

Special Lecture

Thursday 12th Hall I

11:10 - 12:10 *Chairperson: I. Nakasono (Nagasaki University Graduate School of Biomedical Sciences)*

Nuclear Disaster and Correspondence of Global Health and Medical Societies:
lessons learned from Chernobyl Nuclear Power Plant Accident
S. Yamashita (Nagasaki University Graduate School of Biomedical Sciences)

Symposium

Friday 13th Hall I

12:40 - 14:10 *Coordinator: M. Yoshino (National Research Inst. of Police Sci.)*

Forensic Expert Opinions and Examination of a Witness

Presenters:

Y. Yamamoto	(Criminal Invest. Lab., Saitama Pref. Police H.Q.)
A. Miki	(Forensic Sci. Lab., Osaka Pref. Police H.Q.)
S. Suzuki	(National Research Inst. of Police Sci.)
R. Koshiba	(Scientific Crime Invest. Lab., Kanagawa Pref. Police H.Q.)
M. Tanimoto	(A Former National Research Inst. of Police Sci.)

Oral Presentations

Forensic Biology (A)

Thursday 12th Hall I

09:00 - 09:44 *Chairperson: H. Ikegaya (Dept. of Legal Med., Kyoto Pref. Univ. of Med.)*

A-01 Preliminary test of saliva identification using coloration reagent

H. Nakanishi^{*1,3}, T. Ohmori^{*2}, M. Hara^{*3}, A. Takada^{*3}, H. Shojo^{*4}, N. Adachi^{*4}, K. Saito^{*3} (Forensic Sci. Lab., Yamanashi Pref. Police H.Q.^{*1}, National Research Inst. of Police Sci.^{*2}, Dept. of Forensic Med., Saitama Medical Univ.^{*3}, Dept. of Legal Med., Yamanashi Univ.^{*4})

A-02 Examination of factors which affect urine search method

Y. Yonezawa, A. Ashiguchi, K. Maeta, Y. Hayashi (Scientific Crime Lab., Tottori Pref. Police H.Q.)

A-03 Analysis of urinary component by CE/MS

S. Akiba, R. Sohma, T. Sakuraba, K. Mamiya, E. Munakata (Scientific Invest. Lab., Aomori Pref. Police H.Q.)

A-04 Identification of vaginal secretion by HPLC and cytological method

N. Koizumi (Forensic Sci. Lab., Yamaguchi Pref. Police H.Q.)

09:50 - 10:23

Chairperson: I. Sato (Scientific Crime Lab., Kanagawa Pref. Police H.Q.)

A-05 A systematic method for identifying body fluids by enzyme-linked immunosorbent assay -Application for saliva, sweat and urine identification-

T. Akutsu^{*1}, K. Watanabe^{*1}, H. Fukushima^{*2}, Y. Fujinami^{*1}, K. Sakurada^{*1} (National. Research Inst. of Police Sci.^{*1}, Forensic Sci. Lab., Hokkaido Pref. Police H.Q.^{*2})

A-06 Body fluids identification premising STR typing

R. Sohma, S. Akiba, S. Aiba, N. Ohta, T. Murakawa (Scientific Invest. Lab., Aomori Pref. Police H.Q.)

A-07 Use of lectin for the detection of carbohydrate antigen from forensic samples

H. Fukushima^{*1}, M. Kai^{*1}, H. Niwa^{*1}, T. Kimura^{*1}, K. Sakurada^{*2} (Criminal Invest. Lab., Hokkaido Pref. Police H.Q.^{*1}, National Research Inst. of Police Sci.^{*2})

10:30 - 11:03

Chairperson: H. Iwase (Dept. of Legal Med., Graduate School of Med., Chiba Univ.)

A-08 Tracing of the geographical origins of unidentified cadavers using varicella-zoster virus DNA - Detection from a variety of unidentified cadavers -

H. Inoue^{*1,2}, H. Motani^{*2}, K. Sakurada^{*3}, H. Ikegaya^{*4}, D. Yajima^{*2}, S. Nagasawa^{*2}, K. Otsuka^{*2}, K. Kobayashi^{*2}, K. Sato^{*2}, H. Iwase^{*2} (Criminal Invest. Lab., Chiba Pref. Police H.Q.^{*1,2}, Dept. of Legal Med., Graduate School of Med., Chiba Univ.^{*2}, National Research Inst. of Police Sci.^{*3}, Dept. of Legal Med., Kyoto Pref. Univ. of Med.^{*4})

A-09 A study on the biomechanics of brain injury in shaken baby syndrome (Part 1) -An experiment using a gelatin brain model-

A. Nasu^{*1}, S. Fujiwara^{*1}, S. Nishimura^{*1}, T. Aoyagi^{*1}, S. Nambu^{*1}, Y. Sawaguchi^{*1}, K. Koide^{*1}, A. Nishimura^{*2} (Dept. of Forensic Med., Yokohama City Univ., School of Med.^{*1}, Dept. of Forensic Med., Inst. of Health Biosciences, The Univ. of Tokushima Graduate School^{*2})

A-10 A study on the biomechanics of brain injury in shaken baby syndrome (Part 2) -Simulating analysis using a finite element brain model-

S. Nishimura^{*1}, S. Fujiwara^{*1}, A. Nasu^{*1}, T. Aoyagi^{*1}, S. Nambu^{*1}, Y. Sawaguchi^{*1}, K. Koide^{*1}, Y. Zhang^{*2}, S. Aomura^{*2} (Dept. of Forensic Med., Yokohama City Univ., School of Med.^{*1}, Graduate School of System Design, Tokyo Metropolitan Univ.^{*2})

13:30 - 14:03

Chairperson: H. Biwasaka (Sci. Crime Detection Lab. Iwate Pref. Police H.Q.)

A-11 Identification and DNA profiling of the biological samples in traffic accidents

M. Sakurada^{*1,2}, A. Kuze^{*2}, Y. Ueno^{*2}, S. Watanabe^{*1} (Forensic Sci. Lab., Hyogo Pref. Police H.Q.^{*1}, Dept. of Forensic Med., Faculty of Med., Kobe Univ.^{*2})

A-12 Intra-individual variation of hair morphology

H. Matsuda, A. Hattori, S. Kubota (National Research Inst. of Police Sci.)

A-13 Establishment of new criteria for sex determination from the skull -An experimental discriminant function using modern Japanese samples-

Y. Ogawa, S. Miyasaka, K. Imaizumi, M. Yoshino (National Research Inst. of Police Sci.)

14:15 - 14:59

Chairperson: T. Komuro (Dept. of Legal Med., Nihon Univ., School of Dent.)

A-14 Development of software for assisting facial image analyzing

Y. Iwata (Forensic Sci. Lab., Saga Pref. Police H.Q.)

A-15 Effect of shooting conditions in facial images -The facial image taken by Speed trap-

S. Hashimoto, K. Toyama, N. Tanada (Forensic Sci. Lab., Fukuoka Pref. Police H.Q.)

A-16 Study of the personal identification in twins using facial images

M. Atsuchi^{*1,2}, A. Tsuji^{*2}, N. Ikeda^{*2} (Forensic Sci. Lab., Fukuoka Pref. Police H.Q.^{*1}, Dept. of Forensic Pathology and Sciences, Graduate School of Medical Sciences, Kyushu Univ.^{*2})

A-17 Evaluation of facial matching accuracy in an automatic retrieval and comparison system using a 3D database of facial images

S. Miyasaka, Y. Ogawa, K. Imaizumi, M. Yoshino (National Research Inst. of Police Sci.)

15:15 - 15:59

Chairperson: S. Miyasaka (National Research Inst. of Police Sci.)

