

Invited Lecture

November 17 (Thu) Conference Room AB
16:30~17:00

Chairperson: Y. Miyake (Forensic Sci. Lab., Hyogo Pref. Police HQ.)

Recent Students' Interest in Crime — A Study in a Local Private University —

K. Matsuno (Kansai Univ. of International Studies)

Symposia

November 17 (Thu) Sakura-Higashi
13:00~14:30

Facial Image Identification — Scientific Techniques and Their Future Prospects —

Organizer: M. Yoshino (National Research Inst. of Police Sci.)

1. The History of Facial Image Identification
M. Yoshino (National Research Inst. of Police Sci.)
2. The Present Status of Facial Image Identification in the Police of Japan
S. Miyasaka (National Research Inst. of Police Sci.)
3. Forensic Anthropological Identification Method for the Facial Images
M. Hashimoto (Dep. of Forensic Anthropology, Tokyo Dental College)
4. Automated Face Identification Techniques from a Standpoint of
Suppressing Factors Degrading their Accuracy
S. Sakamoto (Media and Information Research Lab., NEC Corp.)

November 17 (Thu) Main Hall
15:00~17:55

Frontiers of Structural Elucidation by Mass Spectrometry: Ionization, Mass Spectrometry and Ultramicroanalyses

Organizer: H. Yamaoka (Graduate School of Sci., Osaka Pref. Univ.)

1. Gas Phase Ion Chemistry Using a Four Sector Tandem Mass Spectrometer
H. Yamaoka (Graduate School of Sci., Osaka Pref. Univ.)
2. Identification and Structural Characterization of Novel Marine Natural
Toxins
H. Naoki (Okinawa Pref. Collaboration of Regional Entities for the
Advancement of Technological Excellence, JST)
3. Establishment of Fingerprinting MS Measurement Based on MS Science is
Basic for Forensic Science
Z. Tozuka (JCL Bioassay Corporation)
4. How May MALDI-MS Help You?
— Contribution and Possibility to Forensic Science —
K. Tanaka (Mass Spectrometry Research Laboratory, Shimadzu Corp.)

General Presentations

Forensic Biology (A)

November 17 (Thu) Sakura-Higashi

9:00~9:48

Chairperson: K. Sakurada (National research Inst. of Police Sci.)

- A-1 Analysis of 17-ketosteroids using stir bar sorptive extraction/GC-MS
○S. Akiba, M. Mori, E. Munakata and H. Nakajima (Sci. Investigation Lab., Aomori Pref. Police HQ.)
- A-2 Direct extractive acylation of urinary 17-keto-steroids for GC-MS analysis
○T. Miyata, K. Takekawa and T. Ohmori (Forensic Sci. Lab., Yamanashi Pref. Police HQ.)
- A-3 Analysis of steroid in urine by column switching LC-MS
○H. Sato, T. Sato and T. Kato (Sci. Investigation Lab., Fukushima Pref. Police HQ.)
- A-4 Identification of human sweat stain using capillary electrophoresis
○R. Suzuki, T. Takayama, N. Takada, K. Suenami and Y. Watanabe (Criminal Investigation Lab., Gifu Pref. Police HQ.)

9:48~10:24

Chairperson: T. Kobayashi (Forensic Sci. Lab., Osaka Pref. Police HQ.)

- A-5 Application of biomolecular interaction analytical device to ABO blood type test
○S. Hirata^{*1}, T. Ouchi^{*1}, M. Tsuchiya^{*1}, H. Kurokawa^{*2} and T. Shimizu^{*2} (Forensic Sci. Lab., Miyagi Pref. Police HQ.^{*1}, Inst. Multi. Res. Adv. Mat., Tohoku Univ.^{*2})
- A-6 Application of the Periodic acid / Schiff reaction (PAS) using SEMpore for glycogen particles in vaginal cells
○T. Nakagawa, M. Doi, H. Miyake and T. Okiura (Forensic Sci. Lab., Ehime Pref. Police HQ.)
- A-7 Identification of vaginal fluid by detecting D-lactic acid
○N. Koizumi and T. Koizumi (Forensic Sci. Lab., Yamaguchi Pref. Police HQ.)

10:34~11:10

Chairperson: M. Nakazato (Forensic Sci. Lab., Okinawa Pref. Police HQ.)

- A-8 ABO blood grouping of microscopic bloodstains by labeled streptavidin biotin (LSAB) technique
○H. Inoue, T. Ito and Y. Akiba (Forensic Sci. Lab., Chiba Pref. Police HQ.)
- A-9 Postmortem changes of blood and body fluid components in medicolegal autopsy
○H. Maeda, Bao-Li Zhu, T. Ishikawa, T. Michiue, D. Li and D. Zhao (Dept. of Legal Medicine, Osaka City Univ. Medical School)
- A-10 Preparation of latex-reagents for human saliva in order to simplify a preliminary test
○H. Nakanishi^{*1}, T. Ohmori^{*1}, T. Akutsu^{*2} and K. Sakurada^{*2} (Forensic Sci. Lab., Yamanashi Pref. Police HQ.^{*1}, National Research Inst. of Police Sci.^{*2})

15:00~15:48

Chairperson: T. Komuro (Nihon Univ. School of Dentistry)

- A-11 The identification of Tsunami disaster victims — At Phuket in Thailand (first report) —
○M. Hashimoto^{*1}, H. Saka^{*1}, Y. Ide^{*1}, N. Kasahara^{*2}, H. Takada^{*3}, H. Someda^{*3}, K. Fujii^{*4}, R. Hatayama^{*5}, O. Takeya^{*5}, Y. Murata^{*5} and Y. Yokoyama^{*5} (Tokyo Dental College^{*1}, Chiba Medical and Welfare College^{*2}, Japan Self Defense Force^{*3}, National Research Inst. of Police Sci.^{*4}, Metropolitan Police Dept.^{*5})
- A-12 The identification of Tsunami disaster victims —At Phuket in Thailand (second report)—
○H. Saka^{*1}, Y. Ide^{*1}, M. Hashimoto^{*1}, N. Kasahara^{*2}, H. Takada^{*3}, H. Someda^{*3}, K. Fujii^{*4}, R. Hatayama^{*5}, O. Takeya^{*5}, Y. Murata^{*5} and Y. Yokoyama^{*5} (Tokyo Dental College^{*1}, Chiba Medical and Welfare College^{*2}, Japan Self Defense Force^{*3}, National Research Inst. of Police Sci.^{*4}, Metropolitan Police Dept.^{*5})
- A-13 Facial soft tissue thickness in Japanese skeletal I children
○H. Utsuno^{*1}, T. Kageyama^{*2}, H. Nakamura^{*3}, T. Deguchi^{*2}, H. Miyazawa^{*3}, M.

Yoshino*⁴ and K. Inoue*¹ (1st Dep. of Oral Anatomy, Matsumoto Dental Univ.*¹, Inst. of dentistry, Matsumoto Dental Univ.*², Pediatric dentistry, Matsumoto Dental Univ.*³, National Research Inst. of Police Sci.*⁴)

A-14 The usefulness to classify auricular components by morphological types for facial photographic identification

○H. Moriyoshi, M. Miyoshi, D. Hino, H. Nakayama, T. Morikawa, S. Nakaki and K. Itohara (Forensic Sci. Lab. Hiroshima Pref. Police HQ.)

15:58~16:46 *Chairperson: A. Inamura (Forensic Sci. Lab., Shizuoka Pref. Police HQ.)*

A-15 The computerized correction for optical distortion of facial images in face-to-face superimposition (III)

○H. Biwasaka*¹, T. Tokuta *¹, Y Sasaki*¹, T. Takagi*², H Tanijiri*³, S Miyasaka*³ and Y Aoki*⁴ (Sci. Crime Detection Lab., Iwate Pref. Police HQ.*¹, Medic Engineering Co.*², National Research Inst. of Police Sci.*³, Dep. of Legal Medicine, Iwate Medical Univ.*⁴)

A-16 A proposal of face identification method and 3-dimensional image making by comparison of facial characteristics in the photographs taken under the different conditions

○N. Takarayama*¹, M. Hashimoto*² and K. Satou*¹ (Kure Div., Babcock-Hitachi K.K.*¹, Dep. of Forensic Anthropology, Tokyo Dental College*²)

A-17 A Comparative study of sperm morphology in 110 species including human

○T. Sugano*¹ and H. Kusunoki*² (Forensic Sci. Lab., Osaka Pref. Police HQ.*¹, Faculty of Agriculture, Kobe Univ.*²)

A-18 Immunohistological study of the cocaine treated rat brain

○S. Kubota, H. Matsuda, Y. Iwata, H. Inoue and H. Sato (National Research Inst. of Police Sci.)

