

Poster Session

Schedule

Posters should be mounted, presented and removed according to the following schedule. Poster presenters are requested to be at the site of their posters at the designated times to discuss their presentation with participants. The poster sessions will not be chaired.

Mounting	September 13 (Tue), 9:00-14:00
Presentation	Odd Numbers: September 13 (Tue), 15:15-17:15 Even Numbers: September 15 (Thu), 14:00-16:00
Removal	September 16 (Fri), 9:00-13:10

Presenters are requested to remove their posters by themselves.
Posters that remain mounted after the designated removal time may be disposed of.

Poster Awards

The International Society for Extremophiles (ISE) and Extremophiles2016 will honor several young researchers with Poster Awards. Candidates of this award are Students, Post Docs and other Non-faculty members. The laureates will be selected by a jury based on the quality and originality of the work and clarity of the poster presentation. The award ceremony will take place on September 16 (Fri), before the Closing ceremony.

Posters

- P1 Microbial Methanotrophy in High-Temperature Geothermal Systems in New Zealand**
Karen M. Houghton, Ian R. McDonald, Matthew B. Stott
- P2 Insight into Resistome and Plasmidome of Antarctic Psychrophilic Bacteria**
Krzysztof Romaniuk, Anna Ciok, Przemysław Decewicz, Karol Budzik, Tomasz Krucon, Witold Uhrynowski, Lukasz Dziewit
- P3 New Developments in *Caldi* World: Genomics, Pan-Genomics and MetaGenomics of the Extremely Thermophilic Genus *Caldicellulosiruptor***
Laura L. Lee, Sara E. Blumer-Schuetz, Javier A. Izquierdo, Jonathan M. Conway, Jeffrey V. Zurawski, Piyum A. Khatibi, Michael W.W. Adams, Robert M. Kelly
- P4 Analysis of the Predominant Microflora in High Temperature Compost Degrading Middle Gut Gland of Scallop**
Takahiro Yoshii, Takafumi Sugihara, Toshiyuki Moriya, Tairo Oshima
- P5 New Thermophilic Proteobacteria Capable of Chemolithoautotrophic Utilization of Sulfur Compounds**
Galina B. Slobodkina, Elizaveta A. Bonch-Osmolovskaya, Alexander I. Slobodkin
- P6 Analysis on Microbial Diversity of Cattle Farming Waste Composting System**
Toshiyuki Moriya, Takahiro Yoshii, Tairo Oshima
- P7 Fluctuation of Microbial Community Structure along a Salinity Gradient: A Metagenomic Study**
Kabilan Mani, Najwa Taib, Mylène Hugoni, Gisèle Bronner, Didier Debroas, Judith M. Bragança
- P8 *Acidibacillus ferrooxidans* and *A. sulfuroxidans*; nov. gen., spp. gen.: Extremely Acidophilic Iron-Oxidizing and Iron-Reducing *Firmicutes* with Global Distribution in Acidic Environments**
Roseanne B. Holanda, Sabrina Hedrich, David B. Johnson
- P9 Characterization of Novel Thermoacidophilic Archaeon, Strain HS-1, Belonging to the Order Sulfolobales Isolated from a Terrestrial Acidic Hot Spring, Hakone Ohwaku-dani, Japan**
Hiroyuki D. Sakai, Norio Kurosawa

- P10** **Withdrawn**
- P11** **The Role of Protein Stability in Evolutional Process**
Ryo Kurahashi, Satoshi Sano, Kazufumi Takano
- P12** **Deep-sea Bacteria Involved in Degradation of Aliphatic and Aromatic Hydrocarbons in Hydrothermal Environments**
Wanpeng Wang, Rongqiu Zhang, Lin Wang, Chunming Dong, Xiang Zeng, Zongze Shao
- P13** **Searching for Ancestors of Eukaryotic Cells Based on Phylogenetic Analyses of Aminoacyl-tRNA Synthetase**
Ryutarō Furukawa, Mizuho Nakagawa, Takuya Kuroyanagi, Shin-ichi Yokobori, Akihiko Yamagishi
- P14** **A Diel Temporal Variation of Taxonomic Diversity of Microbial Communities in the Water Column of Meromictic Soda Lake Doroninskoe, Transbaikalia, Russia**
Natalia Belkova, Evgeniya Matyugina, Svetlana Borzenko, Pavel Lukyanov, Marsel Kabilov, Olga Baturina
- P15** **Dynamics of the Microbial Community Structure in the Meromictic Soda Lake Doroninskoe (Transbaikalia, Russia) during Ice Period**
Evgeniya Matyugina, Natalia Belkova, Svetlana Borzenko, Pavel Lukyanov, Marsel Kabilov
- P16** **Evolution of Cyanobacterial Promoter Sequences and its Relationships to the Rise of Atmospheric Oxygen 2.2-2.45 Billion Years Ago**
Mariko Harada, Ryutarō Furukawa, Shin-ichi Yokobori, Eiichi Tajika, Akihiko Yamagishi
- P17** **Genomic Insights into the Evolution and Physiology of the Candidate Bacterial Phylum TG3**
Andrey V. Mardanov, Dmitry Sorokin, Andrey Rakitin, Vadim Gumerov, Alexey Beletsky, Nikolay V. Ravin
- P18** **New Psychrophilic Clostridia from Polar Environments**
Viktoria Shcherbakova, Nadezhda Alexeenko, Vassily Mironov, Elizaveta Rivkina, Yoshitaka Yoshimura
- P19** **Antimicrobial Resistance of Moderately Halophilic *Bacillus* Isolates Obtained from Salted Sheep Skins**
Meral Birbir, Pinar Caglayan, Cristina Sánchez-Porro, Antonio Ventosa
- P20** **Ancestral Sequence Reconstruction to Learn about the Environment of Early Life**
Satoshi Akanuma, Shin-ichi Yokobori, Akihiko Yamagishi
- P21** **Isolation and Identification of Cu, Fe-tolerant Bacteria from Myoho Copper Mine Spoils, Wakayama**
Yui Hamaji, Yurie Ohiwa, Natsumi Yoshioka, Mayu Kanamoto, Kouta Nagai, Daiki Fujimoto, Narumi Maegawa, Kenji Akiyoshi-Hiraoka, Shota Inoue, Ken-ichi Nishiyama, Takanori Satoh
- P22** **Characterization of Novel Hyperthermophilic and Acidophilic Crenarchaeon *Sulfurisphaera* sp. strain KR-1 Isolated from a Terrestrial Acidic Hot Spring in Indonesia**
Kazuhiko Tsuboi, Hiroyuki D. Sakai, Naswandi Nur, Antonius Suwanto, Norio Kurosawa
- P23** **Isolation of Halophilic Archaea from Indonesian Solar Salterns**
Koji Mori, Dian Alfian Nurcahyanto, Puspita Lisdiyanti, Hiroko Kawasaki
- P24** **Microbially-Influenced Corrosion of Aluminum AA 2024-T3 Aeronautical Alloy by Antarctic Bacteria**
Patricio A. Muñoz, Daniel Ortega, Mamie Sancy, Jenny M. Blamey
- P25** **Derived Features of Archaeal Membranes Having G1P-Polar Lipids Suggested by Molecular Phylogenetic Analyses of G1P Dehydrogenase, G3P Dehydrogenases, and Glycerol Kinase**
Shin-ichi Yokobori, Yoshiki Nakajima, Satoshi Akanuma, Akihiko Yamagishi

