SPINOS 2014

Egret Himeji, Hyogo, JAPAN

13th October – 17th October 2014

5th Topical Meeting on Spins in Organic Semiconductors

Welcome to SPINOS V

The organizing committee is please to host the 5th Topical Meeting on Spins in Organic Semiconductors (SPINOS V) in Himeji, Japan, during 13th–17th October, 2014. The SPINOS V follows previous SPINOS meetings: Bologna (Italy, 2007), Salt Lake City (USA, 2009), Amsterdam (the Netherlands, 2010), and London (UK, 2012). We wish you a very nice and memorable stay in Himeji.

Scope

SPINOS brings together scientists interested in the behavior of spins in organic semiconductors. Building on recent advances in organic spintronics, magnetic field effects in organic systems, organic magnets, and spin chemistry, material systems of interest, including π-conjugated polymers, small molecules, fullerenes, and graphene, this event is a great opportunity for physicists, device engineers, and physical and materials chemists to meet and discuss research topics and other issues relating to the technical implementation of organic semiconductor devices as well as the scientific study of organic spin systems. In addition, there will be rooms and times available for open discussion and building friendships.

Topics

- Organic spintronics
- Magnetic field effects in organic systems
- Organic magnet
- Spin chemistry
- Organic thin-film devices
- π-Conjugated polymer
- Small molecules
- Fullerenes
- Graphene
- Spin-related phenomena in organics

Organization

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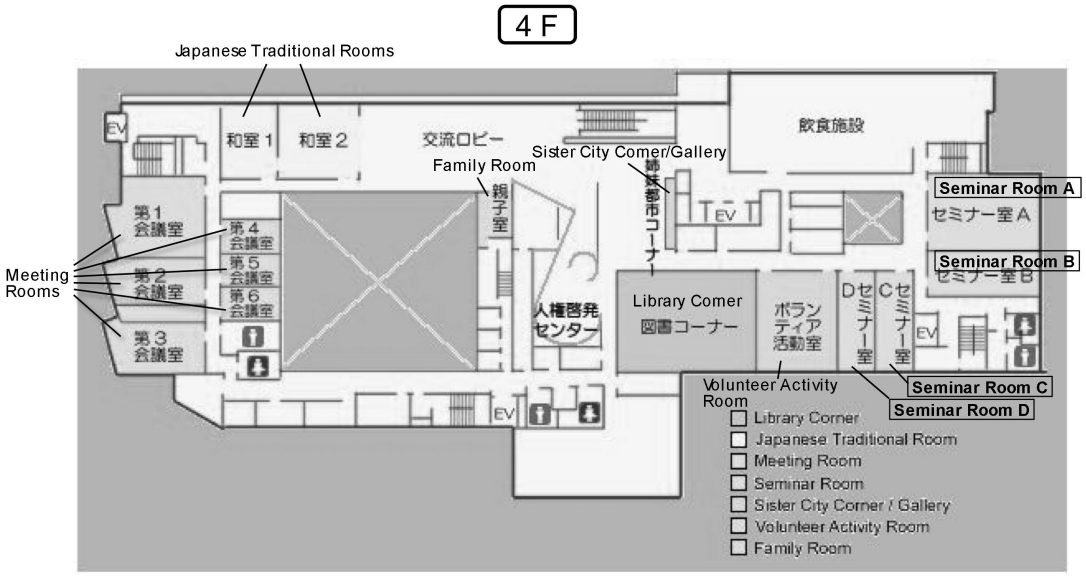
Venues

