

## Oscillations and Dynamic Instabilities in Chemical Systems

Gordon Research Conference

July 14 - 19, 2024

Les Diablerets Conference Center

Display your poster at the board # and session indicated below. If your name does not appear in the list and you intend to bring a poster, please contact the conference chair to see if there is space for your poster to be accommodated.

Displaying 69 of 69 posters

#	Session	Name	Affiliation	Poster Title
1	Monday/Tuesday	Sen, Shovan Kumar	Ben-Gurion University of the Negev	Audible Sound-controlled Spatiotemporal patterns of Chiral Supramolecular polymers and a Peptide base Oscillatory Network
2	Monday/Tuesday	Bin Aamir, Abdullah	Ruhr University Bochum	Pattern Formation Across Scales: Self-Organization in Colloids, Crystals, and Atomic Structures
3	Monday/Tuesday	Holló, Gábor	University of Lausanne	From resonance to chaos: modulating spatiotemporal patterns through a synthetic optogenetic oscillator
4	Monday/Tuesday	Bordoh, Lawrence	Saint Louis University	Self-Organized Pattern Formation in Coupled Electrochemical Cells
5	Monday/Tuesday	Leathard, Anna	The University of Sheffield	Compartmentalised enzyme systems: Investigating Transport and Confinement Effects
6	Monday/Tuesday	Emmanuel, Michael	Saint Louis University	Reaction-diffusion model for corrosion wave propagation of Mg alloys
7	Monday/Tuesday	Escala, Darío Martín	Université Libre de Bruxelles	Scaling Properties of A+B -> C Reaction-Diffusion Fronts in Finite Rectilinear Geometries.
8	Monday/Tuesday	Gillet, Jean	Université Libre de Bruxelles (ULB)	Chiral Symmetry Breaking In Far-from-equilibrium Systems
9	Monday/Tuesday	Goychuk, Andriy	Massachusetts Institute of Technology	Patterning and dynamics of chemically active biomolecular condensates
10	Monday/Tuesday	Hayashi, Yoshikatsu	University Of Reading	Electro-active Polymer Hydrogels Exhibit Emergent Learning When Embodied in a Simulated Game-Environment
11	Monday/Tuesday	Tarama, Mitsusuke	Kyushu University	Actin cytoskeletal structures via micro and macro phase-separation
12	Monday/Tuesday	Hoachlander-Hobby, Lila	University of Wisconsin-Madison	A synthetic approach to investigate Rho GTPase self-organization during cell repair

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13	Monday/Tuesday	Hsieh, Ting-Sung	UT Southwestern Medical Center	Dynamic membrane remodeling by a self-organizing bacterial kinase-phosphatase duo
14	Monday/Tuesday	Itatani, Masaki	Department of Chemistry, Faculty of Science, Hokkaido University	Temporal pH Waveforms in an Enzymatic Reaction Network and Its Applications
16	Monday/Tuesday	Kaneko, Risa	Asakura Laboratory	Polymerization of acrylic compounds in the BZ reaction system to generate hydro-gels exhibiting far-from-equilibrium self-organization in the BZ substrate solution
17	Monday/Tuesday	Kriukov, Dmitrii	University of Twente	Harnessing autocatalysis out of equilibrium for neuromorphic responses
18	Monday/Tuesday	Kurin-Csörgei, Krisztina	Eötvös University, Hungary	High amplitude pH oscillations in the peroxodisulfate – thiosulfate - Cu(II) – ammonia system
19	Monday/Tuesday	Le Cacheux, Maëlle	University of Groningen	Parameter estimation as a tool for expansion of Small Organic Molecule Oscillators
20	Monday/Tuesday	Manz, Niklas	The College of Wooster	Chemical Reaction-Diffusion Waves Visualize Gravitational Lensing
21	Monday/Tuesday	Matsuki, Akari	Hokkaido University	Network inference from oscillatory signals based on the circle map
22	Monday/Tuesday	Murakami, Yukiteru	Technical University of Munich	A time-delay model for oscillations during Si electrodisolution
23	Monday/Tuesday	Negrojevic, Luka	Université Libre de Bruxelles	The influence of curvature on diffusive instabilities of autocatalytic chemical fronts
24	Monday/Tuesday	Nakouzi, Elias	Pacific Northwest National Laboratory	Reaction-diffusion coupling enables sequential extraction of critical elements from feedstock solutions
25	Monday/Tuesday	Otoguro, Kojiro	Tokyo University of Science	Transition in injection patterns of a fluid in a highly water-absorbent granular bed
26	Monday/Tuesday	Panzarasa, Guido	ETH Zürich	Thermochemical Clock Reactions
27	Monday/Tuesday	Parma, Eduardo	University of Campinas	Simulating Li-ion battery voltage oscillations
28	Monday/Tuesday	Rajasekaran, Rohith	University of Wisconsin–Madison	Evolution-inspired design of a protein reaction-diffusion platform for cell circuit engineering