November 18 (Fri) Sakura-Higashi

9:00~10:00 *Chairperson: A. Harada (Forensic Sci. Lab., Yamagata Pref. Police HQ.)*

A-19 The study of multiple preliminary test for stain (blood and semen, saliva, urine) by transcription

○M. Yamaji (Forensic Sci. Lab., Kagawa Pref. Police HQ.)

A-20 A study of anti-PSA monoclonal antibody using EIA technique

○M. Abe and T. Ito (Forensic Sci. Lab., Chiba Pref. Police HQ.)

A-21 Importance of identifying animal hairs, dog's

○Y. Shimizu*¹, H. Sato*¹, T. Kato*¹, H. Kimura*² and M. Tuge*³ (Sci. Investigation Lab., Fukusima Pref. Police HQ.*¹, Maebashi Inst. of Animal Sci., Livestock Improvement Association of Japan Inc.*², Tuge Small Animal Clinic*³)

A-22 Forensic discrimination of hair by online automatic visual inspection system

○T. Ito*¹, T. Abe*², H. Tsuruoka*¹, M. Abe*¹ and Y. Yamada*² (Forensic Sci. Lab., Chiba Pref. Police HQ.*¹, Technos Co.*²)

A-23 Application of labeled streptavidin-biotin technique for ABO blood typing from non-medullated hair samples

○T. Akutsu, H. Ikegaya and K. Sakurada (National Research Inst. of Police Sci.)

10:10~11:10 *Chairperson: Y. Kurasawa (Forensic Sci. Lab. Nagano Pref. Police HQ.)*

A-24 Examination of effective DNA extraction method from teeth

○E. Nishi*¹, Y. Yamada*¹, T. Ono*¹, Y. Tomisaka*¹ and T. Kimura*² (Forensic Sci. Lab. Oita Pref. Police HQ.*¹, Kimura Dental Clinic*²)

A-25 Identification of the driver from DNA typing

○A. Ishiko*^{1, 2}, H. Yamaguchi*¹, Y. Hayashiba*¹, A. Tsuji*², H. Inoue*² and N. Ikeda*² (Forensic Sci. Lab., Fukuoka Pref. Police HQ.*¹, Dep. of Forensic Pathology and Sci., Graduate School of Medical Sci., Kyushu Univ.*²)

A-26 Identification and DNA typing of urine stains

○T. Nakazono^{*1, 2}, Y. Hayashiba^{*1}, S. Kashimura^{*2}, K. Hara^{*2}, A. Miyoshi^{*2} and T. Hisatomi^{*1} (Forensic Sci. Lab., Fukuoka Pref. Police HQ.^{*1}, Dep. of Forensic Medicine Fukuoka Univ. School of Medicine^{*2})

A-27 Influence of vegetable oil in DNA typing

○Y. Tomisaka, T. Ono, Y. Yamada and E. Nishi (Forensic Sci. Lab., Oita Pref. Police HQ.)

A-28 DNA extraction from sperm found in mixed stains of seminal fluid and vaginal secretion using DNase I

○T. Uchiyama^{*1}, I. Maeda^{*1}, R. Hisazumi^{*1}, M. Nakata^{*1}, R. Ohno^{*1}, T. Hasegawa^{*1}, H. Yoshimura^{*1}, K. Shimizu^{*1} and R. Akashi^{*2} (Forensic Sci. Lab., Miyazaki Pref. Police HQ.^{*1}, Faculty of Agriculture, Miyazaki Univ.^{*2})

11:20~12:08 *Chairperson: K. Kawasaki (Forensic Sci. Lab. Wakayama Pref. Police HQ.)*

A-29 DNA amplification of un-purified samples

○A. Kitagawa^{*1}, S. Masui^{*1} and K. Kasai^{*2} (Forensic Sci. Lab., Shiga Pref. Police HQ.^{*1}, National Research Inst. of Police Sci.^{*2})

A-30 Discrimination of higher plants using the DNA sequence analysis

○H. Yamauchi, M. Harada and R. Tajima (Research Inst. for Quality Assurance, Suntory Ltd.)

A-31 Identification of plant species using molecular biological technique – Evaluation of plastid subtype identifying sequence –

○M. Kai and H. Fukushima (Forensic Sci. Lab., Hokkaido Police HQ.)

A-32 Allele Frequency Distributions of Y-STRs in Miyazaki Population

○K. Shimizu^{*1}, T. Hasegawa^{*2}, R. Ohno^{*1}, T. Uchiyama^{*1}, M. Nakata^{*1}, R. Hisazumi^{*1}, I. Maeda^{*1}, H. Yoshimura^{*1}, K. Sekiguchi^{*3}, K. Imaizumi^{*3} and K. Kasai^{*3} (Forensic Sci. Lab., Miyazaki Pref. Police HQ.^{*1}, Forensic Sci. Lab., Kagoshima Pref. Police HQ.^{*2}, National Research Inst. of Police Sci.^{*3})

Forensic Toxicology (B, BP)

Oral Presentations

November 18 (Fri) Sakura-Nishi

9:36~10:36

Chairperson: H. Ohta (National Research Inst. of Police Sci.)

B-1 Species discrimination of poppy plants by chloroplast DNA analysis

○T. Matsushita^{*1}, S. Muratsu^{*1}, Y. Nishiwaki^{*1}, M. Nakagawa^{*2}, K. Suita^{*2}, K. Kanamaru^{*2}, M. Takatsu^{*1}, M. Moriyasu^{*3} and H. Yamagata^{*2} (Forensic Sci. Lab., Hyogo Pref. Police HQ.^{*1}, Faculty of Agriculture, Kobe Univ.^{*2}, Kobe Pharmaceutical Univ.^{*3})

B-2 Metabolism-like reactions of drugs in metal complexes

○S. Ito^{*1}, T. Minagawa^{*1} and Y. Nishida^{*2} (Forensic Sci. Lab., Yamagata Pref. Police HQ.^{*1}, Dep. of Chemistry, Faculty of Sci., Yamagata Univ.^{*2})

B-3 Utility of ion trap LC/MSⁿ for screening of various drugs and these metabolites

○K. Kanda^{*1}, T. Yoshikawa^{*1}, M. Narihara^{*2} and K. Nishida^{*2} (Forensic Sci. Lab., Mie Pref. Police HQ.^{*1}, Forensic Sci. Lab., Ohita Pref. Police HQ.^{*2})

B-4 Separation and quantitation of etizolam, triazolam and their metabolites in urine of the ambulatory psychiatry patient by LC/TOF-MS

○M. Takino^{*1}, M. Hayashida^{*2}, Y. Ohno^{*2}, E. Kurihara^{*3}, K. Hiraiwa^{*3} and K. Terada^{*4} (Yokogawa Analytical Systems Inc.^{*1}, Dep. of Legal Medicine, Nippon Medical School^{*2}, Dep. of Legal Medicine, Fukuoka Univ. School of Medicine^{*3}, Dep. of Legal Medicine, School of Medicine, Toho Univ.^{*4})

B-5 Evaluation of performance of on-site chemical warfare agent detection equipment 2

○Y. Seto, H. Maruko, H. Sekiguchi, M. Kanamori-Kataoka, K. Tsuge and I. Ohsawa (National Research Inst. of Police Sci.)

(10:40~12:00 Poster Presentations BP-1~BP-17 and CP-1~CP-16, Gallery)

13:00~14:00 *Chairperson: M. Kumihashi (Forensic Sci. Lab., Kagawa Pref. Police HQ.)*

- B-6 Determination of metabolites of thinner in urine using capillary electrophoresis
○H. Funatsu, A. Watanabe and T. Ikeda (Forensic Sci. Lab., Hokkaido Kitami Area Police HQ.)
- B-7 Analysis of glufosinate and glyphosate by capillary electrophoresis
○Y. Narita (Forensic Sci. Lab., Hokkaido Police HQ.)
- B-8 Derivatization of glyphosate and glufosinate with trifluoroacetic anhydride and trifluoroethanol
○A. Kobayashi^{*1}, K. Kobayashi^{*1, 2}, T. Okumura^{*1} and H. Fukushima^{*2} (Criminal Investigation Lab., Nagano Pref. Police HQ.^{*1}, Dep. of Legal Medicine, Shinshu Univ. School of Medicine)
- B-9 Rapid determination of phosphorus-containing amino acid herbicides by LC-ESI-MS using volatile ion-pair reagent
○H. Ohta, Y. Kazui and O. Ohtsuru (National Research Inst. of Police Sci.)
- B-10 Forensic analysis of aminoglycoside antibiotics
○M. Iwamoto (Forensic Sci. Lab., Miyazaki Pref. Police HQ.)