A-18 Usefulness of 3D CT images for the skull superimposition (2nd presentation)

M. Ishii^{*1}, T. Tomioka^{*1}, K. Yayama^{*2}, A. Sakuma^{*3}, M. Hayakawa^{*3}, H. Motani^{*3}, D. Yajima^{*3}, S. Yamamoto^{*4}, H. Iwase^{*3} (Forensic Sci. Lab., Chiba Pref. Police H.Q.^{*1}, Forensic Sci. Lab., Kyoto Pref. Police H.Q.^{*2}, Dept. of Legal Med., Graduate School of Med., Chiba University^{*3}, Dept. of Radiology, Graduate School of Med., Chiba University^{*4})

A-19 Personal identification from the dentition using CT images

A. Sakuma^{*1}, S. Yamamoto^{*2}, R. Shimofusa^{*2}, H. Motani^{*1}, Y. Makino^{*1,2}, D. Yajima^{*1}, H. Inoue^{*1}, H. Iwase^{*1} (Dept. of Legal Med., Graduate School of Med., Chiba Univ.^{*1}, Dept. of Radiology, Graduate School of Med., Chiba Univ.^{*2})

A-20 Application of the surface and volume data in 3D-CT images

S. Katsumura^{*1}, T. Ikawa^{*2}, S. Kasama^{*2}, Y. Shigeta^{*2}, T. Ogawa^{*2}, K. Sato^{*1} (Dept. of Forensic Med. and Dent., Tsurumi Univ.^{*1}, Dept. of Fixed Prosthodontics, Tsurumi Univ.^{*2})

A-21 A case of presumption of the weapon using 3D CT images

H. Biwasaka^{*1}, T. Tokuta^{*1}, Y. Sasaki^{*1}, K. Satou^{*1}, H. Tanijiri^{*2}, Y. Aoki^{*3}, M. Takamiya^{*4}, K. Dewa^{*4} (Sci. Crime Detection Lab., Iwate Pref. Police H.Q.^{*1}, Medic Engineering Co.^{*2}, Dept. of Forensic Med., Nagoya City Univ., Graduate School of Medical Sciences and Medical School^{*3}, Dept. of Legal Med, Iwate Medical Univ., School of Med.^{*4})

Friday 13th Hall I

08:30 - 09:25

Chairperson: Y. Yamamoto (Criminal Invest. Lab., Saitama Pref. Police H.Q.)

A-22 Comparison between the human DNA detection method and human specific antigen detection method for forensic samples

H. Nakahara^{*1}, K. Ujiie^{*2}, H. Sato^{*3}, F. Igarashi^{*4}, K. Noguchi^{*5}, H. Ishikawa^{*6}, A. Nishinakagawa^{*7}, K. Maeta^{*8}, M. Doi^{*9}, E. Nishi^{*10} (National Research Inst. of Police Sci.^{*1}, Criminal Invest. Lab., Miyagi Pref. Police H.Q.^{*2}, Fukushima Pref. Police H.Q.^{*3}, Ibaraki Pref. Police H.Q.^{*4}, Gunma Pref. Police H.Q.^{*5}, Yamanashi Pref. Police H.Q.^{*6}, Hyogo Pref. Police H.Q.^{*7}, Tottori Pref. Police H.Q.^{*8}, Ehime Pref. Police H.Q.^{*9}, Oita Pref. Police H.Q.^{*10})

A-23 Quantitation and screening of male DNA using real-time PCR

Y. Unno, T. Ami (Scientific Invest. Lab., Fukushima Pref. Police H.Q.)

A-24 Effect of filtration for collecting sperm heads in a two-step cell digestion method

T. Nakagawa, T. Ohno, M. Doi, H. Miyake, T. Okiura (Criminal Invest. Lab., Ehime Pref. Police H.Q.)

A-25 Speed-up of washing procedure for sperm fraction in two-step differential extraction

H. Nakayama, M. Sasaki, T. Kudose, M. Miyoshi, D. Hino, H. Moriyoshi, T. Morikawa, S. Nakaki, K. Itohara (Forensic Sci. Lab., Hiroshima Pref. Police H.Q.)

A-26 Study for efficiency of the DNA extraction using PrepFiler

Y. Harayama, K. Tsukada, Y. Kurasawa, K. Kasahara (Criminal Invest. Lab., Nagano Pref. Police H.Q.)

09:40 - 10:24

Chairperson: K. Sato (Dept. of Forensic Med. and Dent., Tsurumi Univ.)

A-27 Effect of detection methods of latent fingerprints on STR typing (2nd presentation)

K. Fujii^{*1}, K. Hibino^{*2}, T. Morita^{*2}, T. Kitayama^{*1}, H. Nakahara^{*1}, N. Mizuno^{*1}, K. Sekiguchi^{*1}
(National Research Inst. of Police Science^{*1}, Identification Div., National Police Agency^{*2})

A-28 Forensic application of STR typing kits containing SRY marker

T. Takayama, N. Takada, R. Suzuki, Y. Watanabe (Criminal Invest. Lab., Gifu Pref. Police H.Q.)

A-29 Validation studies on AmpFISTR MiniFiler PCR amplification Kit for forensic application

N. Mizuno, T. Kitayama, K. Fujii, H. Nakahara, K. Kasai, K. Sekiguchi (National Research Inst. of Police Sci.)

A-30 Feasibility of short tandem repeat data using AmpFISTR Identifier kit on the personal identification

T. Tamura^{*1}, M. Osawa^{*2}, S. Tanaka^{*1}, R. Kimura^{*3}, Y. Inaoka^{*2}, M. Soda^{*2}, K. Yamamoto^{*1}, A. Ishiwari^{*1}, T. Suzuki^{*1}, I. Sato^{*1} (Scientific Crime Lab., Kanagawa Pref. Police H.Q.^{*1}, Dept. of Forensic Med., Tokai Univ., School of Med.^{*2}, Transdisciplinary Research Organization, Subtropical and Island Studies, Univ. of the Ryukyu^{*3})

10:35 - 11:30

Chairperson: K. Sekiguchi (National Research Inst. of Police Sci.)

A-31 Study of automated identification system on human DNA Typing

K. Takahashi, K. Satoh, C. Nishida, K. Terao, T. Yoshii (Criminal Invest. Lab., Metropolitan Police Dept.)

A-32 Examination of the quick and convenient DNA type appraisal method by the direct PCR

M. Senma, M. Hayashida, T. Ohta, K. Masumi, S. Murata, K. Kinoshita (School of Pharmaceutical Sciences, Mukogawa Womens's Univ.)

A-33 Evaluation of Cycleave PCR[®] Meat Species Identification Kit for Forensic Samples

T. Ono, N. Mori, H. Yasuoka, Y. Tomisaka, E. Nishi (Criminal Invest. Lab., Oita Pref. Police H.Q.)

A-34 Discrimination of plant species based on sequence variation of nuclear internal transcribed spacer regions of ribosomal DNA in samples contaminated by fungi

S. Masuzaki^{*1}, A. Yano^{*1}, N. Araki^{*1}, N. Masamura^{*2}, M. Shigyo^{*3} (Forensic Sci. Lab., Yamaguchi Pref. Police H.Q.^{*1}, House Food Co. Ltd.^{*2}, Faculty of Agriculture., Yamaguchi Univ.^{*3})

A-35 Identification of Cannabis using THCA synthase gene

M. Kitamura^{*1}, T. Saito^{*2}, J. Tanaka^{*1}, S. Chinaka^{*1}, N. Takayama^{*1} (Forensic Sci. Lab., Ishikawa Pref. Police H.Q.^{*1}, Forensic Sci. Lab., Toyama Pref. Police H.Q.^{*2})

Forensic Toxicology (B)

Friday 13th

Hall II

08:45 - 09:18

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

B-01 Selective and concentrative solid phase extraction of phosphorus-containing amino acid herbicides from biological specimens by using Zirconia cartridge

D. Watanabe, H. Ohta, Y. Kazui, O. Ohtsuru (National Research Inst. of Police Sci.)

B-02 Analysis of phosphorus-containing amino acid-type herbicides by CE/ESI-TOF-MS

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

B-03 Analysis of phosphorus-containing amino acid-type herbicides by capillary electrophoresis-mass spectrometry

Y. Narita^{*1}, A. Watanabe^{*2} (Forensic Sci. Lab., Hokkaido Police Hakodate Regional H.Q.^{*1}, Forensic Sci. Lab., Hokkaido Police Kitami Regional H.Q.^{*2})

09:18 - 09:51

Chairperson: K. Kobayashi (Sci. Invest. Research Lab., Nagano Pref. Police H.Q.)

B-04 Determination of nicotine in whole blood by hydrophilic interaction chromatography/tandem mass spectrometry

M. Nakata, S. Yoshiyagawa (Forensic Sci. Lab., Hokkaido Kushiro Area Police H.Q.)

B-05 Analysis of hydrogen sulfide in whole blood using HS-GC/MS with cryogenic oven trapping

K. Otsuka, Y. Nozawa, H. Sekine (Criminal Invest. Lab., Saitama Pref. Police H.Q.)

B-06 Investigation on preservation of specimens containing mixed xylene consisting of ethylbenzene, o-, m-, and p-xylene

M. Yoshida^{*1}, A. Akane^{*1}, M. Katagi^{*2}, H. Tsuchihashi^{*2} (Dept. of Legal Med., Kansai Medical Univ.^{*1}, Forensic Sci. Lab., Osaka Pref. Police H.Q.^{*2})

09:56 - 10:29

Chairperson: T. Ohmori (National Research Inst. of Police Sci.)

