International Workshop on

Topology/Geometry-driven Electron Systems toward New Horizon of Functional Materials

December 12 (Sat)		
9:20	Opening Remarks	Jun Onoe (Nagoya University)
Chair: Jun Onoe		
9:30	Plenary Lecture	Yoshiyuki Kawazoe (Tohoku University)
	New 3D sp ² -bonded Carbon Allotropes Having Unique Properties Predicted and	
	Confirmed Theoretically	
10:30	Oral Presentation 1	Tetsuo Deguchi (Ochanomizu University)
	Topological Polymers Studied through Quaternion Algorithm	
10:50	Oral Presentation 2	Koya Shimokawa (Saitama University)
10.50	Knots and Graphs in Polymer Chemistry	Koya Siiiiiokawa (Sattama Citiversity)
	Knots and Oraphs in Forymer Chemistry	
11:10	Oral Presentation 3	Shota Ono (Yokohama National University)
	Two-Particle Schrödinger Equation for In	nhomogeneous Dielectric Media
11:30	Group Photo & Lunch	
Chair: Koya Shimokawa		
13:00	Invited Lecture 1	Joanna I. Sulkowska (University of Warsaw)
	Complex Lasso: New Entangled Motifs in Proteins	
13:50	Oral Presentation 4	Makoto Tagami (<i>Kyushu Institute of Technology</i>)
	On the Classification of Mackay Crystals by Group Action	
1.1.10		
14:10	Oral Presentation 5	Yasutaka Kitagawa (Osaka University)
	A possibility of Molecular Switch by External Field	
	 DFT Studies on One-Dimensional Metal Complex and Oligoacenes – 	

Hiroyuki Shima (Yamanashi University)

Oral Presentation 6

Geometry-property Relation in Curved Nanocarbons

14:30

14:50 Coffee/Tea Break

18:00

Workshop Dinner

Chair: Yuichi Negishi 15:10 Invited Lecture 2 Qian Wang (Peking *University*) Geometry-induced Functional Carbon Materials 16:00 Oral Presentation 7 Jun Onoe (Nagoya University) Geometric Curvature Effects on the Electronic Properties of One-Dimensional Uneven Structured Exotic-Nanocarbon 16:20 Oral Presentation 8 Yasuyuki Tezuka (*Tokyo Institute of Technology*) Topological Polymer Chemistry Designing Macromolecular Graph Constructions 16:40 Oral Presentation 9 Kentaro Tanaka (Nagoya University) Multiply Mechanically Interlocked Metal Complexes 17:00 Oral Presentation 10 Tsukasa Torimoto (Nagoya University) Preparation of ZnS-AgInS₂ Solid Solution Nanoparticles and Their Size- and

Chair: Tsukasa Torimoto

Composition-dependent Photocatalytic Activity

December 13 (Sun)

12:30

Closing Remarks

Chair: Yasutaka Kitagawa 10:00 *Invited Lecture 3* Avadh Saxena (Los Alamos National Laboratory) Topology and Geometry Effects in Graphene Nanoribbons and Chiral Magnets 10:50 Oral Presentation 11 Sayaka Uchida (*The University of Tokyo*) Reduction-induced Highly Selective Uptake of Cs⁺ by an Ionic Crystal based on Polyoxometalate 11:10 Oral Presentation 12 Yuichi Negishi (*Tokyo University of Science*) Toward the Creation of Stable, Functionalized Metal Clusters 11:30 Oral Presentation 13 Kazunari Matsuda (*Kyoto University*) Development of Optical Properties and Application of Nano-carbon and Atomically Thin Two-dimensional Materials 11:50 Oral Presentation 14 Hidehiro Yasuda (Osaka University) In-situ TEM Observations of Electronic Excitation Effects in Compound Nanoparticles 12:10 Oral Presentation 15 Hidemi Shigekawa (*University of Tsukuba*)

Laser-combined Scanning Tunneling Microscopy and Its Applications

Tetsuo Deguchi (Ochanomizu University)