- P26 Diversity of Prokaryotes and Eukaryotic Microbes in a Freshwater Glacial Lake located in Langhovde, East Antarctica**
Norio Kurosawa, Aoi Chaya, Akinori Kawamata, Satoshi Imura
- P27 16S Metagenomic Analysis of Prokaryotic Communities in Inland Hypersaline Lakes of Russia**
Elena A. Selivanova, Yuri A. Khlopko, Natalia E. Gogoleva, Andrey O. Plotnikov
- P28 The Taxonomic Structure of Planktonic Protistian Communities in Inland Saline Lakes (Sol-Iletsk, Russia) Revealed by 18S Metagenomic Sequencing**
Andrey O. Plotnikov, Elena A. Selivanova, Yuri A. Khlopko, Natalia E. Gogoleva
- P29 The Impact of Halophilic Microorganisms in Leather Industry**
Meral Birbir
- P30 Speciation Model of *Halorubrum* Strains Elucidated Using Five Taxonomic Approaches**
Rafael R. de la Haba, Paulina Corral, Carmen Infante-Domínguez, Cristina Sánchez-Porro, Andrea M. Makkay, Mohammad A. Amoozegar, R. Thane Papke, Antonio Ventosa
- P31 Novel Deep-branching Lineages of Archaea from Kamchatka Hot Springs**
Anna Perevalova, Tatiana Kochetkova, Evgeny Taranov, Arseny Dubin, Olga Podosokorskaya, Alexander Lebedinsky, Alexander Merkel, Elizaveta Bonch-Osmolovskaya
- P32 Uncultured Bacteria from Thermal Springs of Baikal Rift Zone**
Aryuna A. Radnagurueva, Svetlana V. Zaitseva, Elena V. Lavrentieva
- P33 Horizontal Gene Transfer and its Directionality in some Thermophile Case Studies**
Juan M. Gonzalez, Fernando H. Sant'Anna, Alba Cuecas
- P34 Diversity of RubisCo Phylotypes in Thermophilic Isolates and Metagenome of Uzon Caldera, Kamchatka, Hot Springs**
Nikolai A. Chernyh, Evgeny N. Frolov, Ilya V. Kublanov, Arseny V. Dubin, Andrey V. Mardanov, Alexander V. Lebedinsky, Elizaveta A. Bonch-Osmolovskay
- P35 Ammonium- and Ferrous Iron-rich Venting Supports Stratified Chemosynthetic Microbial Communities at the Shallow Hydrothermal Field off Basiluzzo Islet (Aeolian Volcanic Archipelago)**
Violetta La Cono, Gina La Spada, Teresa Romeo, Valentina Esposito, Giuseppe Sabatino, Simone Canese, Franco Andaloro, Michail M. Yakimov
- P36 Ecological Distribution of Extreme Thermophiles in Various Environments**
Kathrina Mae Bienes, Minoru Asada, Yukihiro Tashiro, Kenji Sakai
- P37 Eukaryotic Microorganisms Associated with Coal and Metal Mine Sites in Southern Siberia**
Yulia A. Frank, Vadim A. Il'iushin, Evgenii V. Plotnikov, Anastasiia S. Sopyriaeva, Anna L. Gerasimchuk, Olli H. Tuovinen, Olga V. Karnachuk
- P38 Ribulose-1,5-bisphosphate Carboxylase (RuBisCO), a Key Enzyme of Carbon Dioxide Fixation from Aerobic Thermophilic Heterotrophs**
Darima D. Barkhutova, Valentina G. Budagaeva, Marina V. Sukhacheva, Denis S. Grouzdev, Vladimir M. Gorlenko, Boris B. Kuznetsov
- P39 Japan Collection of Microorganisms, Developing the Capacity for *ex situ* Conservation and Sustainable Use of Microbial Resources**
Takashi Itoh, Moriya Ohkuma
- P40 A Systematic Study on Novel Thermoacidophilic Archaea Related to *Sulfolobus metallicus* Isolated from Hot Springs in Japan**
Tatsuki Miura, Etsuko Kawai, Tomonori Takashina, Takashi Itoh, Moriya Ohkuma
- P41 Microbial Activity and Diversity of Prokaryotes in Acidic Hot Springs of Kamchatka**
Maria I. Prokofeva, Alexander Y. Merkel, Igor I. Rusanov, Nikolay V. Pimenov, Elizaveta A. Bonch-Osmolovskaya

- P42 Diversity and Functional Activity of Cyanobacteria of the Lakes Coast Strip of Lake Baikal (Republic of Buryatia, Russia)**
Dulma D. Tsyrenova, Darima D. Barkhutova
- P43 Vector Particles Originating from Polaribacter Changed the Minimum and Optimum Growth Temperature of *Escherichia coli***
Hiroshi X. Chiura, Yohei Kumagai, Susumu Yoshizawa, Kazuhiro Kogure
- P44 A Novel Thermophilic Archaeon Representing Hot *Thaumarchaeota*-related Clade2 (HTC2), Isolated from a Terrestrial Hot Spring in Japan**
Mai Nagamori, Masahumi Ohnishi, Shingo Kato, Tomonori Takashina, Takashi Itoh, Moriya Ohkuma
- P45 Molecular Evolution of [NiFeSe] Hydrogenases in 3D based on Phylogenetic and MD Simulation of Ancestral and Extant Sequences**
Takashi Tamura, Michiko Nemoto, Kenji Inagaki
- P46 Inferring the pH Environment of Ancient Organisms by Characterizing Resurrected Proteins**
Takahiro Sasamoto, Satoshi Akanuma, Mizumo Bessho, Shin-ichi Yokobori, Akihiko Yamagishi
- P47 Flipping Chromosomes of Thermococcales**
Matteo Cossu, Catherine Badel, Daniele Gadelle, Patrick Forterre, Jacques Oberto
- P48 The Archaeal Community in the Vlasa Hot Spring, in Velingrad, Bulgaria, is Extremely Diverse and Novel**
Margarita Stoilova-Disheva, Dimitrina Lyutskanova, Ivanka Boyadzhieva, Nadja Radchenkova, Nicoleta Boteva, Nils-Kåre Birkeland, Margarita Kambourova
- P49 Bacterial Diversity and Functional Activity of Microbial Communities in Hot Springs of the Baikal Rift Zone**
Darima D. Barkhutova, Elena V. Lavrentjeva, Aryuna A. Radnagurueva, Natalia L. Belkova, Zorigto B. Namsaraev, Vladimir M. Gorlenko, Bair B. Namsaraev
- P50 The Membrane Fouling Biofilm: An Extreme Environment in Wastewater Treatment and Reclamation**
Tomohiro Inaba, Tomoyuki Hori, Ronald R. Navarro, Hidenobu Aizawa, Atsushi Ogata, Hiroshi Habe
- P51 Enrichment of Methanogenic Microorganisms from the Deep Subsurface of the Iberian Pyritic Belt**
Tânia Leandro, Nuria Rodríguez, Patricia Rojas-Ojeda, José L. Sanz, Milton S. da Costa, Ricardo Amils
- P52 Novel Anaerobically Acetate-assimilating Microorganisms Surviving at Thermodynamic Limits in Wetland Soil as Revealed by Ultra-high-sensitivity rRNA-SIP**
Tomo Aoyagi, Cuong Tu Ho, Daisuke Mayumi, Atsushi Ogata, Hiroshi Habe, Tomoyuki Hori
- P53 Thermophilic Microbial Community of Hot Waters Pumped from Deep Subsurface Aquifers at BuGok Area in Korea**
Man-Young Jung, Joo-Han Gwak, Woon-Jong Yu, Md. Arifat Islam, Jong-Geol Kim, Sung-Keun Rhee
- P54 Ultra-high-sensitivity rRNA-SIP Reveals Nitrate-driven Metabolic Interaction of Sulfur-oxidizing Bacterial Communities in Deposited Marine Sediments**
Tomo Aoyagi, Ronald R. Navarro, Daisuke Mayumi, Hiroshi Habe, Yoko Katayama, Mitsuru Takasaki, Tomoyuki Hori
- P55 Acidophilic Methanotroph Community Enriched at pH 4 by a Sequencing Batch Reactor**
Man-Young Jung, Woon-Jong Yu, Md. Arifat Islam, Jong-Geol Kim, Sung-Keun Rhee
- P56 *Raineyella tepidiphila* gen. nov., sp. nov. a Slightly Thermophilic Bacterium Isolated from a Hot Spring in Portugal and the Proposal of *Raineyellaceae* fam. nov.**
Luciana Albuquerque, Olga Lage, Alexandre Lobo-da-Cunha, Milton S. da Costa
- P57 First Insights into the Genetic Diversity and Population Structure of *Bacillus cereus* Group Bacteria from Diverse Marine Environments**
Yang Liu, Qiliang Lai, Juan Du, Fengqin Sun, Zongze Shao