B-07 Simultaneous determination of hypochlorite derivative and chlorate using electrophilic addition reaction by CE/ESI-TOF-MS

K. Wakigawa, A. Gohda, H. Mohri, H. Ikeda, S. Fukushima (Forensic Sci. Lab., Fukuoka Pref. Police H.Q.)

B-08 Identification of commercial lacrimator

K. Kanda, A. Funatsuki, H. Toda, T. Ogura (Forensic Sci. Lab., Mie Pref. Police H.Q.)

B-09 Evaluation of performance of on-site chemical warfare agent detection equipment 4

S. Kishi^{*1}, S. Yamaguchi^{*2}, M. Kanamori-Kataoka^{*1}, K. Tsuge^{*1}, I. Ohsawa^{*1}, T. Ohmori^{*1}, Y. Seto^{*1} (National Research Inst. of Police Sci.^{*1}, Metropolitan Police Dept.^{*2})

10:29 - 11:02

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

B-10 Capillary electrophoresis/mass spectrometry using chemically modified capillary – Chiral analysis of methamphetamine and related compounds –

Y. Iwamuro^{*1}, R. Iio-Ishimaru^{*1}, S. Chinaka^{*1}, N. Takayama^{*1}, S. Kodama^{*2}, K. Hayakawa^{*3} (Forensic Sci. Lab., Ishikawa Pref. Police H.Q.^{*1}, Toyama Inst. of Health^{*2}, Inst. of Med., Pharm. and Health Sci., Kanazawa Univ.^{*3})

B-11 Determination of antidepressants by non-aqueous capillary electrophoresis (3)

Y. Sasajima, K. Suenami, K. Sato, Y. Takekoshi (Criminal Invest. Lab., Gifu Pref. Police H.Q.)

B-12 A study on analysis of natural product by capillary electrophoresis

O. Takashima (Scientific Crime Lab., Tottori Pref. Police H.Q.)

11:07 - 11:40

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

B-13 General unknown screening by LC-TOF-MS

S. Ito^{*1}, Y. Narita^{*2}, Y. Adachi^{*3} (Forensic Sci. Lab., Yamagata Pref. Police H.Q.^{*1}, Forensic Sci. Lab., Hokkaido Police Hakodate Regional H.Q.^{*2}, Forensic Sci. Lab., Hokkaido Police Asahikawa Regional H.Q.^{*3})

B-14 General unknown screening by LC-LIT-MS

Y. Adachi^{*1}, M. Mori^{*2}, K. Kanazawa^{*3}, K. Kanda^{*4} (Forensic Sci. Lab., Hokkaido Police Asahikawa Regional H.Q.^{*1}, Forensic Sci. Lab., Aomori Pref. Police H.Q.^{*2}, Forensic Sci. Lab., Saitama Pref. Police H.Q.^{*3}, Forensic Sci. Lab., Mie Pref. Police H.Q.^{*4})

B-15 Development of LC/Q-TOF-MS drug screening method using retention time-exact mass database

M. Takino^{*1}, M. Hayashida^{*2}, K. Kudo^{*3}, M. Terada^{*4}, E. Kurisaki^{*5}, Y. Ohno^{*2} (Agilent Technologies^{*1}, Dept. Legal Med., Nippon Med. Sch.^{*2}, Grad. Sch. Med. Sci., Kyushu Univ.^{*3}, Dept. Legal Med., Toho Univ.^{*4}, Dept. Legal Med., Fukushima Med. Univ. Sch. Med.^{*5})

14:15 - 14:48 *Chairperson: R. Miyamoto (Criminal Invest. Lab., Metropolitan Police Dept.)*

B-16 Derivatization and analysis of methamphetamine and amphetamine in urine using NeedleXTM

M. Kawabata^{*1}, M. Kirihara^{*1}, E. Norimine^{*1}, F. Ishizawa^{*1}, H. Matsuura^{*2} (Forensic Sci. Lab., Ibaraki Pref. Police H.Q.^{*1}, Shinwa Chemical Industries LTD.^{*2})

B-17 Profiling of methamphetamine by gas chromatography-stable isotope ratio analysis

Y. T. Iwata, K. Tsujikawa, H. Miyaguchi, H. Inoue (National Research Inst. of Police Sci.)

B-18 Analysis of *p*-substituted methamphetamines

M. Taniguchi^{*1,*2}, S. Matsuyama^{*1,*2}, Y. Yamamoto^{*2,*3}, K. Nishi^{*2} (Forensic Sci. Lab., Shiga Pref. Police H.Q.^{*1}, Dept. of Legal Med., Shiga Univ. of Med. Sci.^{*2}, Lab. of Environ. Chem., Iga Res. Inst. of Mie Univ.^{*3})

14:48 - 15:21 *Chairperson: T. Kanamori (Forensic Sci. Lab., Tochigi Pref. Police H.Q.)*

B-19 Analyses of the novel hallucinogenic (benzodifuranyl) aminoalkanes

K. Zaitso, M. Katagi, H. Kamata, K. Nakanishi, N. Shima, T. Kamata, H. Nishioka, A. Miki, M. Tatsuno, H. Tsuchihashi (Forensic Sci. Lab., Osaka Pref. Police H.Q.)

B-20 Synthesis of 4-fluoroamphetamine metabolites

A. Ishiba, T. Matsumoto (Criminal Invest. Lab., Aichi Pref. Police H.Q.)

B-21 Analysis of diphenhydramine using molecularly imprinted technique

S. Hazama, K. Abe, K. Sasaki, T. Sasaki (Forensic Sci. Lab., Hokkaido Pref. Police H.Q.)

15:26 - 16:10 *Chairperson: M. Hasegawa (Criminal Invest. Lab., Shimane Pref. Police H.Q.)*

B-22 Evaluation of extraction methods for hypnotics and their metabolites in urine and blood

K. Nakanishi, K. Zaitso, N. Shima, H. Kamata, T. Kamata, H. Nishioka, M. Katagi, A. Miki, M. Tatsuno, H. Tsuchihashi (Forensic Sci. Lab., Osaka Pref. Police H.Q.)

B-23 Analysis of abortifacient drugs by LC-MS/MS

T. Shibayama, K. Suga, M. Kumihashi (Forensic Sci. Lab., Kagawa Pref. Police H.Q.)

B-24 Stir bar sorptive extraction method of THC metabolite from urine sample

Y. Goto^{*1,*2}, T. Araki^{*1}, T. Fuchigami^{*1}, K. Arizono^{*2} (Forensic Sci. Lab., Kumamoto Pref. Police H.Q.^{*1}, Faculty of Environmental and Symbiotic Sci., Kumamoto Pref. Univ.^{*2})

B-25 An analytical study of cannabis metabolite in human urine

A. Sato, S. Tomiya, Y. Yamazaki (Japan Coast Guard Research Center)

16:15 - 16:48 *Chairperson: A. Miki (Forensic Sci. Lab., Osaka Pref. Police H.Q.)*

B-26 Analysis of abused drug tablets using surface enhanced Raman spectrometry with silver nanoparticles

- Y. Nishiwaki^{*1}, H. Hasegawa^{*1}, M. Mizuhata^{*2} (Forensic Sci. Lab., Hyogo Pref. Police H.Q.^{*1}, Graduate School of Engineering, Kobe Univ.^{*2})
- B-27 Analysis of phenethylamine in biological fluid by Dielectric Barrier Discharge ionization Mass Spectrometry
H. Furuya^{*1}, K. Takekawa^{*1}, N. Nakazawa^{*1}, A. Mochizuki^{*1}, Y. Hashimoto^{*2}, L. C. Chen^{*2}, K. Hiraoka^{*2} (Forensic Sci. Lab., Yamanashi Pref. Police H.Q.^{*1}, Yamanashi Univ.^{*2})
- B-28 Screening of ecstasy tablets by direct mass spectrometry
H. Inoue^{*1}, H. Hashimoto^{*2}, S. Watanabe^{*2}, M. Yamada^{*3}, K. Tsujikawa^{*1}, H. Miyaguchi^{*1}, Y. T. Iwata^{*1} (National Research Inst. of Police Sci.^{*1}, Hitachi High-Tech Control Systems Corp.^{*2}, Hitachi High-Technologies Corp.^{*3})

Forensic Chemistry (C)

Thursday 12th Hall II

09:00 - 09:33

Chairperson: T. Shibayama (Forensic Sci. Lab., Kagawa Pref. Police H.Q.)