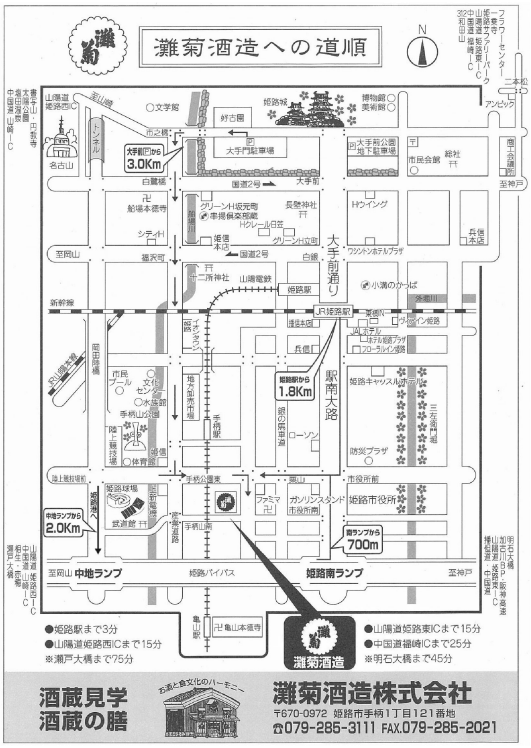
Egret Himeji

- Registration & Poster Presentation: Himeji Citizens Gallery (B1)
- Oral Presentation: I-messae Hall (3F)
- Lunch & Break: Seminar Rooms A, B, C, and D (4F)



Nadagiku Shuzo Sake Brewery

- Banquet (18:00 – 21:00, Thursday 16)
- Shuttle busses from Egret Himeji to Nagagiku will leave at 17:00 on Thursday 16.



Program Overview

Monday 13

17:30 – 19:30	Registration

Tuesday 14

9:00 – 9:10	Welcome
9:10 – 10:40	Oral session: organic spintronics in the ground state I
10:40 – 11:10	Break
11:10 – 12:20	Oral session: organic spintronics in the ground state II
12:20 – 13:40	Lunch + photo
13:40 – 15:50	Oral session: organic spintronics in the ground state III
15:50 – 16:20	Break
16:20 – 18:10	Oral session: new materials I, organic spintronics in excited states I
18:10 – 20:00	Poster session A

Wednesday 15

9:00 – 10:30	Oral session: organic spintronics in excited states II
10:30 – 11:00	Break
11:00 – 12:40	Oral session: organic spintronics in excited states III
12:40 – 13:40	Lunch
13:40 – 15:40	Oral session: organic spintronics in excited states IV
15:40 – 16:10	Break
16:10 – 18:10	Oral session: organic spintronics in excited states V
18:10 – 20:00	Poster session B

Thursday 16

9:00 – 10:30	Oral session: new materials II
10:30 – 11:00	Break
11:00 – 12:30	Oral session: new materials III
12:30 – 13:30	Lunch
13:30 – 18:00	Free time and excursion (Himeji Castle)
18:00 – 21:00	Banquet at Nadagiku Shuzo Sake Brewery

Friday 17

9:00 – 10:30	Oral session: new materials IV, magnetic resonance I
10:30 – 11:00	Break
11:00 – 12:40	Oral Session: new materials V, magnetic resonance II
12:40 – 13:40	Lunch
13:40 – 15:00	Oral session: new materials VI, organic spintronics in excited states VI
15:00 – 15:20	Closure

Monday 13

Registration (17:30–19:30) – *Himeji Citizens Gallery (B1)* –

Tuesday 14

Oral sessions at I-messae Hall (3F)

Welcome (9:00–9:10))			
Organic spintronics in the ground state I, Chair: M. Shiraishi			
9:10	Georg Schmidt *Universitat Halle*	Tunable tunnel barriers in organic spin valves	I-01
9:40	Mirko Cinchetti *University of Kaiserslautern*	Spinterfaces for ultrafast spin control on the nanometer scale	O-01
10:00	Kai Wang *University of Twente*	Spin transport through Co and C_{60} hybridized interface	O-02
10:20	Mikhail Raikh *University of Utah*	Giant fluctuations of local magnetoresistance of organic spin valves	O-03
Break (10:40–11:10) – *Seminar Rooms A, B, C, and D (4F)* –			
Organic spintronics in the ground state II, Chair: G. Schmidt			
11:10	Karthik Venkataraman *Indian Institute of Science*	Tailoring interfaces at molecular level	I-02
11:40	Yao-Jane Hsu *National Synchrotron Radiation Research Center*	Effective spin filtering for cobalt atop Alq_3 Hybridized Interface	O-04
12:00	Der-Hsin Wei *National Synchrotron Radiation Research Center*	Interlayer exchange coupling across an amorphous organic spacer	O-05
Photo (12:20–12:40)			
Lunch (12:40–13:40) – *Seminar Rooms A, B, C, and D (4F)* –			

