

Symposium at Pacificchem 2021

Molecular engines based on energy conversion : From design to autonomous functions



All virtual (Japan Time)

2 oral sessions

Tuesday December 21st

3:00 – 7:00

13:00 – 17:00

+ poster session

Sunday December 19th

14:00 – 16:00

5 Invited speakers (40')

Ben Feringa, Groningen University, Nobel Laureate, Netherlands

Anne-Sophie Duwez, University of Liège, Belgium

Nathalie Katsonis, University of Twente, Netherlands

Ryota Iino, Institute of Molecular Science, Japan

David Leigh, Manchester University, United Kingdom

10 Contributed lectures (20') and 12 Posters



Molecular Engine

Oral Session 1 Tuesday December 21st

3:00-7:00 JST (19:00-23:00 EUR Morning in USA)

Title	Presenting Author	Duration
Opening remarks		5
Autonomous chemically fuelled molecular motors	Leigh, David	40
Probing single molecules with AFM: Force, motion, dynamics, and function	Duwez, Anne-Sophie	40
Break		15
Cooperative action of molecular motors in mechanically active materials	Katsonis, Nathalie	40
Molecular machines in action	Hla, Saw	20
Break		15
Precision synthesis of poly[<i>n</i>]rotaxanes	Qiu, Yunyan	20
Probing the mechanochemical properties of a synthetic molecular knot by AFM	Sluysmans, Damien	20
Photochromic ruthenium sulfoxide complexes as molecular machines	Rack, Jeffrey	20
Closing		5

Session chair : G. Rapenne

8:00 – 12:00 Hawaian Time

Oral Session 2 Tuesday December 21st
13:00-17:00 JST (5:00-9:00 EUR Night in USA)













Title	Presenting Author	Duration
Opening		5
Watching dynamic motions of individual protein motors	IINO, Ryota	40
Functions emerged through swarming of bio-molecular engines	Kakugo, Akira	20
Break		10
Molecules flow and align by scanning wave photopolymerization	Shishido, Atsushi	20
Construction and solid-state dynamics of supramolecular hydrocarbon bearings	Matsuno, Taisuke	20
Break		10
Multiply engaged molecular gear composed of multi-decker porphyrin complex	Nishino, Toshio	20
Fluorinated multiblock amphiphiles and their transmembrane ion transport properties	Sato, Kohei	20
Break		10
Chirality dependent formation of organic gel by flexible π -conjugated molecular machine	Nakanishi, Waka	20
Light-drive molecular rotary motors	Feringa, Ben	40
Closing		5

Session chair : K. Kinbara

18:00 - 22:00 Hawaian Time

Poster Session Monday December 20th

14:00-16:00 JST (6:00-8:00 EUR Night in USA)

Title	Presenting Author
Internal strain analysis in bending silicone elastomer through selective reflection of cholesteric liquid crystal sensor	 Kishino, Masayuki
Quick contraction of hydrogel in water and on an electrode surface driven by reduction of pendant viologens in the	 Sagara, Takamasa
Optical limiting behavior of oligothiophene dye-doped liquid crystals induced by collimated laser beam	 Matsumoto, Kohsuke
Scanning wave photopolymerization generates molecular alignment template for liquid crystal	 Kobayashi, Yoshiaki
Simultaneous control of molecular alignment and surface structures by patterned photopolymerization	 Hashimoto, Sayuri
Probing the ring motion along the polymer track of a macrorotaxane at the single molecule level	 Ganbaatar, Narangerel
Synthesis of anthracene-based multiblock amphiphile and its stimuli-responsiveness within phospholipid membrane	 Adachi, Junya
Probing the motion of a molecular rotor by single-molecule force spectroscopy	 Li, Xun
Cycloidal molecular orientation induced by scanning wave photopolymerization	 Nakamura, Hirona
Polymerization behavior under molecular diffusion conditions caused by scanning wave photopolymerization	 Ishiyama, Takuto
Single-molecule force spectroscopy on synthetic molecular rotors	 Ledent, Maxime
Dipolar nanocar build around a porphyrin backbone	 Nishino, Toshio

Session chair : W. Nakanishi

19:00 - 21:00 Hawaian Time