- C-01 Discrimination of processed human hairs for wigs by ICP-MS
N. Tachiiri, K. Saito, S. Hatakeyama, S. Sasaoka, T. Takaki, K. Miura (Forensic Sci. Lab. Miyagi Pref. Police H.Q.)
- C-02 New discrimination method of minute green paint chips by elemental analysis using SEM/EDX
T. Mukai, S. Murata, M. Kusatani, S. Nakai, S. Honda (Forensic Sci. Lab. Nara Pref. Police H.Q.)
- C-03 Non-destructive discrimination of black ink using microspectroscopy
A. Nagasaka, I. Nakai (Tokyo University of Science)

09:45 - 10:18

Chairperson: T. Goto (Forensic Sci. Lab., Shizuoka Pref. Police H.Q.)

- C-04 Analysis of alloy by X-ray diffractometer
T. Sakai, M. Taniguchi, H. Iida, M. Hata, K. Sasaki (Forensic Sci. Lab., Hokkaido Pref. Police H.Q.)
- C-05 Analysis of papers for plain paper copier by X-ray diffractometry
H. Satoh, M. Hida (Criminal Invest. Lab., Aichi Pref. Police H.Q.)
- C-06 Discrimination of glasses of car lamps by wavelength dispersive X-ray fluorescence analysis and synchrotron radiation X-ray fluorescence analysis
T. Yoshida^{*1}, K. Miyata^{*1}, S. Suzuki^{*2}, T. Yaita^{*2} (Scientific Criminal Invest. Lab., Ibaraki Pref. Police H.Q.^{*1}, Japan Atomic Energy Agency^{*2})

10:30 - 11:03

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

- C-07 Discrimination of transparent polyethylene films based on identification of inorganic antiblocking agents
T. Hashimoto^{*1}, M. Mizuhata^{*2} (Forensic Sci. Lab., Hyogo Pref. Police H.Q.^{*1}, Graduate School of Engineering, Kobe Univ.^{*2})
- C-08 Forensic application of portable analytical instruments (1) Handheld X-ray fluorescence analyzer
I. Nakai^{*1}, A. Otaka^{*1}, Y. Abe^{*1}, T. Nogami^{*2} (Department of Applied Chemistry, Faculty of Science, Tokyo University of Science^{*1}, Rigaku Corporation^{*2})
- C-09 Forensic application of portable analytical instruments (2) Raman spectrometer and X-ray powder diffractometer

Y. Abe, A. Nagasaka, I. Nakai (Department of Applied Chemistry, Faculty of Science, Tokyo University of Science)

13:30 - 14:14

Chairperson: S. Itoh (Forensic Sci. Lab., Yamagata Pref. Police H.Q.)

C-10 Organic compounds analysis in solid sample using “Curie Point Injector”

T. Kaneko^{*1}, H. Nojima^{*1}, Y. Suzuki^{*1}, Y. Hanzawa^{*2}, M. Nakada^{*2} (Forensic Science Lab., Chiba Pref. Police H.Q.^{*1}, Chiba Institute of Technology^{*2})

C-11 Comparison study of microextraction techniques (V)

H. Nojima, Y. Suzuki, A. Kohiyama, M. Sato, T. Kaneko (Forensic Sci. Lab., Chiba Pref. Police H.Q.)

C-12 Rapid analysis of small molecules with nano-assisted laser desorption/ionization - mass spectrometry

H. Ohta, D. Watanabe, Y. Kazui, O. Ohtsuru (National Research Inst. of Police Sci.)

C-13 Study of analytical method for phosgene

A. Funatsuki^{*1}, K. Kanda^{*1}, D. Kokubu^{*1}, S. kishi^{*2}, K. Tsuge^{*2}, T. Omori^{*2}, Y. Seto^{*2} (Forensic Sci. Lab., Mie Pref. Police H.Q.^{*1}, National Research Inst. of Police Sci.^{*2})

14:25 - 14:58

Chairperson: H. Nojima (Forensic Sci. Lab., Chiba Pref. Police H.Q.)

C-14 The difference identification of cigarette by GC/MS (II)

T. Nakamura, K. Nanjo, K. Aoyama (Analysis Center, Hokkaido Kantei Co.,Ltd.)

C-15 Analysis of rubber by thermal desorption, pyrolysis-GC/MS

T. Aoki, H. Oikawa (Science Crime Detection Lab. Iwate Pref. Police H.Q.)

C-16 Discrimination of vinyl polymers with styrene and styrene derivatives unit by evolved gas analysis (EGA) – MS using Pyrolysis-GC/MS

A. Hosaka^{*1}, C. Watanabe^{*1}, S. Tsuge^{*2} (Frontier Laboratories Ltd.^{*1}, Nagoya University^{*2})

15:30 - 16:14

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

C-17 Analysis of oils using MonoTrap™

S. Sugiyama, T. Sato (Forensic Sci. Lab., Fukushima Pref. Police H.Q.)

C-18 Discrimination analysis of diesel fuel and fuel oil (type A) using gas-chromatograph and infrared spectrometer

M. Taki, T. Asahara, A. Kurisu, T. Uno (Japan Coast Guard Research Center)

C-19 Behavior of gasoline in water

S. Wada, T. Ichiyama (Forensic Sci. Lab., Yamaguchi Pref. Police H.Q.)

C-20 Forensic study on automotive gasoline

S. Watanabe (Forensic Sci. Lab., Hyogo Pref. Police H.Q.)

16:25 - 17:09

Chairperson: S. Sugiyama (Forensic Sci. Lab., Fukushima Pref. Police H.Q.)

C-21 The analysis of bio-diesel fuel (BDF)

E. Norimine^{*1}, F. Ishizawa^{*1}, K. Honda^{*2} (Forensic Sci. Lab., Ibaraki Pref. Police H.Q.^{*1}, Dept. of Legal Med., Tsukuba Univ.^{*2})

C-22 Detection and determination of biodiesel at fire field

Y. Kaneko, N. Kawamoto, Y. Watanabe, Y. Murahama, K. Tateno, T. Sato, Y. Konayashi (Analysis Center Co.,Ltd.)

C-23 GC/MS analysis of heated kerosene collected under fire stages

H. Suzuki (Bell Associates Ltd.)

C-24 A study on depth profiles of remaining kerosene in wood fire residues

Y. Kobayashi*¹, N. Kawamoto*¹, Y. Kaneko*¹, T. Sato*¹, F. Hatamoto*², M. Asari*² (Analysis Center Co., Ltd.*¹, Comprehensive Marine Technical Inc.*²)

Friday 13th Hall I

14:15 - 14:48

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

C-25 Analysis of fabric softener sheets

T. Sano, S. Kogure, T. Iwamoto (Forensic Sci. Lab. Chiba Pref. Police H.Q.)

C-26 Studies on chemical composition of soils – Discrimination of soils comprised of Shirasu (pyroclastic flow deposit) by chemical compositions –

K. Nagahama*¹, T. Tomiyasu*² (Forensic Sci. Lab., Kagoshima Pref. Police H.Q.*¹, Graduate School of Science and Engineering, Kagoshima Univ.*²)

C-27 Discrimination of craft tapes by two-dimensional Fourier transform (2)

S. Sasaoka*¹, K. Saito*¹, T. Aoki*², S. Ito*³, S. Hatakeyama*¹, N. Tachiiri*¹, K. Miura*¹ (Forensic Sci. Lab., Miyagi Pref. Police H.Q.*¹, Forensic Sci. Lab., Iwate Pref. Police H.Q.*², Forensic Sci. Lab., Yamagata Pref. Police H.Q.*³)

15:00 - 15:33

Chairperson: M. Sakayanagi (Forensic Sci. Lab., Kanagawa Pref. Police H.Q.)

