jilin University)	P14
16:55-17:15	Oral 10	Antifouling surfaces enabled by sulfoxide polymers and photopolymerization	P15
		— Changkui Fu (The University of Queensland)	
		Role of dynamic surface tension of PDMS-PEG surfactant-based PDMS	
17:15-17:35	Oral 11	elastomer coatings on protein adsorption: an insight on the 'ambiguous'	P16
		interfacial properties of fouling release coatings	
		— Elliot Gourlaouen (University of Toulon)	
		Student Night	
19:00-21:00	(for both st	tudents and early career scientists, at Rose Garden Restaurant beside the ver	nue
		hotel, Food& Beverage Provided)	
Date: Tuesda	y, June 18, 202	24 At White Swan Hotel, Grand Ballroom	
8.20 0.10	Dlanam, 2	Antibiofouling: how a polymer brush repels proteins?	D10
8:30-9:10	Plenary 2	— Chi Wu (Shenzhen University)	P18
Session: Biof	ilms and micro	obial fouling & Antifouling coatings	
Chair: Serge	y Dobretsov		
		From epibiosis to microfouling: the composition of marine biofilms on	
9:10-9:40	Keynote 5	different substrates	P19
		— Sergey Dobretsov (Sultan Qaboos University)	
0.40.10.00	0.110	Molecular basis of marine biofilms regulating marine invertebrate settlement	DQ 0
9:40-10:00	Oral 12	— Jinlong Yang (Shanghai Ocean University)	P20
		The barnacle Fistulobalanus albicostatus chemically defends itself against	
10:00-10:20	Oral 13	attachment of the mussel Vignadula atrata	P21
		— Danging Feng (Xiamen University)	
		Optimizing RO membrane cleaning protocols: a chemical insight into	
10:20-10:40	Oral 14	biofouling control and microbial community dynamics	P22
		— Mohammed AL Belushi (Sultan Oaboos University)	
10:40-10:55		Coffee Break	
		Bio-inspired active self-cleaning surfaces via filament-like sweepers array	
10:55-11:25	Keynote 6	— Mingjie Liu (Beihang University)	P23
11.25 11.45	Oral 15	Hydrophilic additives for amphiphilic fouling release coatings	D24
11:25-11:45	Oral 15	— Fabrice Azemar (Université Bretagne Sud)	P24
		Development and application of antifouling coatings based on biodegradable	
11:45-12:05	Oral 16	polymers	P25
		— Shanshan Chen (Xiamen SunRui Ship Coating Co. Ltd)	
		Preparation and properties of hyper-branched polymers for marine anti-	
		biofouling	
12:05-12:25	Oral 17	— Qingyi Xie (South China University of Technology & Guangdong Havev	P26
		Advanced Materials Co. Ltd.)	

Lunch (Not Provided)				
Session: Ecotoxicology and risk management & Antifouling coating Chair: Yanei Wang				
14:00-14:30	Keynote 7	The role of advanced hull coatings in the decarbonization journey of the shipping industry — Albert Camós Noguer (Hempel)	P27	
14:30-14:50	Oral 18	Moving towards eco-friendly long-lasting anti-fouling solutions — Roberto Martins (University of Aveiro)	P28	
14:50-15:10	Oral 19	A study on marine antifouling coatings with enhanced freshwater resistance — Xiaojun Wang (Marine Chemical Research Institute Co., LTD. State Key Laboratory of Marine Coatings)	P29	
15:10-15:30	Oral 20	Encapsulated biocides to achieve minimal environmental pressure from antifouling coatings — Eva Wallström (Encoat ApS)	P30	
15:30-15:50	Oral 21	Identifying the most effective fouling control coatings with the least environmental pressure by Toxic Unit — Lars Ole Kornum (EnCoat ApS)	P31	
15:50-16:05		Coffee Break		
16:05-16:35	Keynote 8	Old inspires new: iodine-doped rubber systems — Yapei Wang (Renmin University of China)	P32	
16:35-16:55	Oral 22	Regulating haloperoxidase-like activity of cerium oxide nanoparticles for marine antifouling performance — Xiaoyan He (Wuhan University of Technology)	P33	
16:55-17:15	Oral 23	Research on antibacterial peptide modified ship surface and its antifouling and anti-corrosion performance — Pan Cao (Yangzhou University)	P34	
17:15-17:35	Oral 24	Investigations into the impact of solvent content and curing conditions in the drying process of condensation curing PDMS films — Tim Raemaekers (Eindhoven University of Technology)	P35	
19:30-21:30	(Poster Presentation (Grand Ballroom) Posters prepared by presenters, hanging time starting from June 17)		
Date: Wedne	sday, June 19,	2024 At White Swan Hotel, Grand Ballroom (Morning)	-	
8:30-9:10	Plenary 3	The influence of calcareous freshwater inflows on corrosion and MIC of steel in seawaters — Robert Melchers	P36	
Session: Mar	ine corrosion			
Chair: Domi	nique Thierry	Nano-composite coatings to against corrosion and application		
9:10-9:40	Keynote 9	— Enhou Han (Institute of Corrosion Science and Technology & South China University of Technology)	P37	
9:40-10:00	Oral 25	Comparative risk assessment of versatile anti-corrosion nanomaterials — Roberto Martins (University of Aveiro)	P38	