14:05~14:53 *Chairperson: Y. Adachi (Forensic Sci. Lab., Hokkaido Police HQ.)*

- B-11 Analysis for steroidal non-depolarizing neuromuscular blocking agents
○K. Usui^{*1, 2}, N. Tachiiri^{*1}, T. Hishinuma^{*2} and J. Goto^{*2} (Forensic Sci. Lab., Miyagi Pref. Police HQ.^{*1}, Graduate School of Pharmaceutical Sci., Tohoku Univ.^{*2})
- B-12 Simultaneous determination of non-steroidal anti-inflammatory drugs in human plasma by capillary liquid chromatography-mass spectrometry with on-line pre-column sample extraction and enrichment
○K. Suenami^{*1, 2}, Y. Sasajima^{*1}, K. Sato^{*1}, Y. Takekoshi^{*1}, S. Kanno^{*1}, L. L. Wah^{*2} and T. Takeuchi^{*2} (Criminal Investigation Lab., Gifu Pref. Police HQ.^{*1}, Faculty of Engineering, Gifu Univ.^{*2})
- B-13 Analysis of Tadalafil
○T. Sakai^{*1}, K. Ebina^{*1}, N. Tomioka^{*2} and M. Okada^{*1} (Forensic Sci. Lab., Hokkaido Asahikawa Area Police HQ.^{*1}, Forensic Sci. Lab., Hokkaido Police HQ.^{*2})
- B-14 A higher sensitivity analytical method for benzodiazepines and their metabolites using the NCI-GC/MS
○H. Miyagawa^{*1}, Y. Sakamoto^{*1}, K. Nakagawa^{*1}, H. Nishioka^{*2}, M. Nishikawa^{*2} and H. Tsuchihashi^{*2} (Shimadzu Corp.^{*1}, Forensic Sci. Lab., Osaka Pref. Police HQ.^{*2})

15:10~15:58 *Chairperson: M. Hasegawa (Forensic Sci. Lab., Shimane Pref. Police HQ.)*

- B-15 Liquid-phase microextraction of amphetamines in urine using a glass microchip
○H. Miyaguchi^{*1}, Y. Kikutani^{*2}, M. Tokeshi^{*2}, A. Hibara^{*2, 3}, H. Inoue^{*1} and T. Kitamori^{*2, 3}, (National Research Inst. of Police Sci.^{*1}, Kanagawa Academy of Sci. and Tech. (KAST)^{*2}, School of Engineering, Univ. of Tokyo^{*3})
- B-16 Enantioselective synthesis of *l*-methamphetamine
○S. Hazama^{*1}, S. Ichikawa^{*2} and M. Hata^{*1} (Forensic Sci. Lab., Hokkaido Kushiro Area Police HQ.^{*1}, Graduate School of Pharmaceutical Sci., Hokkaido Univ.^{*2})
- B-17 Studies on acidic hydrolysis of sulfate and glucuronide conjugates of *p*-hydroxymethamphetamine and *p*-hydroxyamphetamine
○M. Sato, A. Yamashita, M. Kikuchi, T. Ito and M. Honda (Forensic Sci. Lab., Niigata Pref. Police HQ.)
- B-18 Analysis of hallucinogenic components in *Amanita muscaria* (2) High-performance liquid chromatography with fluorescence derivatization

○H. Mohri, K. Wakigawa, A. Gohda and S. Fukushima (Forensic Sci. Lab., Fukuoka Pref. Police HQ.)

16:00~16:48

Chairperson: Y. Iwata (National Research Inst. of Police Sci.)

B-19 Analysis of 5-methoxy-*N, N*-diisopropyltryptamine and its analogy

○H. Akai and K. Kawaguchi (Sci. Criminal Investigation Lab., Kanagawa Pref. Police HQ.)

B-20 Analysis of the hallucinogen “methylone” and the identification of its metabolites in urine

○H. T. Kamata, N. Shima, M. Nishikawa, M. Katagi and H. Tsuchihashi (Forensic Sci. Lab. Osaka Pref. Police HQ.)

B-21 Analysis of *N, N*-dimethyl MDA

○Y. Suzuki and H. Ishii (Forensic Sci. Lab., Chiba Pref. Police HQ.)

B-22 Determination of twelve methoxyamphetamines

○K. Zaitso, H. T. Kamata, T. Kamata, M. Katagi, A. Miki and H. Tsuchihashi (Forensic Sci. Lab., Osaka Pref. Police HQ.)

Poster Presentations

November 18 (Fri) Gallery

10:40~12:00

BP-1 Determination of human liver P450 molecular species responsible for the (+)- and (-)-menthol

○M. Miyazawa and K. Nakanishi (Dep. of Applied Chemistry, Faculty of Sci. and Engineering, Kinki Univ.)

BP-2 Rapid and simple assay of hippuric acid in urine using color reaction

○M. Yoshida^{*1}, A. Akane^{*1} and T. Mitani^{*1,2} (Dept. of Legal Medicine, Kansai Medical Univ. ^{*1}, Forensic Sci. Lab., Osaka Pref. Police HQ. ^{*2})

BP-3 Effects of the various preparation procedures of Dragendorff reagent on sensitivity for thin layer chromatography

○K. Kuwayama^{*1}, K. Tsujikawa^{*1}, H. Miyaguchi^{*1}, T. Kanamori^{*1}, Y. Iwata^{*1}, H. Inoue^{*1}, T. Kishi^{*1} and N. Tsunoda^{*2} (National Research Inst. of Police Sci. ^{*1}, Tokyo Univ. of Sci. ^{*2})

BP-4 Analysis of chitosan in healthy supplement

○M. Morioka and M. Suzuki (Forensic Sci. Lab., Ehime Pref. Police HQ.)

BP-5 Simultaneous determination of eighteen antidepressant drugs in serum by capillary column gas chromatography with nitrogen-phosphorus detection

○M. Terada^{*1}, T. Shinozuka^{*2}, E. Tanaka^{*3}, K. Honda^{*3} and K. Kurosaki^{*1} (Dep. of Legal Medicine, School of Medicine, Toho Univ. ^{*1}, Dep. of Central Research Lab., Inst. of Integrated Medical Research, School of Medicine, Keio Univ. ^{*2}, Dep. of Legal Medicine, Inst. of Community Medicine, Univ. of Tsukuba ^{*3})

BP-6 Analysis of misoprostol by LC/MS

○H. Ishii (Forensic Sci. Lab., Chiba Pref. Police HQ.)

BP-7 Characteristic of new ODS columns and application to basicity medicine

○H. Yamasaki, S. Itoh and Y. Mitoma (Sci. Instrument Div., Tosoh Corp.)

BP-8 Rapid analysis of soil contaminated Paraquat and Diquat utilizing those oxidation products by HPLC-FLD

M. Honda, ○A. Yamashita, M. Kikuchi, M. Sato and T. Ito (Forensic Sci. Lab., Niigata Pref. Police HQ.)

BP-9 Simultaneous analysis of pyrethroid pesticides by gas chromatography/mass spectrometry

○Y. Iwamuro^{*1}, S. Chinaka^{*1}, N. Takayama^{*1}, H. Ohta^{*2} and O. Ohtsuru^{*2} (Forensic Sci. Lab., Ishikawa Pref. Police HQ. ^{*1}, National Research Inst. of Police Sci. ^{*2})