- P58 Oil-Bioremediation in Hypersaline Microcosms**
Dina M. Al-Mailem, Maha A. Al-Deieg, Mohamed Eliyas, Samir S. Radwan
- P59 *Thermococcus piezophilus* sp. nov., An Hyperthermophilic Archaeon with a Broad Pressure Range for Growth, Isolated from the Mid-Cayman Rise**
Cécile Dalmasso, Philippe Oger, Gwendoline Selva, Damien Courtine, Stéphane L'Haridon, Alexandre Garlaschelli, Erwan Roussel, Junichi Miyazaki, Julie Reveillaud, Mohamed Jebbar, Ken Takai, Lois Maignien, Karine Alain
- P60 Common and Distinct Strategies: Patterns of Multiple Stresses Adaptation in a Wide-Growth-Range Archaeon**
Weishu Zhao, Huahua Jian, Xiaopan Ma, Yu Zhang, Xiang Xiao
- P61 An Integrative Genomic Island PYG1 in the Piezophilic Hyperthermophilic Archaeon *Pyrococcus yayanosii* Played a Role in High Temperature Adaptation**
Zhen Li, Xiang Xiao, Jun Xu
- P62 Highly Freeze Tolerant Yeasts Isolated from the Coldest Region, Okhotsk Region, Hokkaido, Japan**
Kazuki Morimoto, Yusuke Tsukiyama, Yuki Shimizu, Manako Fujita, Masaaki Konishi
- P63 Acetate-tolerant Yeast Shows Great Potential for Bioprocess Using Lignocellulosic Feed stocks**
Masashi Ishida, Tomoko Arakawa, Yuta Kato, Masaaki Konishi
- P64 Investigation of Oxidative Stress with Fluorescent Sensors in Deep-sea Bacterium *Shewanella piezotolerans* WP3 under Multiple Environmental Stresses**
Zhe Xie, Hanyang Hu, Huahua Jian, Xiang Xiao
- P65 *Pseudomonas fragi* A22, A Psychrophilic Bacterium Accumulating Lipopolysaccharide and Producing Igloo-like Structure in Cell-wall**
Weilan Shao, Xingxing Guo, Hongcheng Wang
- P66 First Archaeal Infectious Disease in Human: A New Type of Chronic Encephalomyelitis**
Hiroshi Takashima, Yusuke Sakiyama, Naoaki Kanda, Shuji Izumo
- P67 A Novel Uncultured Iron and Sulfur Oxidizing Bacterium of the Genus *Gallionella* Revealed by Metagenomic Analysis of a Low-Temperature Acid Mine Drainage**
Vitaly Kadnikov, Denis Ivashenko, Alexey Beletsky, Andrey Mardanov, Erhzena Danilova, Nikolay Pimenov, Olga Karnachuk, Nikolay V. Ravin
- P68 Involvement of PP1/PP2A in Tolerance and the Initial Transcriptional Response to Desiccation in Anhydrobiotic Tardigrade, *Hypsibius dujardini***
Koyuki Kondo, Yuki Katou, Katsuhiko Shirahige, Takeo Kubo, Takekazu Kunieda
- P69 Antifreeze Proteins in Antarctic Bacteria: Study of Their Structure and Application**
Patricio A. Muñoz, Sebastián Márquez, Fernando D. González-Nilo, Valeria Márquez, Jenny M. Blamey
- P70 Direct Observation of the Swimming Motility of Deep-sea Bacterium at High-pressure Conditions**
Masayoshi Nishiyama, Chiaki Kato, Yoshie Harada
- P71 The Effects of Adding Various Substrates for Cultivating Methanogenic Archaea**
Takumi Imajo, Junpei Hashiguchi, Takeshi Kobayashi, Chiaki Imada, Takeshi Terahara, Ryo Matsumoto
- P72 Halophilic Archaea Phenotypic Information Explorer (HAPIE)**
André Antunes, Allan A. Kamau, Marta F. Simões, Vladimir B. Bajic
- P73 Uncommon Functional Properties of the Piscine 26S Proteasomes from the Antarctic Notothenioids *Trematomus Bernacchii* and *Chionodraco Hamatus***
Alessia Riccio, Marco Balestrieri, Marta Gogliettino, Bruna Agrillo, Antonio Pepe, Mosè Rossi, Ennio Cocca, Gianna Palmieri