10.00-10.20	Oral 26	MIC and protection of marine oil and gas storage and transportation systems	P39
10.00 10.20		— Yingchao Li (China University of Petroleum-Beijing)	137
10:20-10:35		Coffee Break	1
		Biofilm formation and localized corrosion of stainless steel in natural seawater:	
10:35-11:05	Keynote 10	A critical review	P40
		— Dominique Thierry (RISE Research Institutes of Sweden)	
		A novel approach to monitoring waterline corrosion, its inhibition, and the	
11:05-11:25	Oral 27	influencing factors	P41
		— Medhani Pathirana (Deakin University)	
		Influence of copper-containing stainless steel on freshwater biocorrosion and	
11:25-11:45	Oral 28	research on antifouling mechanisms	P42
		— Heting Hong (Institute of Metal Research, Chinese Academy of Science)	
		Lunch (Not Provided)	
		Social Events:	
13:30-20:30		Cantonese Opera Art Exhibition & Guangdong Museum	
		& Zhujiang Beer Museum (Congress Dinner Provided)	
Date: Thurso	lay, June 20, 2	024 At White Swan Hotel, Grand Ballroom	
8.20 0.10	D1	Tackling marine biofouling with non-biocidal coatings	D42
8:30-9:10	Plenary 4	— Christine Bressy (University of Toulon)	P43
Session: Bioadhesion: natural and biomimetic adhesives & Fouling release coatings			
Chair: G. Ju	lius Vancso		
		Biomimetic adhesives in polymer technology: Lessons learned from marine	
9:10-9:40 Ke	Keynote 11	fouling research	P44
		— G. Julius Vancso (University of Twente)	
9.40-10.00	Oral 29	Biopolymer for amphiphilic coatings: Study of bacteria/surfaces interactions	P45
9.40-10.00	01al 27	— Antoine Augias (Université Bretagne Sud)	1+5
		Construction of porphyrin-containing well-defined polymers and their	
10:00-10:20	Oral 30	application in photodynamic antibacterial therapy	P46
		— Weian Zhang (East China University of Science and Technology)	
		Research on silicone-based functional coatings with enhanced static antifouling	
10:20-10:40	Oral 31	properties	P47
		— Jiawen Sun (Institute of Oceanology, Chinese Academy of Sciences)	
10:40-10:55		Coffee Break	
		Demyth mechanisms of microbial corrosion to design microbial corrosion-	
10:55-11:25	Keynote 12	resistant materials	P48
		— Dake Xu (Northeastern University)	
		Effectiveness of soft biocide-free fouling release coatings in dependence on the	
11:25-11:45	Oral 32	Youngs modulus	P49
		— Johann Christian Schaal (Fraunhofer Institute for Manufacturing	117
		Technology and Advanced Materials IFAM)	
		Adhesion behavior of mussels on different surfaces and optimization of anti-	
11:45-12:05	Oral 33	fouling coatings	P50
		- Rongrong Chen (Harbin Engineering University)	