C-28 Development of quantitative analysis for trace elements in wheat flour by X-ray fluorescence spectrometer for the identification of their production area

A. Otaka*¹, Y. Yanada*¹, A. Hokura*², K. Matsuda*³, I. Nakai*¹ (Department of Applied Chemistry, Faculty of Science, Tokyo University of Science*¹, Department of Green & Sustainable Chemistry, Faculty of Engineering, Tokyo Denki University*², PANalytical Division, Spectris Corporation*³)

C-29 Discrimination of grass hay by DNA analyses

H. Kikkawa, R. Sugita, S. Suzuki (National Research Inst. of Police Sci.)

C-30 Discrimination of pollen by scanning electron microscope

R. Sugita, H. Kikkawa, S. Suzuki (National Research Inst. of Police Sci.)

Forensic Engineering (D)

Fire Investigation

Thursday 12th Hall III

09:00 - 09:55

Chairperson: K. Kamiya (Japan Specialist in Law Engineering Corporation)

D-01 Analysis of fuel mixtures of gasoline and kerosene

T. Goto*¹, K. Nishidate*², J. Matsuda*³, S. Sugiyama*⁴, K. Miwa*⁵, K. Okamoto*⁵, M. Honma*⁵, N. Watanabe*⁵, H. Yoshida*⁵, Y. Hagimoto*⁵ (Forensic Sci. Lab., Shizuoka Pref. Police H.Q.*¹, Forensic Sci. Lab., Hokkaido Pref. Police H.Q.*², Forensic Sci. Lab., Miyagi Pref. Police H.Q.*³, Forensic Sci. Lab., Fukushima Pref. Police H.Q.*⁴, National Research Inst. of Police Sci.*⁵)

D-02 Evaporation characteristics of fuel mixtures of gasoline and kerosene (Part I)

J. Matsuda*¹, K. Nishidate*², S. Sugiyama*³, T. Goto*⁴, H. Yoshida*⁵, K. Miwa*⁵, K. Okamoto*⁵, M.

Honma^{*5}, N. Watanabe^{*5}, Y. Hagimoto^{*5} (Forensic Sci. Lab., Miyagi Pref. Police H.Q.^{*1}, Forensic Sci. Lab., Hokkaido Pref. Police H.Q.^{*2}, Forensic Sci. Lab., Fukushima Pref. Police H.Q.^{*3}, Forensic Sci. Lab., Shizuoka Pref. Police H.Q.^{*4}, National Research Inst. of Police Sci.^{*5})

D-03 Evaporation characteristics of fuel mixtures of gasoline and kerosene (Part II)

K. Okamoto^{*1}, K. Nishidate^{*2}, J. Matsuda^{*3}, S. Sugiyama^{*4}, T. Goto^{*5}, H. Yoshida^{*1}, K. Miwa^{*1}, M. Honma^{*1}, N. Watanabe^{*1}, Y. Hagimoto^{*1} (National Research Inst. of Police Sci.^{*1}, Forensic Sci. Lab., Hokkaido Pref. Police H.Q.^{*2}, Forensic Sci. Lab., Miyagi Pref. Police H.Q.^{*3}, Forensic Sci. Lab., Fukushima Pref. Police H.Q.^{*4}, Forensic Sci. Lab., Shizuoka Pref. Police H.Q.^{*5})

D-04 Evaporation and diffusion behavior of fuel mixtures of gasoline and kerosene

K. Nishidate^{*1}, J. Matsuda^{*2}, S. Sugiyama^{*3}, T. Goto^{*4}, H. Yoshida^{*5}, K. Miwa^{*5}, K. Okamoto^{*5}, M. Honma^{*5}, N. Watanabe^{*5}, Y. Hagimoto^{*5} (Forensic Sci. Lab., Hokkaido Pref. Police H.Q.^{*1}, Forensic Sci. Lab., Miyagi Pref. Police H.Q.^{*2}, Forensic Sci. Lab., Fukushima Pref. Police H.Q.^{*3}, Forensic Sci. Lab., Shizuoka Pref. Police H.Q.^{*4}, National Research Inst. of Police Sci.^{*5})

D-04

D-05 Scale effects in the flammable layer formation and explosion phenomenon caused by the spilt gasoline in closed vessels

N. Watanabe^{*1}, S. Matsui^{*2}, K. Sato^{*3} (National Research Inst. of Police Sci.^{*1}, Toho Univ. (Yamato Protec Corporation)^{*2}, Toho Univ.^{*3})

10:05 - 11:00

Chairperson: K. Nishidate (Forensic Sci. Lab., Hokkaido Pref. Police H.Q.)

D-06 Detection of kerosene and gasoline odor from fire debris extinguished by water

K. Kamiya^{*1}, O. Sugawa^{*2}, T. Imamura^{*2} (Japan Specialist in Law Engineering Corporation^{*1}, Tokyo University of Science, Suwa^{*2})

D-07 Case study on expansion of cartridge oil tank for radiating type kerosene heater in fire scene

Y. Ibata (Forensic Sci. Lab., Kumamoto Pref., Police H.Q.)

D-08 Fire aspects of wood in contact with ignited kerosene-soaked cloth.

T. Suwa^{*1}, K. Sato^{*2} (Criminal Invest. Lab., Saitama Pref. Police H.Q.^{*1}, Toho Univ.^{*2})

D-09 Application of computer simulation to car fires

K. Miwa^{*1}, K. Okamoto^{*1}, M. Honma^{*1}, N. Watanabe^{*1}, Y. Hagimoto^{*1}, H. Sato^{*2}, T. Suwa^{*3}, K. Kamiya^{*4}, O. Sugawa^{*5} (National Research Inst. of Police Sci.^{*1}, Forensic Sci. Lab., Chiba Pref. Police H.Q.^{*2}, Criminal Invest. Lab., Saitama Pref. Police H.Q.^{*3}, Japan Specialist in Law Engineering Corporation^{*4}, Tokyo Univ. of Sci., Suwa^{*5})

D-10 Reconstruction of fire scene using fire dynamic simulation

O. Sugawa^{*1}, K. Kamiya^{*2}, T. Imamura^{*2} (Tokyo University of Science, Suwa^{*1}, Japan Specialist in Law Engineering Corporation^{*2})

13:30 - 14:14

Chairperson: S. Kamihirata (Forensic Science Lab., Nara Pref. Police HQ.)

D-11 Arcing short on PVC-insulated cords in wiring ducts

Y. Hagimoto, N. Watanabe, K. Okamoto, K. Miwa, M. Honma (National Research Inst. of Police Sci.)

D-12 A study on the operation of circuit breaker in fire scenes

M. Fukuma (Criminal Invest. Lab., Shimane Pref. Police H.Q.)

D-13 Case of copper diffusion in burnt electrical appliances using lead-free solder

T. Ono, T. Fujiwara (Criminal Invest. Lab., Okayama Pref. Police H.Q.)

D-14 Investigation of the cause of the fire by surface color observation of hydraulic pump bearings seized

H. Yoshida^{*1}, K. Oonishi^{*2}, Y. Ogasawara^{*1}, Y. Goto^{*3}, N. Shimada^{*1}, F. Mizuguchi^{*1} (Japan Coast Guard Academy^{*1}, Niigata Coast Guard Office^{*2}, Shimoda Coast Guard Office^{*3})

14:24 - 14:57

Chairperson: J. Matsuda (Forensic Sci. Lab., Miyagi Pref. Police H.Q.)

D-15 Observation of discharge traces on fiber by focus stacking of optical microscope images

T. Kimura (Criminal Invest. Lab., Aichi Pref. Police H.Q.)

D-16 On the destruction behavior of electronic devices by impulse voltage (2)

H. Yamamoto^{*1}, R. Hanaoka^{*2}, S. Takata^{*2} (Forensic Sci. Lab. Ishikawa Pref. Police H.Q.^{*1}, Kanazawa Institute of Technology^{*2})

D-17 Malfunction of electronic equipment by internal state synchronous noise

K. Kuroki, K. Kurosawa, N. Akiba, K. Tsuchiya (National Research Inst. of Police Sci.)

Explosion

Thursday 12th Hall III

15:07 - 15:40

Chairperson: T. Ono (Criminal Invest. Lab., Okayama Pref. Police H.Q.)

D-18 Influence of closed box on blast wave

H. Arai, R. I. Hiyoshi (National Research Inst. of Police Sci.)

D-19 Hazard of propelled glass fragments

M. Kudo, I. Abe, M. Kazama (Criminal Invest. Lab., Metropolitan Police Dept.)

D-20 Composition analysis and detonation test of emulsion explosives

I. Abe, M. Kazama, M. Kudo (Criminal Invest. Lab., Metropolitan Police Dept.)

Speech and Acoustics

Thursday 12th Hall III

15:50 - 16:23

Chairperson: T. Osanai (National Research Inst. of Police Sci.)