- BP-10 Analysis of drugs in biological samples with multi-mode HPLC columns
 ○K. Iwata*¹ and K. Oide*² (Speciality Chemicals Dept, Showa Denko K.K.*¹, Shodex Dep., Shoko Co. Ltd.*²)
- BP-11 Immunoassay for 3,4-methylenedioxyamphetamine with a new antibody
 ○S. Watanabe, S. Tanaka, S. Numazawa and T. Yoshida (Pharmaceutical Sci., Shouwa Univ.)
- BP-12 Impurity profiling of methamphetamines using SR-XRD
 ○S. Muratsu, Y. Nishiwaki, S. Fukui, N. Miyamoto and M. Takatsu (Forensic Sci. Lab., Hyogo Pref. Police HQ.)
- BP-13 Proposal of a simple discernment method of illegal drugs using near-infrared diffuse reflectance equipment
 ○C. Jin*¹, A. Miki*² and H. Tsuchihashi*² (Jasco Corp.*¹, Forensic Sci. Lab., Osaka Pref. Police HQ.*²)
- BP-14 A fatal 5-methoxy-*N, N*-diisopropyltryptamine poisoning
 ○E. Tanaka*¹, T. Kamata*², M. Katagi*², H. Tsuchihashi*² and K. Honda*¹ (Dep. of Legal Medicine, Tsukuba Univ.*¹, Forensic Sci. Lab., Osaka Pref. Police HQ.*²)
- BP-15 Analysis of alkaloids in *Papaver orientale* Lindl. (garden poppy) of Papaveraceae
 ○H. Teraishi*¹, J. Tsukioka*², Y. Ohshita*² and K. Gotoh*² (Forensic Sci. Lab., Kyoto Pref. Police HQ.*¹, Garden of Medicinal Plants, Kyoto Pharmaceutical Univ.*²)
- BP-16 Study on extraction of cannabis component for GC-MS analysis
 ○T. Oyama (Forensic Sci. Lab., Saga Pref. Police HQ.)
- BP-17 Recoveries of methamphetamine and amphetamine in urine (2) – Comparison study of adding salts –
 ○T. Sasaki, A. Kuji and O. Hasegawa (Forensic Sci. Lab., Hokkaido Hakodate Area Police HQ.)

Forensic Chemistry (C, CP)

Oral Presentations

November 17 (Thu) Sakura-Nishi

9:00~9:48

Chairperson: K. Saito (Forensic Sci. Lab., Miyagi Pref. Police HQ.)

- C-1 Discrimination of fats and oils (1) – Analyses of saponifiables
 ○S. Kurata and K. Yamaguchi (Criminal Investigation Lab., Metropolitan Police Dep.)
- C-2 Discrimination of fats and oils (2) – Analysis of unsaponifiables
 ○K. Yamaguchi and S. Kurata (Criminal Investigation Lab., Metropolitan Police Dep.)
- C-3 Discussion of the carbon number distribution of kerosene remained at fire scene
 ○Y. Kobayashi*¹, N. Kawamoto*¹, T. Sato*¹, F. Yokoyama*² and O. Sugawa*³ (Analysis Center Co. Ltd.*¹, Japan Specialist in Law Engineering Corp.*², Tokyo Univ. of Sci. Suwa*³)
- C-4 Determination of kerosene in fire residues by gas chromatography-chemical ionization mass spectrometry
 ○N. Kawamoto*¹, Y. Kobayashi*¹, T. Sato*¹, F. Yokoyama*², T. Nohmi*³ and O. Sugawa*⁴ (Analysis Center Co. Ltd.*¹, Japan Specialist in Law Engineering Corp.*², Nohmi Bosai, Ltd.*³, Tokyo Univ. of Sci. Suwa*⁴)

9:48~10:24 *Chairperson: S. Kurata (Criminal Investigation Lab., Metropolitan Police Dep.)*

- C-5 Determination of plant pigments for forensic science
 ○H. Ohashi (Forensic Sci. Lab., Tottori Pref. Police HQ.)
- C-6 Discrimination between refilled ink and genuine ink for inkjet printer
 ○H. Iida, Y. Narita, S. Yoshiyagawa and M. Taniguchi (Forensic Sci. Lab., Hokkaido Police HQ.)
- C-7 Identification of dyes and pigments in ink using MALDI TOF-MS (II)

○T. Tsukame^{*1}, M. Kutsuzawa^{*1}, H. Sekine^{*1} and S. Kawabata^{*2} (Criminal Investigation Lab., Saitama Pref. Police HQ.^{*1}, Shimadzu Corp.^{*2})

10:34~11:22

Chairperson: Y. Higashikawa (National Research Inst. of Police Sci.)

- C-8 Discrimination of PET fibers by polarized raman microspectroscopy
○S. Watanabe^{*1}, N. Miyamoto^{*1}, S. Suzuki^{*2} and R. Hrynchuk^{*3} (Forensic Sci. Lab., Hyogo Pref. Police HQ.^{*1}, National Research Inst. of Police Sci.^{*2}, RCMP Forensic Lab.^{*3})
- C-9 Analysis of various kinds of a single polyester fiber using synchrotron radiation
○N. Miyamoto^{*1}, Y. Nishiwaki^{*1}, S. Watanabe^{*1}, O. Shimoda^{*1}, S. Muratsu^{*1}, M. Takatsu^{*1}, T. Nakanishi^{*1}, N. Oota^{*2}, K. Inoue^{*2} and Y. Terada^{*2} (Forensic Sci. Lab., Hyogo Pref. Police HQ.^{*1}, Japan Synchrotron Radiation Research Inst.^{*2})
- C-10 Identification of copper phthalocyanine in blue automotive paints using LDMS
○T. Mukai^{*1}, M. Kusatani^{*1}, S. Nakai^{*1}, S. Honda^{*1}, M. Sakayanagi^{*2}, S. Kawabata^{*3} and H. Nakazumi^{*4} (Forensic Sci. Lab., Nara Pref. Police HQ.^{*1}, Forensic Sci. Lab., Kanagawa Pref. Police HQ.^{*2}, Shimadzu Corp.^{*3}, Graduate School of Engineering Osaka Pref. Univ.^{*4})
- C-11 Infrared chemical imaging of multi-layered paint chips
○S. Honda^{*1}, T. Mukai^{*1} and S. Shimada^{*2} (Forensic Sci. Lab., Nara Pref. Police HQ. ^{*1}, Varian Technologies Japan Ltd. ^{*2})

13:00~13:48

Chairperson: T. Mukai (Forensic Sci. Lab., Nara Pref. Police HQ.)

- C-12 The effect of heating on the refractive index of glass
○H. Kikkawa^{*1}, Y. Suzuki^{*2}, M. Kasamatsu^{*1}, Y. Higashikawa^{*1} and S. Suzuki^{*1} (National Research Inst. of Police Sci.^{*1}, Forensic Sci. Lab., Shiga Pref. Police HQ. ^{*2})
- C-13 Lower limits of detection, discrimination of small glass fragments by high energy X-ray fluorescence spectrometry at SPring-8 BL37XU
○Y. Nishiwaki and T. Nakanishi (Forensic Sci. Lab., Hyogo Pref. Police HQ.)
- C-14 An attempt of trace soil discrimination using microbial DNA
○M. Narihara^{*1}, E. Nishi^{*1}, K. Nishida^{*1}, K. Tsutsumi^{*1}, S. Ito^{*1}, K. Sakai^{*2} and M. Moriguchi^{*2} (Forensic Sci. Lab., Oita Pref. Police HQ.^{*1}, Engineering, Oita Univ.^{*2})
- C-15 Studies on extraction of information for criminal investigation in very small amount of soil samples – Significant of information from ferromagnetic minerals –
○K. Naganuma^{*1}, T. Arikawa^{*1}, M. Iwamoto^{*1}, T. Udatsu^{*2} and Y. Nagatomo^{*2} (Forensic Sci. Lab., Miyazaki Pref. Police. HQ.^{*1}, Faculty of Agriculture, Miyazaki Univ.^{*2})

13:58~14:34

Chairperson: S. Watanabe (Forensic Sci. Lab., Hyogo Pref. Police HQ.)

- C-16 Profiling of trace elemental impurities in aerated concretes by ICP-MS
○K. Saito^{*1}, N. Tachiiri^{*1}, S. Sasaoka^{*1}, K. Usui^{*1}, S. Ito^{*2}, T. Yoshida^{*3} and K. Miura^{*1} (Forensic Sci. Lab., Miyagi Pref. Police HQ.^{*1}, Forensic Sci. Lab., Yamagata Pref. Police HQ.^{*2}, Forensic Sci. Lab., Ibaraki Pref. Police HQ.^{*3})
- C-17 Forensic discrimination of aluminum foils by synchrotron radiation X-ray fluorescence spectrometry
○M. Kasamatsu^{*1}, Y. Suzuki^{*2}, S. Suzuki^{*1}, N. Miyamoto^{*3}, S. Watanabe^{*3}, O. Shimoda^{*3}, M. Takatsu^{*3} and T. Nakanishi^{*3} (National Research Inst. of Police Sci.^{*1}, Forensic Sci. Lab., Shiga Pref. Police HQ.^{*2}, Forensic Sci. Lab., Hyogo Pref. Police HQ.^{*3})
- C-18 Forensic identification of bullets by lead isotope ratios, trace elements analysis using a quadrupole ICP-MS
○A. Tada, A. Hokura and I. Nakai (Faculty of Sci., Tokyo Univ. of Sci.)