Organic spintronics in the ground state III, Chair: A. Drew			
13:40	Kazuya Ando *Keio University*	Dynamical spin injection into organic materials	I-03
14:10	Ryo Ohshima *Osaka University*	Detection of spin-charge conversion in single-layer graphene at room temperature	O-06
14:30	Motoi Kimata *University of Tokyo*	Spin transport in disordered highly doped polymer film	O-07
14:50	Shiro Entani *Japan Atomic Energy Agency*	Vertical spin valves of graphene/ferromagnetic metal junctions	O-08
15:10	Andrew Pratt *University of York and National Institute for Materials Science*	Unravelling the spinterface with a spin-polarised metastable helium beam	O-09
15:30	Yu Jeong Bae *Ewha Womans University*	Interface-controlled molecular ordering and spin transport through the MgO/CuPc hybrid barrier	O-10
Break (15:50–16:20) – *Seminar Rooms A, B, C, and D (4F)* –			
New materials I, **Organic spintronics in excited states I**, Chair: W. Gillin			
16:20	Wilgred G. van der Wiel *University of Twente*	Ultrahigh magnetoresistance at room temperature in molecular wires	I-04
16:50	Peter Arnold Bobbert *Technische Universiteit Eindhoven*	Ultrahigh magnetoresistance in 1D organic systems: theoretical considerations	O-11
17:10	Seiji Miyashita *The University of Tokyo*	Ferromagnetic states in an extended Nagaoka system	O-12
17:30	Benjamin Stadtmüller *University of Kaiserslautern*	Imaging the k-space fingerprint of the molecule-substrate interaction at metal-organic hybrid interfaces	O-13
17:50	Nicholas J. Harmon *University of Iowa*	Anomalous organic magnetoresistance from competing carrier-spin-dependent interactions with localized electronic and nuclear spins	O-14
Poster session A (18:10–20:00) – *Himeji Citizens Gallery (B1)* –			

Wednesday 15

Oral sessions at I-messae Hall (3F)

Organic spintronics in excited states II, Chair: P. Bobbert			
9:00	Eitan Ehrenfreund *Technion-Israel Institute of Technology*	High field magneto-photocurrent in organic photovoltaic solar cells; the effect of short-lived charge transfer states	I-05
9:30	Markus Wohlgenannt *University of Iowa*	Organic magnetoelectroluminescence for room temperature transduction between magnetic and optical information	O-15
9:50	Philippe Klemm *University of Regensburg*	Observation of disorder in spin-orbit coupling in the magnetic field effect of organic semiconductors	O-16
10:10	Matthijs Cox *Eindhoven University of Technology*	Trap-dominated magnetic field effects in organic semiconductors	O-17
Break (10:30–11:00) – *Seminar Rooms A, B, C, and D (4F)* –			
Organic spintronics in excited states III, Chair: M. Wohlgenannt			
11:00	Bert Koopmans *Technische Universiteit Eindhoven*	Towards tuning organic magnetoresistance by design	K-01
11:40	Ashutosh Tiwari *University of Utah*	Oxides for organic spintronics and spin caloritronics	O-18
12:00	Tzung-Fang Guo *National Cheng Kung University*	Modulations in line shapes of magnetoconductance curves for diodes of pentacene:fullerene charge transfer complexes	O-19
12:20	Carolin Isenberg *University of Kassel*	Revealing the origin of magnetoresistance in unipolar amorphous organic field-effect transistors	O-20
Lunch (12:40–13:40) – *Seminar Rooms A, B, C, and D (4F)* –			