D-21 Speaker recognition experiments using modified MFCC feature obtained by emphasizing specific frequency band

H. Makinae, T. Kamada, T. Osanai (National Research Inst. of Police Sci.)

D-22 A speaker verification method using likelihood ratio

K. Shinomiya^{*1}, H. Makinae^{*2}, T. Kamada^{*2}, T. Osanai^{*2} (Criminal Invest. Lab., Hyogo Prefectural Police H.Q.^{*1}, National Research Inst. of Police Sci.^{*2})

D-23 The examination of speaker verification by overlap ratio of formant

T. Yazaki (Criminal Invest. Lab., Aichi Pref. Police H.Q.)

16:28 - 16:50

Chairperson: K. Shinomiya (Criminal Invest. Lab., Hyogo Prefectural Police H.Q.)

D-24 A study for residence information of speaker in speaker recognition

T. Kamada, T. Osanai, H. Makinae (National Research Inst. of Police Sci.)

D-25 Consideration about speaker models for text-independent speaker verification and the amount of data for the model learning

T. Osanai, T. Kamada, H. Makinae (National Research Inst. of Police Sci.)

Firearms

Thursday 12th Hall IV

09:00 - 09:44

Chairperson: K. Shibasaki (Forensic Sci. Lab., Chiba Pref. Police H.Q.)

D-26 A study on the damage of electric wire and cable by shotgun

M. Ohno, Y. Kuchimoto, K. Goto (Forensic Sci. Lab., Miyazaki Pref. Police H.Q.)

D-27 Estimation of the type of guns with the morphology of the penetrated hole in the plastic plate by bullet impact

A. Hirashima, A. Miyamoto, Y. Nishijima, H. Takeshita, K. Toyama (Forensic Sci. Lab., Fukuoka Pref. Police H.Q.)

D-28 Identification based on position and size of firing pin and firing pin aperture marking from Makarov

T. Nitobe, T. Uchiyama (National Research Inst. of Police Sci.)

D-29 Origin of markings on fired bullets and their reproducibility

T. Uchiyama (National Research Inst. of Police Sci.)

09:54 - 10:27

Chairperson: M. Ohno (Forensic Sci. Lab., Miyazaki Pref. Police H.Q.)

D-30 Loading of 9mm Luger ammunition into .38 special revolver

M. Nagai (National Research Inst. of Police Sci.)

D-31 Variation of bullet velocity through board wood

N. Maeta, H. Kato (Scientific Crime Lab., Tottori Pref Police H.Q.)

D-32 Examination of power source for toy guns (2)

K. Shibasaki (Forensic Sci. Lab., Chiba Pref. Police H.Q.)

Mechanical Engineering

Friday 13th Hall III

08:40 - 09:13

Chairperson: T. Harama (Forensic Sci. Lab. Shizuoka Pref. Police H.Q.)

D-33 The meaning of Fatigue limit

K. Furukawa (National Research Inst. of Police Sci.)

D-34 Measurement and estimation of impulsive force by load cell

T. Ogura^{*1}, H. Toda^{*1}, T. Kimura^{*2}, M. Matsui^{*2}, Y. Itoh^{*3}, T. Nemoto^{*3} (Forensic Sci. Lab., Mie Pref., Police H.Q.^{*1}, Criminal Investigation Lab., Aichi Pref., Police H.Q.^{*2}, National Institute for Longevity Sciences^{*3})

D-35 Problems and countermeasures in measurement and evaluation of impact force which a human body receives - Impact-absorbing Characteristic Evaluation of Organism Soft Tissue and Buffer Material -

Y. Ito^{*1}, T. Ogura^{*2}, H. Toda^{*2}, T. Kimura^{*3}, M. Matsui^{*3}, T. Tetsuya^{*3}, H. Matsuura^{*1} (National Institute for Longevity Sciences^{*1}, Forensic Sci. Lab., Mie Pref. Police H. Q.^{*2}, Criminal Invest. Lab., Aichi Pref. Police H. Q.^{*3})

09:18 - 10:02

Chairperson: K. Furukawa (National Research Inst. of Police Sci.)

D-36 Effect of the restoration of an obliterated letters on metal by electrolytic-polishing method

T. Harama, K. Kurata (Forensic Sci. Lab. Shizuoka Pref. Police H.Q.)

D-37 Examination of toolmark identification by 3-D measurement

M. Ishii, K. Furukawa (National Research Inst. of Police Sci.)

D-38 Physical considerations and cases of bloodstain pattern analysis

Young-II Seo, Eui-Soo Kim, Byung-Sun Moon, Young-Jin Cho, Nam-Kyu Park (National Institute of Scientific Investigation, South Korea)

D-39 A study on identification of tool mark using statistical method

Eui-Soo Kim, Young-II Seo, Byung-Sun Moon, Nam-Kyu Park (National Institute of Scientific Investigation, South Korea)

Image Processing

Friday 13th Hall III

10:12 - 10:56

Chairperson: K. Kuroki (National Research Inst. of Police Sci.)

D-40 Restoring out-of-focus JPEG image

K. Kadono^{*1}, K. Fujita^{*2}, Y. Kida^{*1} (Forensic Science Laboratory, Shiga Prefectural Police^{*1}, Ryukoku Univ.^{*2})

D-41 Enhancement of cloth stain by using sparse coding

S. Oketani^{*1,*2}, K. Fujita^{*3}, N. Nakamori^{*2}, K. Morimoto^{*2}, R. Sugawa^{*2} (Kyoto Prefectural Technology Center^{*1}, Kyoto Institute of Technology^{*2}, Ryukoku Univ.^{*3})

D-42 Image enhancement of cloth-stain by independent component analysis

K. Fujita^{*1}, S. Oketani^{*2,*3}, N. Nakamori^{*3}, K. Morimoto^{*3} (Ryukoku Univ.^{*1}, Kyoto Prefectural Technology Center^{*2}, Kyoto Institute of Technology^{*3})

D-43 Image enhancement of cloth stain by reducing texture component

R. Sugawa^{*1}, K. Fujita^{*1}, S. Oketani^{*2,*3}, N. Nakamori^{*3}, K. Morimoto^{*3} (Ryukoku Univ.^{*1}, Kyoto Prefectural Technology Center for Small and Medium Enterprises^{*2}, Kyoto Institute of Technology^{*3})

11:01 - 11:45

Chairperson: T. Ogura (Forensic Science Lab. Mie Pref. Police)

D-44 Moment feature selection in identification number of car license plate in the case of low resolution

T. Hrata, K. Fujita (Ryukoku Univ.)

D-45 Basic study on super-resolution image processing techniques for forensic image analyses

K. Kurosawa, K. Tsuchiya, K. Kuroki, N. Akiba (National Research Inst. of Police Sci.)

D-46 Analytical measuring from a known circle object

S. Mizuta (Research Institute. Scientific Crime Invest. Lab., Fukui Pref. Police H.Q.)

D-47 Study on visualization of radiation field 1 – Evaluation for personal dosimeter and semiconductor devices under high-dose-rate irradiation

K. Tsuchiya^{*1}, K. Kuroki^{*1}, N. Akiba^{*1}, K. Kurosawa^{*1}, T. Matsumoto^{*2}, J. Nishiyama^{*2}, H. Harano^{*2} (National Research Inst. of Police Sci.^{*1}, National Inst. of Advanced Industrial Sci. and Technology^{*2})

Traffic Accidents

Friday 13th Hall III

14:15 ~ 14:59

Chairperson: J. Morishita (Forensic Science Lab. Hyogo Pref. Police)

D-48 Engine brake performance of motorcycle

H. Toda^{*1}, T. Ogura^{*1}, T. Itou^{*2}, K. Isowa^{*2}, T. Okuno^{*3}, R. Oga^{*3} (Forensic Sci. Lab., Mie Pref. Police H.Q.^{*1}, Traffic Enforcement Div., Mie Pref. Police H.Q.^{*2}, National Research Inst. of Police Sci.^{*3})

- D-49 On the friction coefficient in winter road surface
H. Kawato^{*1}, H. Oyu^{*2}, S. Sasaki^{*1} (Scientific Invest. Lab., Aomori Pref. Police H.Q.^{*1}, Traffic Invest. Div., Aomori Pref. Police H.Q.^{*2})
- D-50 Curved tire marks and coefficient of friction about ABS vehicles
H. Yamamoto^{*1}, Y. Kokubun^{*1}, J. Matsumoto^{*1}, S. Tanaka^{*1}, M. Matumoto^{*2}, H. Nakajima^{*2}, S. Yamazaki^{*3} (Scientific Crime Invest. Lab., Kanagawa Pref. Police H.Q.^{*1}, Traffic Invest. Div., Kanagawa Pref. Police H.Q.^{*2}, Intelligent Vehicle Research Institute^{*3})
- D-51 Study for a reaction of driver's risk aversion while driving a vehicle and the vehicle movement
K. Taneda (Automobile traffic accident analysis science laboratory)