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29	Monday/Tuesday	Sepaniac, Leslie	University of Wisconsin - Madison	Synthetic constitution of traveling Rho GTPase waves at the cell cortex
30	Monday/Tuesday	SHARMA, SURBHI	Johannes Gutenberg-Universität Mainz	Spatiotemporal Pattern Formation in Non-equilibrium Supramolecular Polymers
31	Monday/Tuesday	Yotsumoto, Mai	Hiroshima University	Odor identification based on the dynamic responses of phospholipid molecular layers
32	Monday/Tuesday	Yuan, Ling	China university of mining and technology	Role of Fast and Slow Inhibitors in Oscillatory Rhythm Design
33	Monday/Tuesday	Zhang, Meng	zm1919@cumt.edu.cn	Non-monotonic relationship between oscillatory frequency and light intensity of BZ-Ru(II) homogeneous and self-oscillating gel systems
34	Monday/Tuesday	Zhao, Michael	European Molecular Biology Laboratory	Origins of self-organized patterns from randomized embryonic tissue
35	Monday/Tuesday	Zhenfang, Cheng	15695255299	Performance Comparison Between Traditional, Nano-polymerized and Entangled BZ Self-oscillation Gels
1	Wednesday/Thursday	Aizawa, Amiko	Keio University	Periodic precipitation pattern formation during infiltration of dye solution into porous material associated with solvent evaporation
2	Wednesday/Thursday	Araya, Yuki	Chiba University	Synchronized oscillatory flows in two coupled collapsible channels
3	Wednesday/Thursday	Bigaj, Adam	Université Libre de Bruxelles (ULB)	Oscillatory dynamics induced by the coupling between Marangoni- and buoyancy-driven convection in an $A+B \rightarrow C$ system
4	Wednesday/Thursday	Vasquez, Desiderio	Pontificia Universidad Católica del Perú	Thermal and compositional driven convection in thin reaction fronts
5	Wednesday/Thursday	Chotalia, Aarsh	IIT Bombay	Modelling Chemical Intelligence Exhibited by Self-propelled Particles in Pathway Detection
6	Wednesday/Thursday	Datta, Agniva	University of Potsdam	Exploring the emergence of patterns and dynamic instabilities from density dependent bacterial motility
7	Wednesday/Thursday	Dedola, Manuel	Università di Parma	ON THE EFFECT OF SIZE ON THE KINETICS OF CHEMICAL PROCESSES IN LIQUIDS
8	Wednesday/Thursday	Luo, Chengjie	Max Planck Institute for Dynamics	Influence of physical interactions on spatiotemporal patterns