- P74** **Effects of High Dose Radiation on Locomotion in *Caenorhabditis elegans***
Akira Yamasaki, Michiyo Suzuki, Tomoo Funayama, Yasuhiko Kobayashi, Qiu-Mei Zhang-Akiyama
- P75** **Adaptive Laboratory Evolution of a Hyperthermophilic Archaeon *Thermococcus eurythermalis* A501 Provides Insights into Environmental Adaptation and Evolution**
Xiaopan Ma, Weishu Zhao, Hao Leng, Xiang Xiao
- P76** **Metabolism Dealing with Thermal Degradation of NAD⁺ in the Hyperthermophilic Archaeon *Thermococcus kodakarensis***
Shin-ichi Hachisuka, Takaaki Sato, Haruyuki Atomi
- P77** **Identification of Ice-binding Proteins of Arctic/Antarctic Chlorophyceae using Transcriptome Analyses**
Sung Mi Cho, Sanghee Kim, Sungkyung Kim, Han-Gu Choi, Hyun Park, Jungeun Lee
- P78** **Open Access Characterization of Extremophiles for Potential Application as Pioneer Organisms in Martian Ecopoiesis**
Aaron J. Berliner, Amor A. Menezes, Eli Groban, Christopher P. McKay, Adam P. Arkin
- P79** **Life in Subsurface Mars Analogue Sites: Culturing Microbes Adapted to Extreme Conditions in Icelandic Caves and Aquifers**
Oddur Vilhelmsson, Gudny V. Thorsteinsdottir, Sean Scully, Anett Blischke, Bjarni Gautason
- P80** **Development of the Fluorescent Pigment System for the Mars Life Search Exploration by the Fluorescence Microscope**
Yuka Murano, Yoshitaka Yoshimura, Atsuo Miyakawa, Satoshi Sasaki, Shin-ichi Yokobori, Takehiko Sato, Akihiko Yamagishi
- P81** **Activation of Methanogenesis by Greigite**
Kensuke Igarashi, Yasuhisa Yamamura, Tomohiko Kuwabara
- P82** **Functional Characterization of Two AP Endonucleases from Hyperthermophilic Crenarchaeon *Sulfolobus islandicus***
Zhou Yan, Jinfeng Ni, Yulong Shen
- P83** ***In silico* Identification of Radiation/Desiccation Response Regulon in *Deinococcus grandis***
Kakeru Kurosawa, Kota Omoso, Hajime Takeshima, Katsuya Satoh, Issay Narumi
- P84** **Disruption of DNA Repair Promoting Gene *pprA* in the Moderate Thermophile *Deinococcus geothermalis* and Expression of the Gene in the Extreme Thermophile *Thermus thermophilus***
Gaku Shimada, Momoka Kobayashi, Katsuya Satoh, Issay Narumi
- P85** **A Novel DNA Repair Pathway for Damaged Bases in *Thermococcales***
Miyako Shiraishi, Sonoko Ishino, Yuriko Egashira, Shinichi Kiyonari, Takeshi Yamagami, Isaac Cann, Yoshizumi Ishino
- P86** **Chromosomal DNA Organization in *Sulfolobus*: Roles of Cren7 and Sul7d**
Zhenfeng Zhang, Ershuang Zhao, Yu Fu, Li Huang
- P87** **Involvement of Mutagenesis Promoting Gene *dnaE2* of *Deinococcus grandis* in Repair of UV-induced DNA Damage**
Kota Omoso, Katsuya Satoh, Issay Narumi
- P88** **What is the Role of the Cdc45/RecJ Protein in the Archaeal Replicative Helicase?**
Mariko Nagata, Sonoko Ishino, Takeshi Yamagami, Jan-Robert Simons, Tamotsu Kanai, Haruyuki Atomi, Yoshizumi Ishino
- P89** **Ancient DNA Repair Genes from the Virus World**
Romain Blanc-Mathieu, Hiroyuki Ogata
- P90** **Reverse Gyrase Deficient Strain of the Thermophilic Archaeon *Sulfolobus acidocaldarius* Exhibits Sensitivity to UV Irradiation**
Shoji Suzuki, Norio Kurosawa

- P91 Hyperthermophile-Derived Branched-Chain Polyamine Causes Specific Change on the Higher-order Structure of DNA**
Yuta Shimizu, Akira Muramatsu, Yuko Yoshikawa, Wakao Fukuda, Naoki Umezawa, Yuhei Horai, Tsunehiko Higuchi, Shinsuke Fujiwara, Tadayuki Imanaka, Kenichi Yoshikawa
- P92 The Euarchaea DNA Replication Fork Contains Two Copies of DNA Polymerase D**
Shuhong Lu, Zimeng Chen, Zhuo Li
- P93 Molecular Characterization of DNA Polymerase D from the Hyperthermophilic Archaeon, *Thermococcus kodakarensis***
Natsuki Takashima, Sonoko Ishino, Takeshi Yamagami, Mika Takafuji, Ryotaro Matsuo, Kouta Mayanagi, Yoshizumi Ishino
- P94 Visualisation of Chromatin Dynamics in the Archaeon *Haloflex volcanii***
Darya Ausiannikava, Abderrahmane Kaidi, Thorsten Allers
- P95 Invention of a Clamp-assisted PCR Enzyme Based on Taq DNA Polymerase**
Takeshi Yamagami, Sonoko Ishino, Minako Imai, Natsumi Watanabe, Yoshizumi Ishino
- P96 A Newly Identified Enzyme from Hyperthermophilic Archaea Acts on a Mismatch-Containing DNA**
Sonoko Ishino, Yuki Nishi, Soichiro Oda, Takashi Uemori, Takehiro Sagara, Nariaki Takatsu, Takeshi Yamagami, Tsuyoshi Shirai, Yoshizumi Ishino
- P97 Mutant Frequency in DNA Polymerase B Disruptant of *Thermococcus kodakarensis***
Takashi Kushida, Issay Narumi, Sonoko Ishino, Yoshizumi Ishino, Shinsuke Fujiwara, Tadayuki Imanaka, Hiroki Higashibata
- P98 The Roles of TrmBL2 protein on Chromosome Architecture and Protection in *Thermococcus kodakarensis***
Hugo Maruyama, Takashi Kushida, Hiroki Higashibata, Artem K. Efremov, Jie Yan, Haruyuki Atomi, Kunio Takeyasu
- P99 Reverse Gyrase Mutants of *Thermococcus kodakarensis***
Hiroki Higashibata, Rie Matsumi, John N. Reeve, Jacques Oberto, Patrick Forterre
- P100 Isolation and Analysis of the OxyR-Controlled Genes in Response to Oxidative Stress in *Thermus thermophilus* HB27**
Haruna Koike, Toshihiro Ohta, Shin-ichi Tokishita
- P101 Expression of Various Disrupted tRNA Genes in a Red Alga *C. merolae***
Akiko Soma, Saori Hiromoto, Kei Sugita, Kenta Sato
- P102 Translation and Secretion of a Haloarchaeal Serine Protease Capable of Autocatalytic Activation**
Xiao-Feng Tang, Bing Tang, Wei Tang, Xin Du
- P103 Expression of Nitrogenase from a Thermophilic Non-heterocystous Cyanobacterium *Leptolyngbya* sp. O-77**
Nga Thi Thanh Nguyen, Trung Kien Tran, Kohsei Tsuji, Ki-Seok Yoon, Seiji Ogo
- P104 Crystallographic Study on Archaeal Ubiquitin-like Protein**
Masahiro Fujihashi, Mizuna Kittaka, Tamotsu Kanai, Haruyuki Atomi, Kunio Miki
- P105 Analysis of Protein Acylation on Enzymes Involved in Branched-Chain Amino Acid Biosynthesis in *Thermus thermophilus***
Ayako Yoshida, Makoto Nishiyama, Minoru Yoshida, Saori Kosono
- P106 Evolution of the Deviant Genetic Code in Mycoplasmas and Other Mollicutes**
Yoshitaka Bessho, Henri Grosjean, Masami Ueta, Chieko Wada, Akira Wada, Shin-ichi Yokobori
- P107 The Long and Branched Polyamines of *Thermus thermophilus*, an Extremely Thermophilic Eubacterium, Are Required for Maintenance of Ribosome at High Temperatures**
Misa Nakashima, Ryota Yamagami, Yuki Ochi, Chie Tomikawa, Toshiyuki Moriya, Dominique Fourmy, Satoko Yoshizawa, Tairo Oshima, Hiroyuki Hori