November 18 (Fri) Sakura-Nishi

9:00~9:36

Chairperson: S. Matsumura (Forensic Sci. Lab., Fukui Pref. Police HQ.)

- C-19 Case report: Trace analysis of hexamethylenetriperoxidetiamine (HMTD) from

postexplosion debris using HPLC-ESI-MS

○A. Mochizuki, K. Takekawa, N. Nakazawa and K. Kanai (Forensic Sci. Lab., Yamanashi Pref. Police HQ.)

C-20 A study of trapping the tear gas which was sprayed in atmosphere

○I. Sekimoto and H. Hirano (Criminal Investigation Lab., Tokyo Metropolitan Police Dep.)

C-21 Application of human serum electrolytes (chlorine, sodium and potassium ions) to forensic science (3)

○T. Satoh*¹ and K. Hiraiwa*² (Sci. Investigation Lab., Fukushima Pref. Police HQ.*¹, Dep. of Legal Medicine, Fukushima Medical Univ.*²)

Poster Presentations

November 18 (Fri) Gallery

10:40~12:00

CP-1 Examination on the rapid identification for unlawfully dumped industrial wastes using IAMS

○Y. Shirane*¹, H. Maruyama*², M. Inoue*² and Y. Shiokawa*² (Shirane ACE Ltd*¹, ANELVA Technix Corp.*²)

CP-2 Analysis of fragrance compounds by a NeedleX

○T. Ishiwata and F. Ishizawa (Forensic Sci. Lab., Ibaraki Pref. Police HQ.)

CP-3 Derivatization of polyoxyethylene alkyl ether with 2,4,6-trimethylbenzoic acid and the LC/MS analysis

○H. Ikeda, S. Kage and A. Tsujita (Forensic Sci. Lab., Fukuoka Pref. Police HQ.)

CP-4 FT-IR spectroscopic investigation of tire smears

○K. Otsuki and Y. Saito (Forensic Sci. Lab., Hyogo Pref. Police HQ.)

CP-5 Py-GC/MS and ATR/FT-IR of deteriorated rubber-based pressure sensitive adhesives

○Y. Kumooka (National Research Inst. of Police Sci.)

CP-6 Analysis of packing materials by pyrolysis-gas chromatography-mass spectrometry

○A. Hosaka*¹, S. Takeda*¹, C. Watanabe*¹ and S. Tsuge*^{1, 2} (Frontier Laboratories Ltd.*¹, Aichi Inst. of Tech.*²)

CP-7 Classification of craft tapes using image analysis about polarized light image of polyethylene films

○H. Satoh and M. Hida (Criminal Investigation Lab., Aichi Pref. Police HQ.)

CP-8 Remaining of the extraction solvent in plasticized polyvinyl chloride

○M. Kobayashi and K. Kobayashi (Criminal Investigation Lab., Nagano Pref. Police HQ.)

CP-9 Discrimination of antimicrobial plastic products

○Y. Higashikawa, M. Kasamatsu and S. Suzuki (National Research Inst. of Police Sci.)

CP-10 Application of proteomic strategies to forensic samples

○S. Matsumura*¹, T. Tsukahara*¹, Y. Tanaka*², S. Matsukawa*² and K. Isa*^{2, 3} (Forensic Sci. Lab., Fukui Pref. Police HQ.*¹, Centers for Advanced Research Support, Fukui Univ.*², Faculty of Education and Regional Studies, Fukui Univ.*³)

CP-11 Identification of color pencils

○A. Ishiba, S. Okuyama and M. Hida (Criminal Investigation Lab., Aichi Prefec. Police HQ.)

CP-12 Rapid IR-imaging technique for forensic science

○A. Ohnishi, H. Kimura-Suda and M. Morimoto (PerkinElmer Japan Co. Ltd.)

CP-13 Construction of automobile identification system by analysis of paint chip

○K. Nakao (Forensic Sci. Lab., Tottori Pref. Police HQ.)

CP-14 Quantitative analysis of trace elements in glass bottles by SR-XRF

○T. Yoshida*¹, T. Ishiwata*¹, K. Miyata*¹, F. Ishizawa*¹, S. Suzuki*² and T. Yaita*² (Forensic Sci. Lab., Ibaraki Pref. Police HQ.*¹, Japan Atomic Energy Research Inst.*²)

- CP-15 Studies on extraction of information for criminal investigation in very small amount of soil samples ~Construction of the database for estimation of area in Miyazaki Pref.~
 ○ T. Arikawa*¹, K. Naganuma*¹, M. Iwamoto*¹, T. Udatsu*² and Y. Nagatomo*²
 (Forensic Sci. Lab., Miyazaki Pref. Police HQ.*¹, Faculty of Agriculture, Miyazaki Univ.*²)
- CP-16 Development of a new system for particle morphology analysis
 ○ H. Honma*¹ and T. Tanijiri*² (Forensic Sci. Lab., Yamaguchi Pref. Police HQ.*¹, Medic Engineering Corp.*²)

Forensic Engineering (D)

Firearms and Toolmarks

November 17 (Thu) Sub-Hall

9:00~9:48 *Chairperson: I. Kitamura (Forensic Sci. Lab., Osaka Pref. Police HQ.)*

- D-1 An example of shooting 'capacity' estimation of ornamental guns
 ○ M. Kondo (Criminal Investigation Lab., Aichi Pref. Police HQ.)
- D-2 A gun shot to glass plates put on a floor board
 ○ Y. Itoi and T. Hirose (Criminal Investigation Lab., Saitama Pref. Police HQ.)
- D-3 Case report: investigation of KOROVIN Auto.
 ○ K. Suzuki, H. Fukushima, K. Nishidate and K. Akita (Forensic Sci. Lab., Hokkaido Police HQ.)
- D-4 Application of three-dimensional measuring instruments to estimate the firing angle from a ricochet mark
 ○ T. Fuwa, S. Takeuchi*¹, K. Fukuyama*¹, T. Honda*² and Y. Nakanishi*² (Forensic Sci. Lab., Gifu Pref. Police HQ.*¹, Tokyo Seimitsu Co. Ltd.*²)

9:56~10:44 *Chairperson: R. Furumoto (Forensic Sci. Lab., Ehime Pref. Police HQ.)*

- D-5 Dimensional changes on crashed bullet (2)
 ○ M. Mizumoto (Forensic Sci. Lab., Kumamoto Pref. Police HQ.)
- D-6 A development of the database system using Visual Basic
 ○ T. Kohatsu (Forensic Sci. Lab., Okinawa Pref. Police HQ.)
- D-7 Variation of muzzle velocity of 38 Special cartridges fired by different shooting styles
 ○ M. Nagai (National Research Inst. of Police Sci.)
- D-8 Reproducibility of breech face marking and firing pin marking
 ○ T. Uchiyama (National Research Inst. of Police Sci.)

Speech and Acoustics

November 17 (Thu) Sub-Hall

10:54~11:30 *Chairperson: T. Suzuki (Japanese Identification Center of Forensic Sci. Co. Ltd.)*

- D-9 Running checks on possibilities for a change of acoustic character caused by IC recorder
 ○ Y. Nishijima, H. Takeshita, A. Hirashima and K. Toyama (Forensic Sci. Lab., Fukuoka Pref. Police HQ.)
- D-10 Determine a study about speaker verification in noise environment
 ○ T. Kamada, T. Osanai, H. Makinae and M. Tanimoto (National Research Inst. of Police Sci.)
- D-11 Effect of Formant frequency in noisy environments
 ○ M. Tanimoto, T. Osanai, T. Kamada and H. Makinae (National Research Inst. of Police Sci.)

