







## International Conference on Directed Self-Assembly and Nanostructured Materials (DSA<sup>2024</sup>)

## October 17<sup>th</sup> and 18<sup>th</sup>, 2024 Grenoble, France

Conference place : MaCI - Maison de la Création et de l'Innovation Université Grenoble Alpes 339 avenue Centrale, 38400 Saint-Martin-d'Hères

Thursday October 17 <sup>th</sup> , 2024		
8:30 a.m.	Registration	
9:00	Welcoming words by	
	<b>Redouane Borsali,</b> Grenoble Alpes University, UGA-CNRS-CERMAV – Grenoble, France	
9:15	Sang Ouk Kim, Korea Adv. Institute of Science & Technology (KAIST), Daejeon, Korea	
	"Block copolymer nanopatterning for semiconductor, IoT and beyond"	
10:00	Caroline Ross, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA	
	"Directed self-assembly of multiblock copolymers in 2D and 3D"	
10:45	Flash Presentations	
11:00	Coffee Break & POSTERS	
11:30	Redouane Borsali, Grenoble Alpes University, UGA -CNRS-CERMAV, France	
	"Self-assembly of sugar-based bloc copolymers"	
12:15	Lunch On site	
2:00 p.m.	Makoto Ouchi, Kyoto University, Kyoto, Japan	
	"Significant impacts of urea-based junction in PS-PMMA block copolymer on phase	
	separation"	
2:45	Takuya Isono, Hokkaido University, Sapporo, Japan	
	"Diverse PS-b-PMMA derivatives via post-polymerization modifications"	
3:30	Coffee Break & POSTERS	
4:00	Makoto Muramatsu, Tokyo Electron, Tokyo, Japan	
	"Multi-patterning holes by chemo-epitaxy process and the scalability"	
4:45	Hyeong Min Jin, Chungnam National University , Daejeon, Korea	
	"Directed molecular self-assembly through photo-thermal processes"	
5:00	"Directed molecular self-assembly through photo-thermal processes"  Kenji Yoshimoto, Kanazawa University, Kanazawa, Japan	
	Kenji Yoshimoto, Kanazawa University, Kanazawa, Japan "Potentials of multiblock copolymers for DSA applications"	
	Kenji Yoshimoto, Kanazawa University, Kanazawa, Japan	
5:00	Kenji Yoshimoto, Kanazawa University, Kanazawa, Japan "Potentials of multiblock copolymers for DSA applications"	





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8:30 a.m.	Registration	
9:00	Jin Kon Kim, Pohang University of Science and Technology, Pohang, Korea	
	"Tetragonally and rectangularly packed hierarchical cylinders from $A_1BA_2C$ tetrablock	
	terpolymer"	
09:45	Teruaki Hayakawa, Tokyo Institute of Technology, Tokyo, Japan	
	"Achieving ultra-small features with chemically modified block copolymers"	
10:30	Coffee Break & POSTERS	
11:00	Hai Deng, Fudan University, Shanghai, China	
	"Kinetics and orientation study of fast-assembling fluoro BCPs"	
11:45	Itaru Osaka, Hiroshima University , Hiroshima, Japan	
	"Design and synthesis of $\pi$ -conjugated polymers for efficient organic photovoltaics"	
12:30	Lunch On site	
2:00 p.m.	Su-Mi Hur, Chonnam National University, Gwangju, Korea	
	"Exploring Directed self-assembly (DSA) in conjunction with EUVL for improved pattern	
	quality via molecular simulations"	
2:45	Lander Verstraete, IMEC, Institut de micro-électronique et composants, Leuven,	
	Belgium	
	"Enabling chemically amplified resists towards tight pitch EUV patterning by DSA	
	rectification"	
3:30	Coffee Break & POSTERS	
4:00	Jörg K. N. Lindner, University of Paderborn, Paderborn, Germany	
	"Progress in the nanopatterning of silicon surfaces with block-copolymer lithography"	
4:45	Marc Zelsmann, UGA, CNRS- LTM, Grenoble, France	
	"Self-assembly and dry etching of high- $\chi$ block copolymers in a microelectronics	
	context"	
5:00	Michele Perego, IMM-CNR, Agrate Brianza, Italy	
	"Doping of silicon at nanoscale by ultra-low energy ion implantation through block	
	copolymer templates"	
5:45	Conclusion of the DSA <sup>2024</sup>	
7:30	Dinner at restaurant (to be confirmed) Grenoble (downtown)	