- P108 Genetic Analyses of the Functions of [NiFe]-hydrogenase Maturation Endopeptidases in the Hyperthermophilic Archaeon *Thermococcus kodakarensis***
Tamotsu Kanai, Ayako Yasukochi, Jan-Robert Simons, Joseph W. Scott, Wakao Fukuda, Tadayuki Imanaka, Haruyuki Atomi
- P109 Biosynthesis of Sulfur-modification of tRNA in a Thermophilic Bacterium, *Thermus thermophilus***
Shin-ichi Asai, Kimitsuna Watanabe, Naoki Shigi
- P110 Proliferation of *Thermosipho globiformans* studied using High-Temperature Microscopy**
Tomohiko Kuwabara, Kensuke Igarashi
- P111 Membrane Vesicle Biogenesis in the Thermococcales**
Sukhvinder Gill, Rie Matsumi, Aureore Gorlas, Evelyne Marguet, Jacques Oberto, Patrick Forterre
- P112 Application of ω -Ethyne Analog of Eicosapentaenoic Acid to Studies on Cold-Adaptation Mechanism of *Shewanella livingstonensis* Ac10**
Tomohisa Tokunaga, Bunta Watanabe, Jun Kawamoto, Tatsuo Kurihara
- P113 Molecular Characterization of Eicosapentaenoic Acid-Containing Membrane Vesicles Produced by a Psychrotrophic Bacterium, *Shewanella livingstonensis* Ac10**
Fumiaki Yokoyama, Jun Kawamoto, Tomoya Imai, Takuya Ogawa, Tatsuo Kurihara
- P114 Analysis of Protein Secretion System of a Membrane-vesicle producing Cold-adapted Bacterium, *Shewanella* sp. HM13**
Chen Chen, Soichiro Kawai, Jun Kawamoto, Tomoya Imai, Tatsuo Kurihara
- P115 Gene Expression in *E. coli* of S-layer Protein from *Thermococcus kodakarensis* KOD1 Provides the Cells with High Aggregability**
Kusuko Obara, Tomoko Agata, Masaaki Morikawa
- P116 Characterization of a Putative Porin of the Metal-reducing Bacterium *Geobacter sulfurreducens***
Ishrat Jahan, Ryuta Tobe, Hisaaki Mihara
- P117 Functional Analysis of Type IV pilus Traffic ATPases of the Extreme Thermophile *Thermus thermophilus***
Masatada Tamakoshi, Kenji Tsuneizumi, Naoya Chiba, Tairo Oshima, Akihiko Yamagishi
- P118 Sulfur Reduction at Low pH: From Environment to Application**
Anna P. Florentino, Michael van den Born, Alfons J.M. Stams, Irene Sánchez-Andrea
- P119 Crystal Structure of the LysY·LysW Complex from *Thermus thermophilus*: Implication of Amino Group-carrier Protein-mediated Lysine Biosynthetic Metabolon**
Tetsu Shimizu, Takeo Tomita, Tomohisa Kuzuyama, Makoto Nishiyama
- P120 Discovery and Analysis of Novel-type Phosphoserine Phosphatases in a Thermophilic and Chemolithoautotrophic Bacterium, *Hydrogenobacter thermophilus***
Yoko Chiba, Keugtae Kim, Hiroyuki Arai, Masaharu Ishii
- P121 Mechanistic and Kinetic Differences between Branched-chain Polyamine Synthases of *Thermus thermophilus* and *Thermococcus kodakarensis***
Gita A. Wihardja, Ryota Hidese, Shinsuke Fujiwara
- P122 Leucine-responsive Regulator in an Acetic Acid Bacterium Regulates Primary Pathways for Cell Growth**
Yuri Ishii, Naoki Akasaka, Hisao Sakoda, Ryota Hidese, Tatsuaki Abe, Yu Kanesaki, Morio Ishikawa, Akiko Okamoto-Kainuma, Shinsuke Fujiwara
- P123 Ferric Iron Reduction by a Piezophilic Thermophilic Fermentative Bacterium *Anoxybacter fermentans* Strain DY22613 from Deep Sea Hydrothermal Vents**
Xiang Zeng, Xi Li, Zhao Zhang, Zongze Shao

- P124 Efficient Formation of Proton Motive Force under Alkaline Condition in Alkaliphilic *Bacillus* spp.**
Toshitaka Goto, Shinichi Ogami, Toshikazu Hirabayashi, Hajime Morimoto, Koji Yamazaki, Norio Inoue, Hidetoshi Matsuyama, Isao Yumoto
- P125 Identification of the Gene Encoding Trehalase in the Thermoacidophilic Archaeon, *Sulfolobus acidocaldarius***
Junho Lee, Areum Lee, Jeong Hyun Moon, Whiso Lee, Kyoung-Hwa Choi, Jaeho Cha
- P126 The Role of the Sole Cysteine Residue (C301) of Tetrathionate Hydrolase from the Acidophilic Sulfur-oxidizing Bacterium, *Acdithiobacillus ferrooxidans***
Tadayoshi Kanao, Naruki Hase, Hisayuki Nakayama, Kazuo Kamimura
- P127 Analysis of the Adaptation Mechanism to the Environment of the Na⁺-driven Flagellar Motor Stator MotPS in *Bacillus* species**
Yuka Takahashi, Yukina Noguchi, Masahiro Ito
- P128 Functional and Structural Molecular Adaptation Strategy in Cytochrome *c'* from Thermophilic *Hydrogenophilus thermoluteolus***
Sotaro Fujii, Daisuke Yamane, Yoshihiro Sambongi
- P129 A Functional Analysis of K⁺ and Na⁺-coupled Stator Complex of Flagellar Motor from *Bacillus tryoxylicola***
Shun Naganawa, Riku Imazawa, Masahiro Ito
- P130 Identification of a VapBC Toxin-Antitoxin System in a Thermophilic Bacterium *Thermus thermophilus* HB27 and Its Physiological Function**
Yuqi Fan, Takayuki Hoshino, Akira Nakamura
- P131 A Structurally Novel Chitinase from the Chitin-degrading Hyperthermophilic Archaeon, *Thermococcus chitonophagus***
Ayumi Horiuchi, Mehwish Aslam, Tamotsu Kanai, Haruyuki Atomi
- P132 An Archaeal ADP-dependent Kinase that Phosphorylates Free Serine**
Takaaki Sato, Yuki Makino, Hiroki Kawamura, Shin-ichi Hachisuka, Ryo Takeno, Tadayuki Imanaka, Haruyuki Atomi
- P133 Dimethyl Sulfoxide Reduction by a Hyperthermophilic Archaeon *Thermococcus onnurineus* NA1 via a Cysteine-cystine Redox Shuttle**
Ae Ran Choi, Min-Sik Kim, Sung Gyun Kang, Hyun Sook Lee
- P134 Genome Sequence and Transcriptome Analysis of Hydrogenogenic Carboxydotrophic Bacterium, *Carboxydotherrmus pertinax***
Yuto Fukuyama, Kimiho Ohmae, Yasuko Yoneda, Takashi Yoshida, Yoshihiko Sako
- P135 Enzymatic Cascade of a Marine *Novosphingobium* Cleaving β -O-4 Linkages of a Wood Component, Lignin**
Yukari Ohta, Shinro Nishi, Ryoichi Hasegawa, Yuji Hatada
- P136 Identification of the Minimum Functional Region of MotS that can be Used as Both a Na⁺ and K⁺-driven Flagellar Stator Subunit in Alkaliphilic *Bacillus alcalophilus***
Mami Yamamoto, Atsuko Taguchi, Masafumi Iwata, Masahiro Ito
- P137 Function of Nucleotide-Based Second Messenger(s) in Adaption to Extreme Environment for *Pyrococcus yayanosii* CH1**
Lei Feng, Feng-Ping Wang, Xiang Xiao, Xi-Peng Liu
- P138 Identification of Genes Related to Sugar Metabolisms in Hyperthermophilic Archaeon by Random Mutagenesis**
Takehiro Azuma, Ryohei Futatsuishi, Izumi Orita, Satoshi Nakamura, Tadayuki Imanaka, Toshiaki Fukui
- P139 Regulation of Coenzyme A Biosynthesis in the Hyperthermophilic Bacterium *Thermotoga maritima***
Takahiro Shimosaka, Hiroya Tomita, Haruyuki Atomi