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9	Wednesday/Thursday	Dey, Pampa	Indian Institute of Technology Bombay	Run and Tumble Like Motion of Marangoni Swimmer
10	Wednesday/Thursday	Gholami, Azam	New York University, Abu Dhabi	Symmetry Breaking in Chemical Systems: Engineering Complexity through Self-Organization and Marangoni Flows of spatial heterogeneities
11	Wednesday/Thursday	Hatatani, Miku	Doshisha University	Spinning motion of a gear on vibrating water bed - one way spin by geometrical ratchet and by asymmetric surface wettability -
12	Wednesday/Thursday	Hernandez, David	University of Sheffield	Exploitation of droplet microfluidics for control of pH and particle synthesis with enzymes
13	Wednesday/Thursday	Hyun Gyu, Lee	Korea Institute for Advanced Study	Deformation-induced chiral transition of cell doublets and (anti)alignment in dense population
14	Wednesday/Thursday	Iwamoto, Koji	Graduate School of Science, Osaka University	Positive feedback regulation of excitable Ras by RasGEF is crucial for generating oscillation dynamics and driving cell motility
15	Wednesday/Thursday	Khuntia, Subhashree Subhrasmita	Indian Institute of Science Education and Research, Mohali	Auto-chemotactic random walk : single and collective behaviour
16	Wednesday/Thursday	Kubodera, Yujin	Hiroshima University	Formation of Chemical Canal
17	Wednesday/Thursday	Matsuo, Muneyuki	Hiroshima University	Listeria-like self-propulsion of inorganic aqua-droplet
18	Wednesday/Thursday	Matsuoka, Satomi	Osaka University	Regulation of an excitable system for spontaneous generation of cellular anterior-posterior polarity in migrating eukaryotic cells
19	Wednesday/Thursday	Nakata, Satoshi	Hiroshima University	Self-propelled objects exhibiting spatio-temporal pattern under nonequilibrium
20	Wednesday/Thursday	Pagano, Jason	Saginaw Valley State University	Precipitation tubes from copper-alum crystals
21	Wednesday/Thursday	Pimienta, Veronique	University of Toulouse	Dichloromethane (DCM) drop on an aqueous surfactant solution: pattern formation and flow field visualization
22	Wednesday/Thursday	Sato, Daichi	Tokyo university of science	Dynamics of structural change in micro-sized self-assembly of liquid crystal induced by photo irradiation
23	Wednesday/Thursday	Schusztter, Gabor	University of Szeged	Synthesis of metal-organic framework functionalized macroscopic flow-through precipitate tubes

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24	Wednesday/Thursday	Stich, Michael	University King Juan Carlos	Replicating spot solutions revisited
25	Wednesday/Thursday	Straube, Arthur	Zuse Institute Berlin	Biochemical pH oscillators confined to lipid vesicles
26	Wednesday/Thursday	Sugiyama, Daiki	Keio University	Chemical dynamism of far-from-equilibrium Belousov-Zhabotinsky reaction system to produce far-from-equilibrium self-organized active matter
27	Wednesday/Thursday	TAKAI, Atsuro	National Institute for Materials Science	Design of Marangoni surfers in rhythmic motion based on pi-systems
28	Wednesday/Thursday	Tambovtsev, Ivan	University of Iceland	Tailoring Rotational Dynamics in Liquid Crystals with Fluorine-Substituted Molecular Motors: A Novel Approach to Responsive Material Design
29	Wednesday/Thursday	Tompkins, Nathan	Wabash College	Microfluidic Material Formation with an Electric Potential
30	Wednesday/Thursday	Toth, Agota	University of Szeged	Modeling of thiol waves in two-channel gel reactors
31	Wednesday/Thursday	Voss, Florian	University of Münster	Self-excited oscillations and motion of sessile drops covered by autocatalytic surfactants
32	Wednesday/Thursday	wang, yunjie	wyj1117@cumt.edu.cn	Super-helical Locomotion of Active BZ-self-oscillating Gel
33	Wednesday/Thursday	Wang, Hui	CHINA UNIVERSITY OF MINING AND TECHNOLOGY	Directional Motion of Asymmetric Self-Propelling MXene films
34	Wednesday/Thursday	Yu, Haodi	China University of Mining and Technology	Chirality transition of Self-Oscillating Gel Rotational Motion
35	Wednesday/Thursday	Zheng, Mingchuan	University of Cambridge	Pellet-grown chemical gardens in horizontal planar confined geometry: diffusion-controlled growth and osmotic fracture