Fire Investigation

November 17 (Thu) Sub-Hall

- 13:00~13:48 *Chairperson: S. Kotani (Forensic Sci. Lab., Wakayama Pref. Police HQ.)*
- D-12 A vehicle fire caused by a smoldering cushion on the seat
 ○M. Suwa, S. Kato and H. Hinohara (Criminal Investigation Lab., Saitama Pref. Police HQ.)
- D-13 Case reports of car fire
 ○R. Uchino (Forensic Sci. Lab., Nagasaki Pref. Police HQ.)
- D-14 Influence of door window opening on oxygen concentration in a automotive cabin fire
 ○R. Masano^{*1}, H. Sato^{*2}, M. Suwa^{*3}, K. Okamoto^{*1}, N. Watanabe^{*1} and Y. Hagimoto^{*1}
 (National Research Inst. of Police Sci.^{*1}, Forensic Sci. Lab., Chiba Pref. Police HQ.^{*2}, Criminal Investigation Lab., Saitama Pref. Police HQ.^{*3})
- D-15 Influence of door window opening on combustion in automotive cabins
 ○N. Watanabe^{*1}, H. Sato^{*2}, M. Suwa^{*3}, R. Masano^{*1}, K. Okamoto^{*1} and Y. Hagimoto^{*1}
 (National Research Inst. of Police Sci.^{*1}, Forensic Sci. Lab., Chiba Pref. Police HQ.^{*2}, Criminal Investigation. Lab., Saitama Pref. Police HQ.^{*3})
- 13:58~14:46 *Chairperson: T. Fujiwara (Forensic Sci. Lab., Okayama Pref. Police HQ.)*
- D-16 On the proving method of current-on electric heaters (2)
 ○M. Hori (Criminal Investigation Lab., Aichi Pref. Police HQ.)
- D-17 Case report of push-button gas cooking stove
 ○Y. Iбата (Forensic Sci. Lab., Kumamoto Pref. Police HQ.)
- D-18 Case report doubted combustion of cooking oil (in plastic bottle) close to electric range
 ○K. Hosomi, Y. Sanpei and H. Sato (Forensic Sci. Lab., Chiba Pref. Police HQ.)
- D-19 The diffusion area of gasoline vapor on the floor
 ○H. Sato^{*1}, T. Ikegami^{*2}, H. Yamamoto^{*3}, Y. Hagimoto^{*4}, N. Watanabe^{*4}, K. Okamoto^{*4}
 and R. Masano^{*4} (Forensic Sci. Lab., Chiba Pref. Police HQ.^{*1}, Forensic Sci. Lab., Shizuoka Pref. Police HQ.^{*2}, Forensic Sci. Lab., Ishikawa Pref. Police HQ.^{*3}, National Research Inst. of Police Sci.^{*4})
- 14:56~15:44 *Chairperson: H. Sugimoto (Forensic Sci. Lab., Ishikawa Pref. Police HQ.)*
- D-20 The change of physical and chemical properties of thermal degraded drying oil
 ○K. Shibasaki and T. Kaneko (Forensic Sci. Lab., Chiba Pref. Police HQ.)
- D-21 Characteristics of exothermic reaction of paints that consist of vegetable oils
 ○T. Iwashita, M. Hiramatsu, Y. Yamamoto, J. Ohtake and T. Ohmori (Forensic Sci. Lab., Yamanashi Pref. Police HQ.)
- D-22 Check on time to ignition for spontaneous combustion of RDF
 ○O. Sugawa^{*1}, T. Sato^{*1}, R. Kobayashi^{*1} and K. Kamiya^{*2} (Suwa Tokyo Univ. of Sci.^{*1}, Japan Specialist in Law Engineering Corp.^{*2})
- D-23 Ignition of combustible materials by short-circuit sparks; Experiments on the minimum spark energy
 ○Y. Hagimoto, N. Watanabe, K. Okamoto and R. Masano (National Research Inst. of Police Sci.)

Explosion

November 17 (Thu) Sub-Hall

- 16:00~17:00 *Chairperson: K. Kinoshita (Retd. National Research Inst. of Police Sci.)*
- D-24 A case report on steam explosion
 ○Y. Yamamoto, M. Hiramatsu, T. Iwashita, and J. Ohtake (Forensic Sci. Lab., Yamanashi Pref. Police HQ.)
- D-25 A study of the explosion accident caused by excreta
 ○Y. Takabayashi (Forensic Sci. Lab., Tochigi Pref. Police HQ.)
- D-26 Analysis of organic explosives, TATP, HMTD, TNT, DNT, NG and other compounds by GC/MS-NCI

○M. Kumihashi, K. Suga, T. Shibayama and H. Miyauchi (Research Inst. of Scientific Criminal Investigation, Kagawa Pref. Police HQ.)

D-27 Analysis of organic peroxides

○M. Kazama and M. Kudo (Criminal Investigation Lab., Metropolitan Police Dep.)

D-28 Influence of aluminum grain size on the detonation of ammonium nitrate-aluminum mixture

○H. Arai and J. Nakamura (National Research Inst. of Police Sci.)

Traffic Accident

November 18 (Fri) Sub-Hall

9:00~9:48

Chairperson: A. Suzuki (Forensic Sci. Lab., Fukushima Pref. Police HQ.)

D-29 Impact tests of sliding motorcycle vs. passenger car

○K. Koide, T. Kodama, H. Nakajima and Y. Satta (Forensic Sci. Lab., Osaka Pref. Police HQ.)

D-30 Experimental study on speed estimate of vehicle with deformation of walker for an aged person

○K. Goto, Y. Kuchimoto and M. Ohno (Forensic Sci. Lab., Miyazaki Pref. Police HQ.)

D-31 Behavioral analysis of bicycles hit by a heavy truck while its making sharp left at an intersection

○K. Sato, Y. Fujita and Y. Shimizu (Criminal Investigation Lab., Oita Pref. Police HQ.)

D-32 An experimental research on bicycle accidents

○S. Miyoshi^{*1} and H. Yamamoto^{*2} (Forensic Sci. Lab., Kochi Pref.^{*1}, National Research Inst. of Police Sci.^{*2})

10:00~11:00

Chairperson: N. Nishiyama (Forensic Sci. Lab., Mie Pref. Police HQ.)

D-33 A study of speed analysis for passenger cars in falls over embankments

○M. Fukuma and M. Miura (Criminal Investigation Lab., Shimane Pref. Police HQ.)

D-34 Measurement of vehicle velocity and position from TAAMS image

○T. Kodama, K. Koide, H. Nakajima and Y. Satta (Forensic Sci. Lab., Osaka Pref. Police HQ.)

D-35 An experimental study of the coefficient of friction on the drainage pavement –Part 2

○E. Teratsuji^{*1}, J. Morishita^{*1}, T. Fukawa^{*1}, T. Kobayashi^{*2}, H. Hisada^{*2}, K. Konishi^{*3}, T. Nishida^{*3}, T. Toyoda^{*3}, N. Kawashima^{*4} and S. Yamazaki^{*5} (Forensic Sci. Lab., Hyogo Pref. Police HQ.^{*1}, Forensic Sci. Lab., Kyoto Pref. Police HQ.^{*2}, Traffic Enforcement Section, Kyoto Pref. Police HQ.^{*3}, Osaka Sangyo Univ.^{*4}, Japan Automobile Research Inst.^{*5})

D-36 Reconstruction of unusual traffic accidents such as barrier crush in 170km/h

○Y. Motomiya (Forensic Sci. Lab., Niigata Pref. Police HQ.)

D-37 Study of vehicle crashworthiness based on the full frontal impact test

○R. Oga (National Research Inst. of Police Sci.)

Mechanical Engineering

November 18 (Fri) Sub-Hall

11:15~11:51

Chairperson: M. Mizoguchi (Forensic Sci. Lab., Saga Pref. Police HQ.)

D-38 Relationship between the force to pierce and notebook perforation number of sheets

○Y. Itoh, and K. Mogami (National Research Inst. of Police Sci.)

D-39 Case study concerning failure analysis of machines and structure by Vickers hardness test

○T. Ishihara (Criminal Investigation Lab., Aichi Pref. Police HQ.)

D-40 Relation between plastic constraint factor and fracture stress

○M. Ohashi (National Research Inst. of Police Sci.)

Engineering

November 18 (Fri) Sub-Hall

13:00~13:48

Chairperson: Y. Shimizu (Forensic Sci. Lab., Oita Pref. Police HQ.)

- D-41 Imaging of latent fingerprints on black printed papers
○N. Saitoh, N. Akiba and K. Kuroki (National Research Inst. of Police Sci.)
- D-42 Excitation spectra of fluorescence of fingerprint with a tunable pulsed laser
○N. Akiba, N. Saitoh and K. Kuroki (National Research Inst. of Police Sci.)
- D-43 Fundamental study on malfunction mechanisms of a self-learning electronic control system
○K. Kurosawa, K. Kuroki, N. Akiba and N. Igarashi (National Research Inst. of Police Sci.)
- D-44 Application of positron annihilation spectroscopy method for forensic science
○K. Kuroki, S. Saitoh, K. Kurosawa, N. Akiba and N. Igarashi (National Research Inst. of Police Sci.)