- P140 The Genetic Factor Involved in Colony Formation**
Kazuki Noshō, Tetsuhiro Ogawa, Makoto Hidaka, Haruhiko Masaki
- P141 A Novel Inosine/Guanosine Kinase in *Archaeoglobus fulgidus***
Riku Aono, Takaaki Sato, Tadayuki Imanaka, Haruyuki Atomi
- P142 Oxidative Stress Response of *Deinococcus geothermalis* Via a Cystine Importer**
Minwook Kim, Sung-Jae Lee
- P143 Carbon Source Dependent Phosphoproteomic Analysis of *Methanosarcina mazei* N2M9705**
Shu-Jung Lai, Mei-Chin Lai, Shih-Hsiung Wu
- P144 Complete Genome and Methylome Analysis of Psychrotrophic Bacterial Isolates from Antarctic Lake Untersee**
Alexey Fomenkov, Vladimir N. Akimov, Lina V. Vasilyeva, Dale Andersen, Tamas Vincze, Richard J. Roberts
- P145 Identification of Proteins under Branched-chain Polyamine Control in a Hyperthermophilic Archaeon *Thermococcus kodakarensis***
Masafumi Hamakawa, Ryota Hidese, Shinsuke Fujiwara
- P146 New Insights into the Enzymology and Biotechnology of Acid Mine Drainage Formations as Revealed by Metagenomics**
Mónica Martínez-Martínez, Victoria Mesa, Celia Méndez-García, Ana I. Peláez, Jesús Sánchez, Manuel Ferrer
- P147 Metagenomic Analysis of Microbial Communities of Deep Subsurface Thermal Aquifers of Western Siberia Revealed Abundance of Uncultured Bacterial Lineages**
Vitaly Kadnikov, Andrey Mardanov, Alexey Beletsky, Yulia Frank, Olga Karnachuk, Nikolay V. Ravin
- P148 “Nanohaloarchaea” Population Genomes in Metagenomes from Siberian Hypersaline Soda Brines**
Charlotte D. Vavourakis, Rohit Ghai, Francisco Rodriguez-Valera, Dmitry Y. Sorokin, Susannah G. Tringe, Philip Hugenholtz, Gerard Muyzer
- P149 Crystallographic Studies of Two Enzymes Required for the Distinct CoA Production Pathway in Archaea**
Akiko Kita, Asako Kishimoto, Takahiro Shimosaka, Takuya Ishibashi, Hiroya Tomita, Yuusuke Yokooji, Tadayuki Imanaka, Haruyuki Atomi, Kunio Miki
- P150 Transcriptional Regulators in Hyperthermophilic Archaeon *Thermococcus kodakarensis***
Wakao Fukuda, Abdul Aziz Jazi, Keisuke Uchida, Mizuha Ichimura, Ayumi Ga, Tamotsu Kanai, Haruyuki Atomi, Tadayuki Imanaka
- P151 Highlights from the Exploration of Metagenomic Data from Deep-sea Brines of the Red Sea**
André Antunes, Intikhab Alam, Rania Siam, Hamza El-Dorry, Vladimir B. Bajic
- P152 Transcriptome Analysis of *Sphingobium* (*sp. ba1*) Cells Cultured in an Excess of Ni²⁺**
Luigi R. Ceci, Mariateresa Volpicella, Claudia Leoni, Caterina Manzari, Elisabetta Piancone, Matteo Chiara, Ernesto Picardi, Anna Maria D'Erchia, Massimo Trotta, Francesca Italiano, David S. Horner, Graziano Pesole
- P153 Genomic Analysis of *Geobacillus* Strains and their Potential Applications for Thermophilic Platform Host**
Min-Kyu Park, Yong-Jik Lee, Sang-Jae Lee, Sang-Jun Lee, Dong-Woo Lee
- P154 Comparative Multiomics Approach Reveals the Degradation Mechanism of Native Feather Keratin by *Fervidobacterium islandicum* AW-1**
Yong-Jik Lee, Ji-Yeon Kim, Hyeon-Su Jin, Chandrasekhar Kuppam, Sung Haeng Lee, Dong-Woo Lee
- P155 Proteomic Response of *Chlorella sorokiniana* CH03 Isolated from Microbial Mat of the Atacama Desert, Under Stress for Temperature**
Gladys Hayashida, Marcelo Garcés, Eliza Traipi, Mariella Rivas

- P156 Epibiosis Insights Associated with Deep-sea Hydrothermal Vent Shrimp *Rimicaris exoculata* Revealed by Metagenomics and Metatranscriptomics**
LiJing Jiang, ChunMing Dong, ZhaoBin Huang, ZongZe Shao
- P157 Temperature-dependent Transcriptome Analysis of the Arctic *Chlamydomonas* sp.**
Jungeun Lee, Sanghee Kim, Sungmi Cho, Hyun Park
- P158 The Study on the Two Co-Existing Lysogenic Viruses in the Haloarchaeal Strain *Natrinema* sp. J7 and the Interaction between the Viruses and their Host Cell**
Ying Liu, Ziqian Zhang, Jiao Wang, Yuchen Wang, Xiangdong Chen
- P159 Identification and Characterization of a *Sulfolobus* Ellipsoid Virus**
Haina Wang, Zhenqian Guo, Ping Zhu, Li Huang
- P160 Discovery of Bacteriophages Amongst the Order of *Thermotogales***
Coraline Mercier, Julien Lossouarn, Samuel Dupont, Nadège Bienvenue, Anne-Claire Baudoux, Thomas H.A. Haverkamp, Mohamed Jebbar, Camilla L. Nesbø, Claire Geslin
- P161 New Viruses of Hyperthermophilic Archaea *Pyrobaculum***
Tomohiro Mochizuki, Takuro Nunoura, Yoshihiro Takaki, Yukari Yoshida-Takashima, Aaron Berliner, Ken Takai
- P162 Diversity and Evolutionary Relationships of Temperate Phages in Deep-sea Chemolithoautotrophic *Epsilonproteobacteria*, *Nitratiruptor***
Yukari Yoshida-Takashima, Yoshihiro Takaki, Takuro Nunoura, Ken Takai
- P163 Genomic Characterization of a Temperate Phage of the Piezotolerant and Psychrotolerant *Pseudomonas* sp. from the Japan Trench at a Depth of 7,000 m**
Mitsuhiro Yoshida, Yukari Yoshida-Takashima, Takuro Nunoura, Ken Takai
- P164 Marine Phage DNA Polymerases with DnaJ_CXXCXGXG motifs**
Junghee Kim, Jhung-Ahn Yang, Eunji Park, Jong-Myoung Kim, Hyun-Myung Oh
- P165 Balancing Flexibility and Stability in Active Site of Cold-Adapted *Pseudomonas mandelii* Esterase EstK**
ChangWoo Lee, Ngoc Truongvan, Sei-Heon Jang
- P166 Can Thermostable Branched-chain Amino Acid Aminotransferases from Archaea and Thermophilic Bacteria be R-selective with Primary Amines?**
Ekaterina Bezsudnova, Daria Dibrova, Alena Nikolaeva, Tatiana Stekhanova, Tatiana Rakitina, Konstantin Boyko, Vladimir Popov
- P167 Developing Alkaliphilic *Bacillus* as Producer of Lactic Acid**
Yanfen Xue, Nilnate Assavasirijinda, Ying Meng, Deyong Ge, Bo Yu, Yanhe Ma
- P168 A Novel Thermostable Protein-tag: Optimization of the *Sulfolobus solfataricus* DNA-alkyl-transferase by Protein Engineering**
Antonella Vettone, Castrese Morrone, Aurelio Hidalgo, José C. Berenguer, Giovanni del Monaco, Mosè Rossi, Maria Ciaramella, Giuseppe Perugino
- P169 A Second Dye-linked D-Lactate Dehydrogenase is Present in Thermoacidophilic Archaeon, *Sulfolobus tokodaii***
Takenori Satomura, Norio Kurosawa, Haruhiko Sakuraba, Toshihisa Ohshima, Shin-ichiro Suye
- P170 Cholesterol Oxidase from *Rhodococcus erythropolis* PR4 Isolated from the Deep Sea Sediment**
Noriyuki Doukyu
- P171 Biodegradation of Crude Oil Hydrocarbons by Halophilic Fungi *Engyodontium album***
Kian Jenab, Hamid Moghimi
- P172 Screening of Haloarchaea from Food Grade Salts Available in Japan and Purification, Characterization of Halophilic β -Agarase from *Halococcus agarilyticus* 197A**
Hiroaki Minegishi, Yasuhiro Shimane, Akinobu Echigo, Masahiro Kamekura, Takashi Itoh, Moriya Ohkuma, Ken Takai, Ron Usami