		Preparation and properties of fluorocarbon-based interpenetrating polymer	
12:05-12:25	Oral 34	networks for marine wide temperature range	P51
		— Zixu Zhang (Harbin Engineering University)	
		Lunch (Not Provided)	
Session: Anti	fouling coating	gs & Biofilms and microbial fouling	
Chair: Haesł	in Lee		
14.00 14.20	V (1)	Polyphenolic Adhesive Polymers	D52
14:00-14:30	Keynote 13	- Haeshin Lee (Korea Advanced Institute of Science and Technology)	P52
		Eco-friendly waterborne polyurethanes integrated multiple antifouling	
14:30-14:50	Oral 35	strategies and their synergistic mechanism	P53
		— Yi Zhang (Guangzhou Maritime University)	
		Antifouling biocide release rate measurement-recent advances and continuing	
14:50-15:10	Oral 36	challenges	P54
		— Alistair Finnie (Independent consultant)	
		Field studies of copper release rates inside closed marinas along a salinity	
15:10-15:30	Oral 37	gradient	P55
		— Petter Andreassen (Jotun A/S)	
		Assessing the adhesion properties in multilayer antifouling coatings by shaft-	
15:30-15:50	Oral 38	loaded blister test method	P56
		— Siqi Liu (Norwegian University of Science and Technology)	
15:50-16:05		Coffee Break	
		Recent advances on biofouling and antifouling technologies for offshore	
16:05-16:35	Keynote 14	equipments	P57
	•	— Jizhou Duan (Institute of Oceanology, Chinese Academy of Sciences)	
		Novel eco-friendly fouling release coatings based on polysilazanes	
16:35-16:55	Oral 39	— Dorothea Stübing (Fraunhofer Institute for Manufacturing Technology and	P58
		Advanced Materials IFAM)	
16 55 17 15	0 1 40	The preparation and research of allicin antifouling coatings for marine ranch	D.50
16:55-17:15	Oral 40	— Yakun Li (Shandong Ocean Chemical Industry Scientific Research Institute)	P59
		Metabolism of corrosive microorganisms existing in highly corroded rust	
17:15-17:35	Oral 41	layers in marine environment	P60
		— Yimeng Zhang (Institute of Oceanology, Chinese Academy of Sciences)	
17.25 17.55	Orel 42	Study on low copper intelligent protective coating for marine environment	D61
1/:35-1/:55	Oral 42	— Lankun Liu (Ocean University of China)	P01
Date: Friday	, June 21, 2024	At White Swan Hotel, Grand Ballroom	
Session: New	approaches fo	or fouling control	
Host: Qingyi	Xie		
8.20 0.10	Korrata 15	UVC anti-fouling solution: Next steps in the technological developments	D60
0.30-9:10	Keynole 15	— Bart Salters (Philips Research)	F02
		The antifouling effect of quaternary ammonium salt in long-distance seawater	
9:10-9:30	Oral 43	intake pipeline of cooling system	P63
		— Dongxia Duan (Luoyang Ship Material Research Institute)	

		Study of the impact of the physico-chemical properties of polymer films on	
9:30-9:50	Oral 44	their colonization by microorganisms	P64
		— Cédric Jaffry (Université Bretagne Sud)	
		CMSP/PDMS: A material based on a new sustainable strategy for the	
9:50-10:10	Oral 45	management of marine fouling	P65
		— Yuyi Wang (Shanghai Ocean University)	
		Superior robustness and corrosion resistance in marine antifouling coatings	
10:10-10:30	Oral 46	with hydrophobic features	P66
		— Xuerui Zang (National University of Singapore)	
10.30-10.50		Award Caromony (Rest Oral & Poster Awards)	
10.30-10.30		Award Ceremony (Dest Orai & Foster Awards)	
10.50 11.10		Approximate of Next ICMCE & Closing Coromony	
10:50-11:10		Announcement of Next ICIVICF & Closing Ceremony	

Poster Pres	sentation (Tuesday, June 18, 2024) At White Swan Hotel, Grand Ballroom	
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	— Fabrice Azemar (Université Bretagne Sud)		
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Regulation of Dynamic Covalent Bonds		
	— Chao Wang (Harbin Engineering University)	
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	based on synergistic effect of L-methionine and vanillin	P101
	—Zhenhua Zhang (Harbin Engineering University)	

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