Organic spintronics in excited states IV, Chair: M. Flatté			
13:40	Chihaya Adachi *Kyushu University*	New routes of triplet harvesting in organic light emitting diodes	K-02
14:20	Andrew Monkman *Durham University*	Effect of singlet triplet recycling in the CT manifold of TADF molecules.	O-21
14:40	Feng Li *Jilin University*	High exciton utilization and slow efficiency roll-off benefited from E-type and P-type triplet to singlet up-conversion	O-22
15:00	Marc Etherington *University of Cambridge*	Magnetic field effects on the photocurrent of polymer:fullerene solar cells	O-23
15:20	Tadaaki Ikoma *Niigata University*	Time-resolved magnetophotoconductance study on carrier dynamics in low-dimensional molecular assembly of hexabenzocoronene	O-24
Break (15:40–16:10) – *Seminar Rooms A, B, C, and D (4F)* –			
Organic spintronics in excited states V, Chair: T.-F. Guo			
16:10	Bin Hu *University of Tennessee*	Magneto-dielectric effects developed by charge-transfer states in organic materials	I-06
16:40	Michael Flatté *University of Iowa*	Spin relaxation in materials lacking coherent charge transport	I-07
17:10	A.D. Chepelianskii *University of Cambridge*	Low-temperature transport properties of long lived photo-excitations in organic materials	O-25
17:30	Sam Bayliss *University of Cambridge*	Probing spin-dependent recombination at high rabi frequencies	O-26
17:50	Yasuhiro Kobori *Kobe University*	Electron-hole dissociations influenced by alkyl side chains in the photovoltaic polyalkylthiophene:PCBM Interface	O-27
Poster session B (18:10–20:00) – *Himeji Citizens Gallery (B1)* –			

Thursday 16

Oral sessions at I-messae Hall (3F)

New materials II, Chair: K. Awaga			
9:00	Mario Ruben *Karlsruhe Institute of Technology*	Molecular spintronic quantum devices	I-08
9:30	Masahiro Yamashita *Tohoku University*	Frontier of quantum molecular spintronics based on single-molecule magnets	O-28
9:50	Megan Harberts *The Ohio State University*	Ultra-narrow ferromagnetic resonance in thin film vanadium tetracyanoethylene	O-29
10:10	Julien Dugay *Delft University of technology and Unversidad de Valencia*	Size effect of the electrical spin-state switching of SCO nanorods	O-30
Break (10:30–11:00) – *Seminar Rooms A, B, C, and D (4F)* –			
New materials III, Chair: M. Yamashita			
11:00	Shin-ichi Kuroda *Nagoya University*	ESR spectroscopy of charge carriers in recent high-mobility organic transistors	I-09
11:30	Tatsuo Hasegawa *The University of Tokyo*	Interface charge transport and device physics of organic semiconductors	O-31
11:50	Kunio Awaga *Nagoya University*	Paramagnetic n-type organic semiconductor VOTTDPz and ambipolar transport in phase-separated thin-films with p-type VOPc	O-32
12:10	Michio M. Matsushita *Nagoya University*	Spin-polarized donors carrying plural paramagnetic spins	O-33
Lunch (12:3–13:30) – *Seminar Rooms A, B, C, and D (4F)* –			
Free time and excursion (Himeji Castle) (13:30–18:00)			
Banquet at Nadagiku Shuzo Sake Brewery (18:00–21:00)			

Friday 17

Oral sessions at I-messae Hall (3F)

New materials IV, **Magnetic resonance I**, Chair: E. Ehrenfreund			
9:00	Alan Drew *Sichuan University and Queen Mary University of London*	Spins in organic semiconductors: recent developments in the application of muons	I-10
9:30	Leander Schulz *Sichuan University*	Importance of spin-orbit interaction for the electron spin relaxation in organic semiconductors	O-34
9:50	Katsuichi Kanemoto *Osaka City University*	Spin pairs in polymer light emitting diodes studied by electrically and electroluminescence detected magnetic resonance techniques	O-35
10:10	Yoshio Teki *Osaka City University*	Excited-state spin dynamics of π-radicals and possible application toward orgnaic spintronics	O-36
Break (10:30–11:00) – *Seminar Rooms A, B, C, and D (4F)* –			
New materials V, **Magnetic resonance II**, Chair: B. Hu			
11:00	Kazunobu Sato *Osaka City University*	Molecular spin manipulation technology in pulsed electron magnetic resonance spectroscopy for molecular spin quantum computers	O-37
11:20	Biniam Zerai Tedlla *University of Antwerpen*	Electrically (optically) detected magnetic resonance study of triplets in bulk heterojunction polymer:fullerene photovoltaic devices	O-38
11:40	Thomas Keevers *University of New South Wales*	Estimation of the exciton-polaron coupling in organic semiconductors through pulsed electrically detected magnetic resonance	O-39
12:00	Noriaki Hanasaki *Osaka University*	Magnetic-field-induced suppression of charge order in phthalocyanine-molecular conductor	O-40
12:20	Koji Nakabayashi *The University of Tokyo*	Solvent-free octacyanometalate-based magnets showing high thermal durability	O-41
Lunch (12:40–13:40) – *Seminar Rooms A, B, C, and D (4F)* –			
New materials VI, **Organic spintronics in excited states VI**, Chair: T. Ikoma			
13:40	Gianluca Bovo *Imperial College London*	Electrical readout of thermally-induced dielectric bistability in solution processed thin films of spin crossover polymers	O-42
14:00	Tomoaki Yago *Saitama University*	Spin polarizations generated in photo-excited triplet state	O-43
14:20	Yasushi Morita *Aichi Institute of Technology*	Mixed valence salts of carbon-centered neutral radicals	O-44
14:40	Toru Sakai *JAEA, SPring-8*	Spin nanotubes	O-45
Closure (15:00–15:20)			