Image Processing

November 18 (Fri) Sub-Hall

14:12~15:00

Chairperson: A. Inagaki (Forensic Sci. Lab., Shiga Pref. Police HQ.)

- D-45 Identification of low resolution car license plate number
○T. Akiyama^{*1}, K. Fujita^{*2} and A. Inagaki^{*3} (Kyoto Inst. of Tech.^{*1}, Faculty of Sci. and Tech., Ryukoku Univ.^{*2}, Forensic Sci. Lab., Shiga Pref. Police HQ.^{*3})
- D-46 Measuring stature using perspective camera model on surveillance
○H. Terashima^{*1}, K. Fujita^{*2}, T. Shirazawa^{*3}, A. Inagaki^{*4} and Y. Kida^{*4} (Terashima Inc.^{*1}, Ryukoku Univ.^{*2}, Nara Inst. of Sci. and Tech., Grad. School of Info. Sci.^{*3}, Forensic Sci. Lab., Shiga Pref. Police HQ.^{*4})
- D-47 Evaluation of out-of-focus images using measurement differencing filter
○K. Nagao^{*1}, K. Fujita^{*2}, A. Inagaki^{*3} (Kyoto Inst. of Tech.^{*1}, Faculty of Sci. and Tech., Ryukoku Univ.^{*2}, Forensic Sci. Lab., Shiga Pref. Police HQ.^{*3})
- D-48 Improvement of motion-blurred JPEG image
○K. Fujita^{*1}, A. Inagaki^{*2} (Faculty of Sci. and Tech., Ryukoku Univ.^{*1}, Forensic Sci. Lab., Shiga Pref. Police HQ.^{*2})

Crime Scene Investigation (E)

November 17 (Thu) Sakura-Nishi

14:40~15:28

Chairperson: I. Mitsumochi (Identification Div., Kanagawa Pref. Police HQ.)

- E-1 Basic study on manufacturing characteristics: Air bubbles occurred in soles during the manufacturing processes
○T. Suzuki^{*1}, A. Suemoto^{*2}, K. Azuma^{*3} and H. Tamura^{*3} (Identification Div., Miyagi Pref. Police HQ.^{*1}, Identification Div., Fukui Pref. Police HQ.^{*2}, Forensic Sci. Lab., Fukushima Pref. Police HQ.^{*3})
- E-2 Identification of shoeprints measuring a foot density – Part 2 –
○K. Azuma (Forensic Sci. Lab., Fukushima Pref. Police HQ.)
- E-3 Utilization of polymeric gelatinizing agent for collecting accelerants in fire scene
○T. Kaneko (Forensic Sci. Lab., Chiba Pref. Police HQ.)
- E-4 Development of erasure-punch marks using magnetic particle testing devices
○T. Okazoe^{*1}, K. Hibino^{*2} and S. Takeuchi^{*2} (Identification Div., Gifu Pref. Police HQ.^{*1}, Sci. Investigation Lab., Gifu Pref. Police HQ.^{*2})

15:38~16:14

Chairperson: S. Sakoda (Forensic Sci. Lab., Osaka Pref. Police HQ.)

- E-5 Statistical analysis of unknown bodies' dental records which is kept in Chiba Prefectural

Police Headquarters

○Y. Hanaoka^{*1}, N. Takahashi^{*2}, T. Tsuzuki^{*3}, M. Kajiwara^{*4}, K. Minaguchi^{*1} and Y. Sato^{*4} (Dep. of Forensic Odontology, Tokyo Dental College^{*1}, Sci. Crime Lab., Chiba Pref. Police HQ.^{*2}, Center of Legal Medicine of Dentistry, Nippon Dental Univ.^{*3}, Dep. of Legal Medicine, Kyorin Univ.^{*4})

E-6 Application of forensic materials by the Polilight

○A. Ashiguchi, Y. Hayashi and K. Maeta (Sci. Crime Lab., Tottori Pref. Police HQ.)

E-7 Image taking of the dental findings using intra-oral color image scanner system, part 2, The improvement of the equipment and development of the software for preparation of digital dental chart

○T. Tsuzuki^{*1}, Y. Hanaoka^{*2}, M. Yoshida^{*3}, M. Kajiwara^{*3}, A. Ueno^{*3}, M. Yasuda^{*4}, T. Watanabe^{*4}, K. Minaguchi^{*2} and Y. Sato^{*3} (Center of Legal Medicine of Dentistry, Nippon Dental Univ. School of Dentistry at Tokyo^{*1}, Dept. of Forensic Odontology, Tokyo Dental College^{*2}, Dep. of Legal Medicine, Kyorin Univ. School of Medicine^{*3}, Products Development Dep., Kawasaki Research & Development Center, Mitutoyo Corp.^{*4})

16:24~17:00

Chairperson: O. Sakaki (Identification Div., National Police Agency)

E-8 Development of latent fingerprint on adhesive tape by iron dispersion liquid under acidic condition

○K. Hibino^{*1}, Y. Sasajima^{*2}, T. Kurikawa^{*3} and T. Ohta^{*4} (Identification Div., Gifu Pref. Police HQ.^{*1}, Sci. Investigation Lab., Gifu Pref. Police HQ.^{*2}, Suzuka Police Station, Mie Pref. Police^{*3}, Kumano Police Station, Mie Pref. Police^{*4})

E-9 Simple fluorescence observation system for latent fingerprint detection

○M. Takatsu^{*1}, O. Shimoda^{*1}, K. Fukuda^{*2}, A. Onishi^{*3} and N. Oguri^{*3} (Forensic Sci. Lab., Hyogo Pref. Police HQ.^{*1}, Identification Div., Hyogo Pref. Police HQ.^{*2}, Japan Analytical Industry Co., Ltd.^{*3})

E-10 2-propanol/*n*-pentane-ninhydrin solution, a new fingerprint developer for thermal papers

○K. Suga^{*1}, T. Ohue^{*2}, T. Shibayama^{*1}, M. Kumihashi^{*1} and H. Miyauchi^{*1} (Forensic Sci. Lab., Kagawa Pref. HQ.^{*1}, Ryonan Police Station, Kagawa Pref. Police^{*2})

Forensic Psychology (F)

November 17 (Thu) Conference Room AB

13:00~14:00 *Chairperson: K. Kobayashi (Forensic Sci. Lab., Hiroshima Pref. Police H. Q.)*

F-1 Eye-blink and eye-movement in the polygraph test: Presentation of stimuli using positional information

○K. Sugawa and M. Ishikawa (Forensic Sci. Lab., Ishikawa Pref. Police HQ.)

F-2 Heart rate in detection of deception — Effect of respiration —

○T. Suzuki (Sci. Criminal Investigation Lab., Kanagawa Pref. Police HQ.)

F-3 Influence of the respiratory change to the CR pattern detection which made HR the index

○N. Fukada (Sci. Investigation Lab., Fukushima Pref. Police HQ.)

F-4 Normalized pulse volume during a card test in a practical polygraph examination

○A. Hirota^{*1}, K. Tabata^{*2}, K. Ono^{*2}, S. Tateno^{*3}, M. Koike^{*3}, T. Kobayashi^{*4}, S. Yamamoto^{*5}, I. Matsuda^{*1} and T. Ogawa^{*1} (National Research Inst. of Police Sci.^{*1}, Sci. Investigation Lab., Aomori Pref. Police HQ.^{*2}, Forensic Sci. Lab., Ibaraki Pref. Police HQ.^{*3}, Forensic Sci. Lab., Kyoto Pref. Police HQ.^{*4}, Forensic Sci. Lab., Miyazaki Pref. Police HQ.^{*5})

F-5 Utility of reaction time measure in concealed information test: A preliminary study

○T. Ogawa^{*1}, I. Matsuda^{*1}, A. Hirota^{*1} and N. Takasawa^{*2} (First Information Sci., National Research Inst. of Police Sci.^{*1}, Social Sci., Edogawa Univ.^{*2})

14:10~15:22

Chairperson: N. Takasawa (Edogawa Univ.)