- P173 Construction of a Novel Expression System of Toxic Protease from a Hyperthermophilic Archaeon *Thermococcus kodakarensis* KOD1**
Daiki Maegawa, Kohei Adachi, Takeshi Omasa, Yuichi Koga
- P174 Hyper-Thermophilic Subtilisin-like Proteases from *Thermococcus kodakarensis* and their Application**
Yuichi Koga, Ryo Uehara, Kazufumi Takano
- P175 Development of a Novel Apparatus for Protein Trapping Using Thermostable Chaperonin**
Le Gao, Ryota Hidese, Shinsuke Fujiwara
- P176 Reconstitution and Characterization of Novel Rieske Oxygenase System from Thermophiles**
Joydeep Chakraborty, Chiho Suzuki-Minakuchi, Kazunori Okada, Hideaki Nojiri
- P177 Unique Cofactor Binding Mode of Homoserine Dehydrogenase from Hyperthermophilic Archaeon *Pyrococcus horikoshii***
Junji Hayashi, Toshihisa Ohshima, Haruhiko Sakuraba
- P178 Lethal Effect of Direct Electric Current on Moderately Halophilic *Bacillus* Isolates obtained from Salted Sheep Skins**
Yasar Birbir, Pinar Caglayan, Meral Birbir, Cristina Sánchez-Porro, Antonio Ventosa
- P179 Mechanisms of Structural Adaptation of Proteins from Haloalkaliphilic Bacteria of the Genus *Thioalkalivibrio***
Tamara V. Tikhonova, Anna Popinako, Eugene Osipov, Anastasia Lilina, Dimitry Sorokin, Vladimir Popov
- P180 Minimal Inhibitory Concentration of an Antimicrobial Agent Containing (benzothiazol-2-ylthio)methyl thiocyanate on Moderately Halophilic Isolates from Salted Skins**
Pinar Caglayan, Meral Birbir, Cristina Sánchez-Porro, Antonio Ventosa
- P181 Maturation Mechanism of a Thermophilic Subtilase and Improving the Thermostability and Activity of This Enzyme by Incorporating Structural Elements of its Psychrophilic Counterpart**
Bing Tang, Xiao-Feng Tang, Hui Zhu, Bi-Lin Xu, Yi-Ran Yang, Xiaoliang Liang
- P182 Thermostable Branching Enzyme from *Caldicellulosiruptor bescii*: Characterization and Application for Starch Modification**
Minjeong Park, Suzy Suh, Sujin Kim, Naeun Yoon, Jaeho Cha
- P183 Characterization of Industrially Important Pectinase-producing Alkaliphilic Bacteria Isolated from Lake Bogoria, a Kenyan Soda Lake**
Kevin R. Oluoch, Patrick W. Okanya, Rajni Hatti-Kaul, Bo Mattiasson, Francis J. Mulaa
- P184 Construction of a Co-assembled Protein Fiber Composed of the Protein derived from *Sulfolobus tokodaii* and the Artificial Thermostable Protein**
Sota Yagi, Satoshi Akanuma, Tatsuya Uchida, Akihiko Yamagishi
- P185 Structure Analyses of a Novel Type of Chitinase from Archaea**
Yuichi Nishitani, Ayumi Horiuchi, Mehwish Aslam, Tamotsu Kanai, Haruyuki Atomi, Kunio Miki
- P186 Withdrawn**
- P187 Cell-free Biocatalytic Modules for Biological Waste Conversion**
Kerstin Petroll, Dominik Kopp, Andrew Care, Peter L. Bergquist, Anwar Sunna
- P188 Structure Analysis of a Hydrogenase Maturation Protease from the Hyperthermophilic Archaeon *Thermococcus kodakarensis***
Sunghark Kwon, Yuichi Nishitani, Satoshi Watanabe, Yoshinori Hirao, Tadayuki Imanaka, Tamotsu Kanai, Haruyuki Atomi, Kunio Miki
- P189 Exploring the Construction Strategy of Oligomeric Proteins from the Three Dimensional Structure of Molybdenum Enzyme in the Primitive Glycolytic Pathway**
Takayoshi Wakagi, Hiroshi Nishimasu, Masayuki Miyake, Shinya Fushinobu