Poster session A

– Himeji Citizens Gallery (B1) –

PA-01	Seiji Sakai *Japan Atomic Energy Agency*	Spin orientation and electronic states at graphene/nickel interface
PA-02	Keitaro Eguchi *Nagoya University*	Antiferromagnetic coupling of VOPc to ferromagnetic Fe film
PA-03	Guoan Li *Sichuan University*	Employment of spin-spin interaction in muoniated organic molecules to determine the intrinsic charge carrier motion
PA-04	Takuya Omori *Niigata University*	Carrier dynamics in organic solar cells explored through the magnetoconductance effect
PA-05	Hisaaki Tanaka *Nagoya University*	Microscopic signature of metallic state in highly-doped semicrystalline conducting polymers
PA-06	Ryuta Ishikawa *Fukuoka University*	Electrical conductivity of $[\{M^{II}(bpypz)_2\}]$—TCNQ coordination polymers
PA-07	Takaumi Morita *Tohoku University*	Highest reported temperature for hysteresis of the magnetization of a single-molecule magnet
PA-08	Wataru Fujita *Nagoya City University*	Magnetic properties of charge-transfer complexes composed of 1,3,2-dithiazolyl radicals
PA-09	Harukazu Yoshino *Osaka City University*	Transport properties of novel Q2D organic conductor τ-(EDT-S,S-DMEDT-TTF)$_2$(AuI$_2$)$_{1+y}$, ($y < 1$)
PA-10	Jun-ichi Yamada *University of Hyogo*	Structures and properties of diradical compounds containing disulfide and nitroxide groups
PA-11	Ikeda Mitsuo *Osaka University*	Ferromagnetic intramolecular π-d Interaction in a phtalocyanine molecular conductor
PA-12	Yumi Ida *The University of Electro-Communications*	Exchange couplings in mono-, di-, and polymeric [DyCu$_2$] compounds
PA-13	Shuichi Suzuki *Osaka City University*	Direct introduction of nitronyl nitroxide to pi-electronic compounds
PA-14	Ling Xu *Huazhong University of Science and Technology*	Magneto-Seebeck effects in the organic thin-film device