15:04 ~ 15:48

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

- D-52 Analysis of high-speed collision into a rigid pole
Y. Motomiya^{*1}, K. Suzuki^{*2}, K. Miyao^{*3}, S. Kamihirata^{*4}, T. Ono^{*5}, H. Ishikawa^{*6}, N. Takubo^{*6}, K. Hagita^{*6}, R. Oga^{*6}, K. Kato^{*6}, T. Okuno^{*6} (Forensic Sci. Lab., Niigata Pref. Police H.Q.^{*1}, Forensic Sci. Lab., Hokkaido Pref. Police H.Q.^{*2}, Forensic Sci. Lab., Nagano Pref. Police H.Q.^{*3}, Forensic Sci. Lab., Nara Pref. Police H.Q.^{*4}, Criminal Invest. Lab., Okayama Pref. Police H.Q.^{*5}, National Research Inst. of Police Sci.^{*6})
- D-53 Analysis of multiplex rear-end collision accident in real car crash test
S. Hirakawa^{*1}, H. Tohyama^{*2}, M. Nakamura^{*3}, K. Nakano^{*4}, H. Takeshita^{*5}, N. Takubo^{*6}, K. Hagita^{*6}, R. Oga^{*6}, K. Kato^{*6}, T. Okuno^{*6}, H. Ishikawa^{*6} (Forensic Sci. Lab., Nagasaki Pref. Police H.Q.^{*1}, Scientific Invest. Lab., Akita Pref. Police H.Q.^{*2}, Scientific Invest. Lab., Fukushima Pref. Police H.Q.^{*3}, Criminal Invest. Lab., Gifu Pref. Police H.Q.^{*4}, Forensic Sci. Lab., Fukuoka Pref. Police H.Q.^{*5}, National Research Inst. of Police Sci.^{*6})
- D-54 Analysis of rear side collision accident of angle in real car crash test
S. Tanaka^{*1}, S. Kato^{*2}, T. Kodama^{*3}, J. Morishita^{*4}, K. Goto^{*5}, N. Takubo^{*6}, K. Hagita^{*6}, R. Oga^{*6}, K. Kato^{*6}, T. Okuno^{*6}, H. Ishikawa^{*6} (Scientific Criminal Invest. Lab., Kanagawa Pref. Police H.Q.^{*1}, Criminal Invest. Lab., Saitama Pref. Police H.Q.^{*2}, Forensic Sci. Lab., Osaka Pref. Police H.Q.^{*3}, Forensic Sci. Lab., Hyogo Pref. Police H.Q.^{*4}, Forensic Sci. Lab., Miyazaki Pref. Police H.Q.^{*5}, National Research Inst. of Police Sci.^{*6})
- D-55 Study on basic characteristics of event data recorder (EDR) using crash test data
N. Takubo, H. Ishikawa, T. Okuno, K. Kato, K. Hagita, R. Oga (National Research Inst. of Police Sci.)

15:53 ~ 16:37

Chairperson: N. Takubo (National Research Inst. of Police Sci.)

- D-56 Simulation analysis of car falling-down behavior
M. Sato (Forensic Sci. Lab., Yamaguchi Pref. Police H.Q.)
- D-57 Evaluation of the stored vehicle data in the Drive Recorder
J. Morishita, Y. Saito, E. Teratsuji, T. Fukawa, T. Okamoto (Forensic Sci. Lab., Hyogo Pref. Police H.Q.)
- D-58 The development of the analysis program of the videos of a traffic accident record with TAAMS
R. Oga, K. Hagita, N. Akiba (National Research Inst. of Police Sci.)
- D-59 An example of measurement using TAAMS images
T. Kumamoto (Criminal Invest. Lab., Aichi Pref. Police H.Q.)

Crime Scene Identification (E)

Thursday 12th Room

13:30 - 14:25

Chairperson: R. Iwamoto (Scientific Invest. Lab., Aomori Pref. Police H.Q.)

- E-01 Development of latent fingerprints using CW green laser : Pretreatment by physical vapor deposition with fluorescent dye
K. Hibino*¹, T. Abe*¹, M. Gokita*¹, T. Morita*¹, M. Ito*¹, S. Takeuchi*², O. Shimoda*³, M. Takatsu*³, N. Akiba*⁴, K. Kuroki*⁴ (Identification Div., National Police Agency*¹, Criminal Invest. Lab., Gifu Pref. Police H.Q.*² Forensic Sci. Lab., Hyogo Pref. Police H.Q.*³ National Research Inst. of Police Sci.*⁴)
- E-02 A Study on the visualization of aging fingerprints with a laser
N. Akiba, K. Kuroki, K. Kurosawa, K. Tsuchiya (National Research Inst. of Police Sci.)
- E-03 Applications of time-resolved fluorescence techniques for forensic science
S. Takeuchi*¹, T. Fuwa*¹, K. Nakano*¹, N. Akiba*², K. Kuroki*², K. Hibino*³, T. Abe*³, M. Gokita*³, T. Morita*³, M. Ito*³ (Criminal Invest. Lab., Gifu Pref. Police H.Q.*¹, National Research Inst. of Police Sci.*², Identification Div., National Police Agency*³)
- E-04 Rapid fluorescent fingerprint detection from paper using dye sheet
H. Teranishi*¹, O. Shimoda*², M. Takatsu*² (Skyscience Co., Ltd. *¹, Forensic Sci. Lab., Hyogo Pref. Police H.Q.*²)
- E-05 The Development and Application of the Image Scanner for Detection of Latent Fingerprints by Fluorescence.
S. Ichinose*¹, Y. Kanesaka*¹, K. Ofusa*² (Imeasure Inc*¹, Towa Environment Science Co., Ltd.)

14:35 - 15:19

Chairperson: Y. Kamei (Identification Div., Wakayama Pref. Police H.Q.)

- E-06 The method of effective DNA typing from lifted fingerprints
E. Nishi*¹, T. Ono*¹, H. Yasuoka*¹, N. Mori*¹, Y. Tomisaka*¹, K. Kiyosue*², M. Satou*², K. Hibino*³, M. Itou*³, T. Morita*³ (Criminal Invest. Lab., Oita Pref. Police H.Q.*¹, Identification Div., Oita Pref. Police H.Q.*², Identification Div., National Police Agency*³)
- E-07 New Device for Taking Images for Forensic Dental Inspection
Y. Hanaoka*¹, T. Tsuzuki*², S. Maruyama*¹, K. Iwahara*², K. Minaguchi*¹ (Dept. of Forensic Odontology, Tokyo Dental College.*¹, Center of Forensic Dentistry, The Nippon Dental Univ., School of Life Dentistry at Tokyo *²)
- E-08 Evaluation of Sorbent for Collecting of Spilt Volatile-Oils Such as Gasoline Identified by Headspace Gas Chromatography-Mass Spectrometry in Forensic Science
S. Kurata, N. Aizawa (Criminal Invest. Lab., Metropolitan Police Dept.)
- E-09 Search activity of police dog using air scent.
R. Iwamoto*¹, M. Oyamada*², A. Imaruoka*³, H. Sato*⁴ (Scientific Invest. Lab., Aomori Pref. Police H.Q.*¹ Police dog school Oirase*², Aomori police station*³, Misawa police station*⁴)

15:30 - 16:14

Chairperson: T. Hara (Identification Div., Hiroshima Pref. Police H.Q.)

- E-10 Examination of effectiveness of height measurement that uses Vanishing Point (2)
K. Takezaki*¹, H. Tateishi*² (Identification Div., Okayama Pref. Police H.Q.*¹, Information

- Technology Center Tokai Univ.*²)
- E-11 Study of Personal Identification from an Image Sequence of Human Walking
H. Takei, I. kono (Identification Section, Tokyo Metropolitan Police Department)
- E-12 Development of EX-Sheet to lift footprints
T. Furuta*¹, Y. Kubota*² (Identification Div., Gifu Pref. Police H.Q.*¹, Gujo Police Station, Gifu Pref. Police*²)
- E-13 About tire pattern presumption from a skid mark
K. Azuma (Scientific Invest. Lab., Fukushima Pref. Police H.Q.)

Forensic Psychology (F)

Friday 13th Hall IV

14:15 - 15:10

Chairperson: K. Yokota (National Research Inst. of Police Sci.)