- P190 Novel Thermophilic Hemicellulases for Second Generation Biorefineries**
Beatrice Cobucci-Ponzano, Roberta Iacono, Andrea Strazzulli, Giuseppe Masturzo, Rosa Giglio, Mosè Rossi, Marco Moracci
- P191 Engineering of Non-natural Sugar Enzymes by a Conserved Sequence-based Recombination**
Sun-Mi Shin, Yong-Jik Lee, Sang-Jae Lee, Dong-Woo Lee
- P192 Molecular Design of Hyperthermostable Proteinaceous Cushion for Sensitive Biomolecular Interaction Detection System**
Hiroyuki Imanaka, Koki Date, Yuuki Inaba, Naoyuki Ishida, Koreyoshi Imamura
- P193 Crystal Structure and Reaction Mechanism of a Novel Free Serine Kinase from *Thermococcus kodakarensis***
Ryuhei Nagata, Masahiro Fujihashi, Yuki Makino, Hiroki Kawamura, Takaaki Sato, Haruyuki Atomi, Kunio Miki
- P194 Engineering of a Hyperthermophilic Archaeon, *Thermococcus kodakarensis*, that can Grow on Chitin**
Mehwish Aslam, Ayumi Horiuchi, Naoya Takahashi, Jan R. Simons, Savyasachee Jha, Tadayuki Imanaka, Tamotsu Kanai, Haruyuki Atomi
- P195 Novel Acidophilic, Metal-tolerant Sulfate-reducing Bacteria can Produce Nano-size Transition Metal Sulfides**
Olga V. Karnachuk, Olga Ikkert, Dmitry Antsiferov, Tatyana Fyodorova, Inna Panova, Anastasiia Kovalyova, Marina Bushuieva, Aleksandra Zakharova, Nikolay V. Ravin, Olli H. Tuovinen
- P196 Overexpression of the Lipase from Thermophilic Bacterium *Geobacillus thermocatenulatus* on the Cell Surface of Yeast *Pichia pastoris***
Ryosuke Yamada, Yusuke Kimoto, Hiroyasu Ogino
- P197 Characterization of GH Family 18 Chitinases from Alkaliphilic Actinomycete *Nocardioopsis* sp. Strain F96**
Kinuka Toyama, Daiki Misu, Rei Kajitani, Kimiko Endo, Tetsuya Fukazawa, Rie Yatsunami, Takehiko Ito, Toshiaki Fukui, Satoshi Nakamura
- P198 Sulfur Trafficking Assembly Proteins Play an Important Role in Keratin Degradation**
Hyeon-Su Jin, Immanuel Dhanasingh, Yong-Jik Lee, Sun-Mi Shin, Sung-Haeng Lee, Dong-Woo Lee
- P199 Characterization of Extracellular Mannanase from Japanese Solar Salts**
Shigeaki Enomoto, Hiroaki Minegishi, Akinobu Echigo, Yasuhiro Shimane, Masahiro Kamekura, Yasuhiko Yoshida, Ron Usami
- P200 Improvement of Organic Solvent-stability of Lipase Complexed with Sucrose**
Shota Kajiwara, Ryosuke Yamada, Hiroyasu Ogino
- P201 Improving the Low-Temperature Activity of a Thermophilic Enzyme without Loss of its Thermostability by Mutanome Analysis**
Mizumo Bessho, Satoshi Akanuma, Hikono Kimura, Akihiko Yamagishi
- P202 Production of Phytoene in *Thermococcus kodakarensis* through Genetic and Protein Engineering**
Savyasachee Jha, Takaaki Sato, Tsubasa Fuke, Uwe Bornscheuer, Haruyuki Atomi
- P203 Purification and Characterization of Two Novel Xylanases From the Halotolerant *Bacillus* sp. Asc6BA**
Francisca Contreras, Patricio Muñoz, Jenny Blamey
- P204 Distribution and Characteristics of Extracellular Alkaline Proteases of Haloalkaliphilic Bacteria from the Saline Habitats of Coastal Gujarat, India**
Satya P. Singh

- P205 Diversity of Bacterial Species that Utilize Organo Phosphate Pesticides as Sole Source of Carbon**
Ramesh K. Kothari, Piyushkumar M. Lunagaria, Jalpa K. Rank, Vishal V. Kothari, Charmy R. Kothari
- P206 Statistical Optimization and Process Validation of the Degradation of Textile Dye by *Lysinibacillus fusiformis* JTP23**
Girish C. Bhimani, Himanshu D. Bhimani, Ramesh K. Kothari, Satya P. Singh
- P207 THERMOGENE - Novel Thermostable Enzymes for Industrial Biotechnology**
Jennifer Littlechild, Misha Isupov, Paul James, Christopher Sayer, Vladimir Popov, Nikolay Ravin, Elizaveta Bonch-Osmolovskaya, Germes Chilov, Peter Schoenheit, Marcel Schmidt, J.-M. Sutter, Nils Birkeland, Antonio Garcia-Moyana
- P208 Hydrogen Bond involving Tyrosine 182 Plays an Important Role in Stabilizing the Active Site of Hyperthermophilic Esterase EstE1**
Sei-Heon Jang, Ngoc Truongvan, ChangWoo Lee
- P209 Increased Pressure Tolerance of a Marine Bacterium when Cultivated Under High-Pressure Conditions without Subsampling Decompression**
Anais Cario, Karyn L. Rogers, Isabelle Daniel
- P210 Introducing the PUSH50: A New Instrument to Extend the Microbial Exploration within the Deep-Sea Community**
Karyn L. Rogers, Anais Cario, Hervé Cardon, Isabelle Daniel
- P211 Expression and Identification of a Thermostable Type-II Restriction Endonuclease Fisl from Thermophilic Bacterium *Fervidobacterium islandicum* AW-1**
Kyoung Hee Park, Min Gyeong Woo, Do Kun Lee, Na Kyeong Park, Dong-Woo Lee, Yong-Jik Lee, Jae-Ho Shin, Gaewon Nam, Sang-Jae Lee, Han-Seung Lee
- P212 Characterization of a Thermostable L-Fucose Isomerase from *Fervidobacterium islandicum* AW-1**
MinGyeong Woo, DoKyung Oh, Ha Young Baek, Kyong Seo Lee, Dong-Woo Lee, Yong-Jik Lee, Seong-Bo Kim, Gaewon Nam, Han-Seung Lee, Sang-jae Lee
- P213 Mesotoga: A Phylogenetic and Metabolic Enigma within the Order Thermotogales**
Wajdi Ben Hania, Khaled Fadhlou, Anne Postec, Marie-Laure Fardeau, Gaël Erauso, Alain Dolla, Céline Brochier-Armanet, Bernard Ollivier
- P214 Relationship between Carotenoid Pigment and Resistance to Ultra-Violet Radiation in Newly Isolated *Deinococcus* sp. strain WMA-LM9**
Wasim Sajad, Manzoor Ahmed, Salman Khan, Sunniya Ilyas, Fariha Hasan, Aamer A. Shah
- P215 Global Biogeography of Desert Cyanobacteria**
Stephen B. Pointing
- P216 Structural Changes in Plasmid DNA Induced by Ectoine**
Susann Meyer, Maria-Astrid Schröter, Özlem Özcan, Marc Benjamin Hahn, Tihomir Solomun, Heinz Sturm, Hans Jörg Kunte
- P217 Biodegradation of Lignin by Alkaliphilic and Halotolerant Bacteria- *Bacillus ligniniphilus* L1**
Daochen Zhu, Changxiao Xie, Bin Yang, Jianzhong Sun, Weijun Qian
- P218 Iron-Reducing Bacteria from Cold Spring Buksyken (Northern Pribaikalie, Russia)**
Ekaterina Ts. Dambinova, Anastasiya G. Zakharyuk, Tuyana G. Banzaraktsaeva, Victoria A. Shcherbakova
- P219 Biodiversity of Thermophile *Bacillus* spp. Protease Producers from West Sumatra Hot Spring, Indonesia**
Anthoni Agustien, Akmal Djamaan, Yetria Rilda, Arzita, Yunofrizal
- P220 Antimicrobial Activity of Cold Adapted Bacteria Isolated from Tirich Mir Glacier, Pakistan, and Resistance of These Bacteria to Metal Ions**
Muhammad Rafiq, Alexandre M. Anesio, Muhammad Hayat, Sahib Zada, Wasim Sajjad, Aamer Ali Shah, Fariha Hasan

- P221 Exploitation of Halophilic Archaea for Production of Polyhydroxyalkanoates from Agro-Industrial Wastes**
Bhakti B. Salgaonkar, Judith M. Bragança
- P222 Protease Production from an Extremely Halophilic Archaea, *Halococcus* sp. Strain E4**
Deepthi Das, Judith M. Bragança
- P223 Antimicrobial Metabolites from Haloalkaliphilic Actinomycetes Isolated from the Gulf of Khambhat, Western India**
Jignasha T. Thumar
- P224 What regulated abundance of the dominant species in the epibiotic community on the deep-sea crustaceans?**
Kaori Motoki, Tomo-o Watsuji, Asami Yamamoto, Emi Hada, Yukiko Nagai, Takashi Toyofuku, Kenji Ueda, Yoshihiro Takaki, Ken Takai,
-