Poster session B

– Himeji Citizens Gallery (B1) –

PB-01	T. Komino *Kyushu University*	Suppression of efficiency roll-off characteristics in thermally activated delayed fluorescence based organic light-emitting diodes using randomly oriented host molecules
PB-02	Taku Miura *Kobe University*	Morphology effect of the geometry of the photoinduced charge-separated states in RR-P3HT:PCBM blend films studied by time-resolved EPR
PB-03	Jing He *Sichuan University*	Electron spin relaxation in the polythiophenes
PB-04	K. Goushi *Kyushu University*	Delayed fluorescence by reverse intersystem crossing from intermolecular excited states
PB-05	Thomas Reichert *University of Kassel*	Revealing organic magnetoresistance in ambipolar field-effect transistors
PB-06	Seiichi Sato *University of Hyogo*	Thiolate-capped silicon nanoparticle inks for the formation of porous silicon films
PB-07	Takashi Fujimoto *The University of Tokyo*	Site-selective two-step spin-crossover in a Fe-Mo bimetallic assembly
PB-08	Ken Uchida *Niigata University*	Substituent effects on the photocarrier dynamics in benzimidazoline thin films
PB-09	Hsiang-Han Tseng *Imperial College London*	Fabrication and characterisation of magnetic molecular films based on charge-transfer salts
PB-10	Yoshiaki Shuku *Nagoya University*	Physical properties of radical anion salts and transition metal complexes of 1,2,5-thiadiazole 1,1-dioxide compounds
PB-11	Rie Suizu *Chiba University*	Physical properties of heterocyclic thiazyl diradical BDTDA thin films grown on substrates used in devices
PB-12	Yoshikazu Umeta *The University of Tokyo*	The crystal structure and the physical property of tetragonal copper octacyanomolybdate bimetal assembly
PB-13	Mahiro Kanari *Tohoku University*	Structure of $Ni(pdt)_2$ complexes (pdt = 2,3-pyrazinedithiol) using various counter cations and their physical properties
PB-14	Miki Nishi *Kumamoto University*	Constructing a molecular conductor composed of dicyano iron(III) tetrabenzoporphyrin with exploring the giant magnetoresistance effect
PB-15	Yoji Horii *Tohoku University*	Magnetic behaviors of multiple-decker phthalocyaninato terbium (III) SMM complexes at relatively high temperature
PB-16	Akihiro Shimizu *Osaka City University*	Kinetic elucidation for excited states of pentacene—radical hybrids
PB-17	Koichi Katayama *Osaka City University*	Magnetic properties of Co Complexes with anthracene moiety

SpinOS V Program Overview (13th - 17th October 2014)

	Monday 13th	Tuesday 14th	Wednesday 15th	Thursday 16th	Friday 17th
9:00		Opening	Organic spintronics in excited states II: I-05 Ehrenfreund	New materials II: I-08 Ruben	New materials IV, Magnetic resonance I: I-10 Drew
9:30		Organic spintronics in the ground state I: I-01 Schmidt	O-15 Wohlgenannt	O-28 Yamashita	O-34 Schulz
10:00		O-01 Chinchetti	O-16 Klemm	O-29 Harberts	O-35 Kanemoto
10:30		O-02 Wang	O-17 Cox	O-30 Dugay	O-36 Teki
11:00		O-03 Raikh	Break	Break	Break
11:30		Break	Organic spintronics in excited states III: K-01 Koopmans	New materials III: I-09 Kuroda	New materials V, Magnetic resonance II: O-37 Sato
12:00		Organic spintronics in the ground state II: I-02 V.Raman	O-18 Tiwari	O-31 Hasegawa	O-38 Tedlla
12:30		O-04 Hsu	O-19 Guo	O-32 Awaga	O-39 Keevers
13:00		O-05 Wei	O-20 Isenberg	O-33 Matsushita	O-40 Hanasaki
13:30		Lunch+photo	Lunch	Lunch	O-41 Nakabayashi
14:00		Organic spintronics in the ground stateIII: I-03 Ando	Organic spintronics in excited states IV: K-02 Adachi	Advisory board meeting	Lunch
14:30		O-06 Ohsima	O-21 Monkman		New materials VI, Organic spintronics in excited states VI: O-42 Bovo
15:00		O-07 Kimata	O-22 Li		O-43 Yago
15:30		O-08 Entani	O-23 Etherington		O-44 Morita
16:00		O-09 Pratt	O-24 Ikoma		O-45 Sakai
16:30		O-10 Bae	Break	Free time and excursion (Himeji Castle)	Closure
17:00		Break	Organic spintronics in excited states V: I-06 Hu		
17:30	Registration (17:30~19:30)	New materials I, Organic spintronics in excited states I: I-04 van der Wiel	I-07 Flatté		
18:00		O-11 Bobbert	O-25 Chepelianski		
~21:00		O-12 Miyashita	O-26 Bayliss	Banquet at Nadagiku Shuzo Sake Brewery (18:00~21:00)	
		O-13 Stadtmüller	O-27 Kobori		
		O-14 Harmon			
		Poster session A (18:10~20:00)	Poster session B (18:10~20:00)		