

3rd Japan-EU Flagship Workshop on Graphene & 2D Materials

Nov. 19th - 21st, 2018

Conference Room, Nano-Spin Bld., Katahira CampusRIEC, Tohoku University, Sendai, Japan

Scientific Program

Nov. 19th, 2018

Session	Time	Name	Affiliation	Title of presentation	page
Opening	9:00-9:10	General Chair			-
	9:10-9:20	Jari Kinaret	Director, Graphene Flagship	(Professor, Dept. Appl. Phys. Chalmers Univ. Tech., Sweden)	-
	9:20-9:30	Atsushi Kurobe	Research Supervisor, JST	(Chief Fellow, Toshiba Corp., Japan)	-
DEV1	9:30-9:55	Daniel Neumaier	AMO, Germany	Graphene based electronic devices and integrated circuits for RF communication	2
	9:55-10:20	Kosuke Nagashio	Univ. Tokyo, Japan	Electrically inert interface in 2D heterostructure devices	3
	10:20-10:45	Takamasa Kawanago	Tokyo Tech., Japan	MoS ₂ FETs fabricated by adhesion lithography	4
	10:45-11:10	Ryo Nouchi	Osaka P. Univ., Japan	Surface chemical reactions on field-effect transistors based on two-dimensional materials	5
	11:10-11:35	Yifeng Fu	CUT, Sweden	Graphene-CNT hybrid material as potential thermal solution in electronics applications	6
	11:35-12:00	Taishi Takenobu	Nagoya Univ., Japan	Light-emitting devices of transition metal dichalcogenide monolayers	7
(LUNCH)					
PHYS1	1:30-1:55	Thomas Ihn	ETH Zurich, Switzerland	Gate-defined bilayer graphene constrictions and quantum dots	10
	1:55-2:20	Shuichi Murakami	Tokyo Tech., Japan	Two-dimensional electrides as topological materials	11
	2:20-2:45	Bernard Placais	ENS-Paris, France	Phonon cooling pathways of hot electrons in graphene	12
	2:45-3:10	Tomoki Machida	Univ. Tokyo, Japan	Robotic assembly and quantum transport of van der Waals heterostructures	13
	3:10-3:35	Felix Casanova	CIC-Nanogune, Spain	Manipulating spin currents with graphene-based heterostructures	14
(BREAK)					
MAT1	4:00-4:25	Kenji Watanabe	NIMS, Japan	Deep UV photoluminescence microscopy system for exploring luminous properties of hexagonal boron nitride crystals	16
	4:25-4:50	Camila Coletti	IIT, Italy	Synthesizing 2D materials for optoelectronics: approaches and prospects	17
	4:50-5:15	Hiroki Ago	Kyushu Univ., Japan	Controlled CVD synthesis of high-quality 2D materials for electronic and photonic applications	18
	5:15-5:40	Christoph Stampfer	RWTH, Germany	Going beyond the intrinsic limit of graphene's carrier mobility	19
	5:40-6:05	Shintaro Sato	Fujitsu, Japan	Synthesis and application of graphene nanoribbons	20
	6:05-6:30	Hiroshi Nishihara	Univ. Tokyo, Japan	Synthesis and applications of coordination nanosheet (CONASH)	21

(WORKING DINNER)

Nov. 20th, 2018

Session	Time	Name	Affiliation	Title of presentation	page
PHYS2	9:30-9:55	Ignacio Gutiérrez-Lezama	Univ. Geneva, Switzerland	Very large tunneling magnetoresistance in layered magnetic semiconductor CrI ₃	24
	9:55-10:20	Masashi Kawasaki	Univ. Tokyo, Japan	Magnetic heterostructures of topological insulator	25
	10:20-10:45	Saroj P. Dash	Chalmers Univ. Tech., Sweden	Spin transport in van der Waals heterostructures	26
	10:45-11:10	Sunao Shimizu	RIKEN, Japan	Electric field control of thermoelectric properties in layered two dimensional materials	27
	11:10-11:35	Sergio O. Valenzuela	ICN2, Spain	Enhanced spin-orbit interaction in graphene due to the proximity of metals and transition metal dichalcogenides	28

(LUNCH)

DEV2	1:00-1:25	Emmanuel Kymakis	Crete, Greece	Graphene and related 2D materials interfacial and device engineering for perovskite photovoltaics	30
	1:25-1:50	Toshiaki Kato	Tohoku Univ., Japan	Schottky solar cell using few-layered TMDs	31
	1:50-2:15	Jie Tang	NIMS, Japan	Graphene supercapacitors	32
	2:15-2:40	Arben Merckoci	ICN2, Spain	Graphene-based biosensors for diagnostics	33
	2:40-3:05	Yuhei Hayamizu	Tokyo Tech., Japan	Nano-bio sensing using graphene composite	34
	3:05-3:30	Kazuhiko Matsumoto	Osaka Univ., Japan	Sugar chain functionalized graphene FET for biological application	35

(BREAK)

MAT2	4:00-4:25	Catherine Journet-Gautier	Lyon Univ., France	Polymer-derived boron nitride nanosheets	38
	4:25-4:50	Yasumitsu Miyata	Tokyo M. Univ., Japan	Growth of in-plane heterostructures based on layered chalcogenides	39
	4:50-5:15	Katsuaki Sugawara	Tohoku Univ., Japan	High-resolution ARPES studies of atomic-layer transition-metal dichalcogenides	40
	5:15-5:40	Hanako Okuno	CEA, France	Structural investigation of 2D materials: From growth to controlled properties	41
	5:40-6:05	Paul V. Wiper	AIXTRON, UK	Advances in 2D materials production: from R&D to commercialization	42
	6:05-6:30	Kazu Suenaga	AIST, Japan	Atomic resolution analysis of 2D materials	43

(RECEPTION)

Nov. 21st, 2018

Focussed	9:00-9:25	Yoshihiro Iwasa	Univ. Tokyo	Rolling transition metal dichalcogenides to nanotubes	46
	9:25-9:50	Stephan Roche	ICN2, Spain	Modelling spintronics and valleytronics: Bulk versus edge transport	47
	9:50-10:15	Taiichi Otsuji	Tohoku Univ.	Plasmon instabilities in graphene-based van der Waals heterostructures	48
	10:15-10:40	Riichiro Saito	Tohoku Univ.	Enhancement of electric field for measuring optical response in two-dimensional materials	49

(BREAK)

Round-Table Discussion	10:50-11:30	Francesco Bonaccorso	ITT, Italy	Toward the large scale production of 2D-materials for energy applications	52
Closing	11:30-12:30			Challenges of Japan-EU collaboration in advanced technologies	-