- F-01 Offender and crime characteristics in cases of extortion letters
Y. Otsuka, K. Watanabe, K. Yokota, T. Wachi (National Research Inst. of Police Sci.)
- F-02 A mathematical approach to the geographic profiling (1): An examination of distance-decay function with anisotropy
N. Hasegawa (Criminal Invest. Lab., Aichi Pref. Police H.Q.)
- F-03 The relationship between crime locations of spree offenses and offenders' base
A. Sato, H. Kawamura (Criminal Invest. Lab., Aichi Pref. Police H.Q.)
- F-04 A study of serial theft in a mountainous district
Y. Nagai (Criminal Invest. Lab., Shimane Pref. Police H.Q.)
- F-05 Relations between time and area characteristics in cases of urban purse-snatchings
T. Kasuya (Graduate School of Urban Environmental Sciences, Tokyo Metropolitan Univ.)

15:20 - 16:04

Chairperson: T. Suzuki (Scientific Crime Invest. Lab., Kanagawa Pref. Police H.Q.)

- F-06 Some aspects of the polygraph test on arson
N. Tsuji, R. Ikegaya (Forensic Sci. Lab., Hokkaido Pref. Police H.Q.)
- F-07 A survey on the police officer's opinions of the polygraph test
T. Tateuchi*¹, R. Suzuki*¹, N. Yamamoto*² (Criminal Invest. Lab., Chiba Pref. Police H.Q.*¹, Criminal Invest. Lab., Yamagata Pref. Police H.Q.*²)
- F-08 Effects of recognition of critical item on reaction time to following stimulus
Y. Shibuya (Scientific Crime Lab., Tottori Pref. Police H.Q.)
- F-09 The study of the respiratory inhibitions to the critical question in the CIT
N. Fukada (Scientific Invest. Lab., Fukushima Pref. Police H.Q.)

16:14 - 16:58

Chairperson: I. Matsuda (National Research Inst. of Police Sci.)

- F-10 The effects of cognitive set on the orienting skin conductance response to the verbal stimuli
T. Ohama, S. Ono (Forensic Sci. Lab., Yamaguchi Pref. Police H.Q.)
- F-11 Physiological changes within a sequence in the Concealed Information Test
T. Ogawa, I. Matsuda, A. Hirota (National Research Inst. of Police Sci.)
- F-12 The effect of false answer on indices of the peripheral nervous system in the CIT

M. Fujii^{*1}, T. Kobayashi^{*2}, T. Okuno^{*3}, S. Fujihara^{*2} (Criminal Invest. Lab., Gifu Pref. Police H.Q.^{*1}, Forensic Sci. Lab., Kyoto Pref. Police H.Q.^{*2}, Forensic Sci. Lab., Mie Pref. Police H.Q.^{*3})

F-13 The effect of verbal repetition on physiological responses in the CIT

S. Nakamura^{*1}, E. Ikeda^{*2}, A. Ishihara^{*3}, A. Osugi^{*4}, M. Ohtsu^{*5}, H. Suzuki^{*3}, S. Haginoya^{*6}, R. Hosoya^{*7}, R. Maehira^{*8}, H. Morioka^{*9} (Criminal Invest. Lab., Niigata Pref. Police H.Q.^{*1}, Japan Ground Self-Defense Force^{*2}, Criminal Invest. Lab., Metropolitan Police Dept.^{*3}, Forensic Sci. Lab., Hyogo Pref. Police H.Q.^{*4}, Forensic Sci. Lab., Kumamoto Pref. Police H.Q.^{*5}, Forensic Sci. Lab., Tochigi Pref. Police H.Q.^{*6}, Scientific Invest. Lab., Akita Pref. Police H.Q.^{*7}, Forensic Sci. Lab., Okinawa Pref. Police H.Q.^{*8}, Japan Maritime Self Defense Force^{*9})

Questioned Documents (G)

Thursday 12th Hall IV

16:35 - 17:19

Chairperson: M. Shimoyama (Forensic Sci. Lab., Hyogo Pref. Police H.Q.)

G-01 Development of an image scanner using oblique lighting for document identification - outline of the scanner and its application to detection of indented characters -

T. Kamitani^{*1}, M. Ueda^{*2}, S. Tanaka^{*2}, A. Ida^{*3}, M. Sakakibara^{*3} (Fac. Eng., Osaka Sangyo Univ.^{*1}, Forensic Sci. Lab., Kyoto Pref. Police H.Q.^{*2}, Newly Corp.^{*3})

G-02 Application of the image scanner using oblique lighting for document identification -Detection of the spur marks of inkjet printer using the multi-angle scan system-

S. Tanaka^{*1}, M. Ueda^{*1}, T. Kamitani^{*2}, A. Ida^{*3}, M. Sakakibara^{*3} (Forensic Sci. Lab., Kyoto Pref. Police H.Q.^{*1}, Fac. Eng., Osaka Sangyo Univ.^{*2}, Newly Corp.^{*3})

G-03 Detecting spur marks using a NIR illumination emitted by a laser diode

T. Furukawa, N. Nemoto, H. Kawamoto (Forensic Sci. Lab., Ibaraki Pref. Police H.Q.)

G-04 Comparison of dimensional accuracy among multiple flatbed scanners

T. Iwata (Criminal Invest. Lab., Tokushima Pref. Police H.Q.)

Friday 13th Hall IV

08:30 - 09:14

Chairperson: M. Nara (Forensic Sci. Lab., Gunma Pref. Police H.Q.)

G-05 Writer identification based on character geometry - the case of numeric character -

Y. Shoji^{*1}, K. Tokiwa^{*2}, K. Fukue^{*1} (Tokai Univ., Research and Information Center^{*1}, Forensic Sci. Lab., M.P.D.^{*2})

G-06 Writer identification based on character geometry - the case of hiragana -

Y. Abe^{*1}, K. Tokiwa^{*2}, K. Fukue^{*1} (Tokai Univ., Research and Information Center^{*1}, Forensic Sci. Lab., M.P.D.^{*2})

G-07 Study of handwriting analysis by using angle data 2

T. Ohuchi, H. Sakakibara (Criminal Invest. Lab., Aichi Pref. Police H.Q.)

G-08 Handwriting feature extraction by visual inspection

Y. Seki, A. Yamamoto, Y. Akao, Y. Higashikawa (National Research Inst. of Police Sci.)

09:20 - 10:15

Chairperson: K. Tabata (Forensic Sci. Lab., Aomori Pref. Police H.Q.)

G-09 The relation between writing speed and the written form of Chinese characters

- K. Okudo (Forensic Sci. Lab., Nara Pref. Police H.Q.)
- G-10 Analysis of specific tendencies and comparison points used in detecting forged handwriting
T. Izawa^{*1}, J. Takada^{*1}, M. Nakayama^{*2} (Forensic Sci. Lab., Shizuoka Pref. Police H.Q.^{*1}, Kansai Univ. of International Studies^{*2})
- G-11 Case reports of handwriting identification: About handwriting of a different person with similarities such as arrangement
M. Tsukahara, A. Muta, M. Fukui (Forensic Sci. Lab., Hokkaido Pref. Police H.Q.)
- G-12 Development of character clipping system for questioned document identification (3)
Y. Taguchi (Forensic Sci. Lab., Fukuoka Pref. Police H.Q.)
- G-13 Geometry alignment for superimpose method of seals using SIFT
A. Yamamoto, Y. Akao, Y. Higashikawa (National Research Inst. of Police Sci.)

10:25 - 11:20

Chairperson: T. Furukawa (Forensic Sci. Lab., Ibaraki Pref. Police H.Q.)

- G-14 Optimization of measurement geometries for 2D holograms applied to security documents
Y. Akao, A. Yamamoto, Y. Higashikawa (National Research Inst. of Police Sci.)
- G-15 Discrimination of printed materials by principal component analysis of spectral reflectance
Y. Azuma, H. Sakai, M. Inui (Faculty of Eng., Tokyo Polytechnic Univ.)
- G-16 Screening of paper using the histograms of brightness of fluorescence images
M. Shimoyama, K. Kobayashi (Forensic Sci. Lab., Hyogo Pref. Police H.Q.)
- G-17 Examination of laminated documents by a white light interferometer
S. Sugawara^{*1*3}, S. Nakanishi^{*2}, M. Itoh^{*3}, T. Yatagai^{*3*4} (National Research Inst. of Police Sci.^{*1}, Tokyo Metropolitan Industrial Technology Research Inst.^{*2}, Univ. of Tsukuba^{*3}, Utsunomiya Univ.^{*4})
- G-18 A study of identification of artificial passport
H. Sugahara (Criminal Invest. Lab., Aichi Pref. Police H.Q.)