- F-6 The serial change on the electrodermal response in the detection of deception test
○K. Oshima^{*1} and T. Ohama^{*2} (Forensic Sci. Lab., Okayama Pref. Police HQ.^{*1}, Forensic Sci. Lab., Yamaguchi Pref. Police HQ.^{*2})
- F-7 A study on response patterns of the polygraph test
○T. Okuno and H. Izumikawa (Forensic Sci. Lab., Osaka Pref. Police HQ.)
- F-8 A study on the strategy of the question in polygraph test (2)
○H. Izumikawa and T. Okuno (Forensic Sci. Lab., Osaka Pref. Police HQ.)
- F-9 The physiological responses during the field polygraph test with 5 sets
○T. Kobayashi, S. Fujihara and H. Kizaki (Forensic Sci. Lab., Kyoto Pref. Police HQ.)
- F-10 Psychophysiological detection of deception with virtual reality stimuli
○M. Mizutani^{*1}, H. Fujiwara^{*1}, T. Ohtsuka^{*1} and A. Yagi^{*2} (Forensic Sci. Lab., Hyogo Pref. Police HQ.^{*1}, Humanity, Kwansei Gakuin Univ.^{*2})
- F-11 A study of information transmitting system for polygraph test
○M. Terakado^{*1}, R. Kuga^{*2} and T. Kosugi^{*3} (Seisen Jogakuin College^{*1}, College of Humanities & Sciences, Nihon Univ.^{*2}, Criminal Investigation Lab., Metropolitan Police Dep.^{*3})

15:32~16:20

Chairperson: Y. Okazaki (Forensic Sci. Lab., Kochi Pref. Police HQ.)

- F-12 The real damage and the victim characteristics of stalking (1) — Examination of the degree of permission —
○M. Kaneko^{*1}, M. Kiriu^{*2} and N. Yamamoto^{*2} (Criminal Investigation Lab., Shimane Pref. Police HQ.^{*1}, Forensic Sci. Lab., Yamagata Pref. Police HQ.^{*2})
- F-13 An analysis of snatch at the local city
○J. Fukumoto^{*1}, K. Matsuno^{*2} and T. Kasuya^{*3} (Forensic Sci. Lab., Yamaguchi Pref. Police HQ.^{*1}, Kansai Univ. of International Studies^{*2}, Forensic Sci. Lab., Metropolitan Police Dep.^{*3})
- F-14 A study on profiling of serial arson
○T. Sugimoto (Forensic Sci. Lab., Nagasaki Pref. Police HQ.)
- F-15 Development of incident-retrieval system based on Modus Operandi: Effectiveness of a crime-database for predicting offenders' profiles
○K. Yokota, G. Fujita, K. Watanabe, K. Yoshimoto and T. Wachi (National Research Inst. of Police Sci.)

Questioned Documents (G)

November 18 (Fri) Conference Room AB

9:00~10:12

Chairperson: M. Kondo (Forensic Sci. Lab., Niigata Pref. Police HQ.)

- G-1 A study on examination the stamp contaminated by water
○H. Sugahara (Criminal Investigation Lab., Aichi Pref. Police HQ.)
- G-2 Study of seal stamp identification using stamp with pointer
○T. Suzuki, C. Kameshima, M. Suzuki and K. Tokiwa (Criminal Investigation Lab., Metropolitan Police Dep.)
- G-3 Identification of TrueType font using genetic algorithm
○M. Ueda^{*1}, S. Tanaka^{*1}, T. Kamitani^{*2} and Y. Marutani^{*2} (Forensic Sci. Lab., Kyoto Pref. Police HQ.^{*1}, Faculty of Engineering, Osaka Sangyo Univ.^{*2})
- G-4 Identification of newspaper using genetic algorithm
○R. Iga^{*1}, M. Ueda^{*2}, S. Tanaka^{*2}, T. Kamitani^{*1} and Y. Marutani^{*1} (Faculty of Engineering, Osaka Sangyo Univ.^{*1}, Forensic Sci. Lab., Kyoto Pref. Police HQ.^{*2})
- G-5 Identification system of word processor models using genetic algorithm
○K. Kotani^{*1}, Y. Marutani^{*2} and T. Kamitani^{*2} (Forensic Sci. Lab., Osaka Pref. Police HQ.^{*1}, Faculty of Engineering, Osaka Sangyo Univ.^{*2})

- G-6 Inference of language by alphabets with the diacritical mark
○H. Nagakawa (Forensic Sci. Lab., Miyazaki Pref. Police HQ.)

10:22~11:46 *Chairperson: T. Izawa (Forensic Sci. Lab., Shizuoka Pref. Police HQ.)*

- G-7 Classification of color copy machines
○C. Kameshima, T. Tokiwa and H. Muto (Criminal Investigation Lab., Metropolitan Police Dep.)
- G-8 Differentiation of near-infrared-light-absorption-type black inks for ink-jet printers
○S. Sugawara, S. Mukai and Y. Seki (National Research Inst. of Police Sci.)
- G-9 Measurement and modeling of gonio spectral radiance properties of colored paper sheets
○Y. Akao^{*1}, T. Nakaguchi^{*2}, N. Tsumura^{*2} and Y. Miyake^{*2} (National Research Inst. of Police Sci.^{*1}, Faculty of Engineering, Chiba Univ.^{*2})
- G-10 Development of a new examination method using histograms of brightness for questioned documents (3) – Examination of channels of histograms –
○M. Shimoyama and K. Kobayashi (Forensic Sci. Lab., Hyogo Pref. Police HQ.)
- G-11 Grouping and inspection method of artificial passport
○T. Ohuchi, H. Sakakibara and H. Sugahara (Criminal Investigation Lab., Aichi Pref. Police HQ.)
- G-12 Simple and non-destructive analysis of coins using acoustic characteristics (1): KC-63 type
○M. Suzuki, K. Tokiwa, H. Muto and I. Hayama (Criminal Investigation Lab., Metropolitan Police Dep.)
- G-13 Examination of altered coins by X-ray Computed Tomography system
○S. Saitoh (National Research Inst. of Police Sci.)

13:00~14:00 *Chairperson: T. Nakata (Forensic Sci. Lab., Shiga Pref. Police HQ.)*

- G-14 Size of each character within several characters written in Japanese and writer identification
○M. Okubo, Y. Taguchi and M. Simizu (Forensic Sci. Lab., Fukuoka Pref. Police HQ.)
- G-15 Application of Eigen Space Method to writer identification (2)
○M. Yoshida^{*1}, M. Aizawa^{*1}, S. Nishikawa^{*1} and Y. Kobayashi^{*2} (Forensic Sci. Lab., Saitama Pref. Police HQ.^{*1}, Graduate School of Sci. and Tech., Chiba Univ.^{*2})
- G-16 A study on the writer classification using qualitative data
○Y. Suzuki and C. Nishimoto (Forensic Sci. Lab., Wakayama Pref. Police HQ.)
- G-17 Writer verification using a small number of reference character samples
○K. Misaki^{*1}, M. Okubo^{*2} and M. Umeda^{*2} (Forensic Sci. Lab., Hyogo Police Dep.^{*1}, Graduate School of Engineering, Osaka Electro-Communication Univ.^{*2})
- G-18 Identification of false signature by statistics method
○R. Wakatsuki (Kansai Document & Forensic Sci. Lab.)

14:10~15:22 *Chairperson: T. Iwata (Forensic Sci. Lab., Tokushima Pref. Police HQ.)*

- G-19 Inter and Intra individual variation based on geometrical distribution of character elements
○K. Tokiwa^{*1}, T. Koizumi^{*2} and K. Fukue^{*2} (Criminal Investigation Lab., Metropolitan Police Dep.^{*1}, School of Engineering II, Tokai Univ.^{*2})
- G-20 Intrapersonal variations and changes by aging in Handwriting
○M. Tsukahara and M. Fukui (Forensic Sci. Lab., Hokkaido Police HQ.)
- G-21 Fundamental study for the effects on handwriting (2): Examination of printing type character and model character
○R. Koshihara, T. Honma and M. Koyama (Sci. Criminal Investigation Lab., Kanagawa Pref. Police HQ.)
- G-22 The various stroke order of handwritten Chinese characters

○M. Fujii^{*1}, K. Oshima^{*2}, N. Yokota^{*3} and T. Katoh^{*1} (Criminal Investigation Lab., Gifu Pref. Police HQ.^{*1}, Criminal Investigation Lab., Okayama Pref. Police HQ.^{*2}, Criminal Investigation Lab., Mie Pref. Police HQ.^{*3})

G-23 Measurement of the wrist pivot during writing movements

○Y. Seki^{*1}, T. Furukawa^{*2}, Y. Akao^{*1}, S. Sugawara^{*1} and S. Mukai^{*1} (National Research Inst. of Police Sci.^{*1}, Sci. Criminal Investigation Lab., Ibaraki Pref. Police HQ.^{*2})

G-24 The study of the conditions for the detection of indented impressions overlapped with latent fingerprint using ESDA

○T. Taniguchi (Forensic Sci. Lab., Osaka Pref. Police HQ.)