THE PAPERS PROGRAM

Volume I — Track 1
Volume II — Tracks 2, 3 and 4

Monday Morning, May 16, 1994
Ballroom II
PLENARY SESSION
(8:15 - 10:00 a.m.)
Session Chair: Howell Hammond, Eastman Kodak Company

8:30 The present status and future prospects of silver halide photography, T. Tani, Fuji Photo Film Co., Ltd. (Japan)


TRACK I - SILVER HALIDE PHOTOSCIENCE

Ballroom II
Monday through Friday, May 16 - 20, 1994
Symposium on Silver Halide Photoscience

Monday Morning, May 16, 1994
Precipitation and Characterization of Silver Halide Emulsions
(10:30 a.m. - noon)
Session Co-chairs: Jong-Shinn Wey, Eastman Kodak Company and Syoji Matsuzaka, Konica Corp. (Japan)

10:30 Keynote paper: Precipitation of silver halide emulsions and gelatin-free systems, T. Tanaka, Kyoto Institute of Technology (Japan)

11:05 A chemical engineering approach to the modeling of silver halide precipitations, P. H. Jézéquel, Kodak-Pathe (France); H. Muhr, R. David and J. Villermaux, Ecole Nationale Supérieure l'Industrie Chimique (France)

11:30 Precipitation of silver halide emulsions in sols of small silica particle, A. Verbeeck and H. Vandenabeele, Agfa-Gevaert NV (Belgium)

Monday Afternoon, May 16, 1994
Precipitation and Characterization of Silver Halide Emulsions
1:30 p.m. - 5:30 p.m.
Session Co-chairs: Jong-Shinn Wey, Eastman Kodak Company and Syoji Matsuzaka, Konica Corp. (Japan)

1:30 Recrystallization of AgI microcrystals during the double-jet growth of AgBrI microcrystals, S. Matsuzaka and R. Ren, Konica Corp. (Japan)

1:55 Crystal growth and renucleation: theory and experiments, I. H. Leubner, Eastman Kodak Co.

2:20 Synthesis and properties of homogeneous and heterogeneous silver halide microcrystals, core-shell and heterojunction systems, N. S. Zvidentsova, A. F. Guzenko, Y. S. Popov, F. A. Dzyubenko and L. V. Kolesnikov, Kemerovo State University (Russia)
2:45 **Study on chloride rich photographic emulsions**, D. Huang *(3M Lecturer in Imaging Science)*, Jiao Tong University and S. Wang, Lucky Photogr. Film Co. (China)

3:10 Coffee Break

3:40 **Keynote paper: AgX-microcrystals, a three-dimensional, nanostructured material technology**, R. De Keyzer, Agfa-Gevaert N. V. (Belgium)


5:05 **Micro and surface analysis of individual silver halide microcrystals using a secondary ion microprobe**, I. Geuens and R. Gijbels, University of Antwerp; R. De Keyzer and A. Verbeeck, Agfa-Gevaert NV (Belgium)

**Tuesday Morning, May 17, 1994**

**Precipitation and Characterization of Silver Halide Emulsions**

(8:30 - 10:30 a.m.)

*Session Co-chairs: Jong-Shinn Wey, Eastman Kodak Company and Syoji Matsuzaka, Konica Corp. (Japan)*

8:30 **Study of the iodide ions placement in silver halide grains by use of electron energy loss techniques and x-ray diffraction**, J. Lavergne, C. Gimenez, G. Friour, Kodak - Pathé (France); J-M. Martin, CNRS (France)

8:55 **Surface analysis of silver halide microcrystals by x-ray photoelectron spectroscopy**, H. Okusa, S. Matsuzaka, S. Iwamaru and T. Shima, Konica Corp. (Japan)

9:20 **Surface properties of silver halides studied by scanning force microscopy**, H. Haefke, R. Lüthi, G. Gerth and H. Güntherodt, Universität Basel (Switzerland)

9:45 **Atomic force microscopy studies of silver halide crystals**, G. Hegenbart and T. Müssig, Du Pont de Nemours GmbH (Germany)


10:35 **POSTER SESSION**

**PRECIPITATION AND CHARACTERIZATION OF SILVER HALIDE EMULSIONS; and PHOTOPHYSICS OF SILVER HALIDE EMULSIONS**

(Papers program on page xxi)

11:00 to Noon **Authors of even number papers standing by their papers.**

2:00 to 3:00 p.m. **Authors of odd number papers standing by their papers.**

12 NOON TO 2:00 PM **HONORS and AWARDS LUNCHEON**
Tuesday Afternoon, May 17, 1994
Photophysics of Silver Halide Materials
(3:00 - 6:00 p.m.)

Session Co-chairs: Alfred Marchetti, Eastman Kodak Company; and Friedrich Granzer, J. W. Goethe Univ. (Germany)

3:00 Keynote paper: Photophysics of the silver halides, L. Slifkin, University of North Carolina

3:35 Computations of surface defects on properties of silver halide, R. C. Baetzold, Eastman Kodak Co.

4:00 Generation of the latent image by soft deposition of size-selected silver clusters, C. Rosche and F. Granzer, Universität Frankfurt (Germany); S. Wolf, T. Leisner and L. Wöste, Freie Universität Berlin (Germany)

4:25 Reduction and aggregation of silver in aqueous gelatin and silica suspensions, S. Kapoor, D. Lawless, P. Kennepohl and D. Meisel, Argonne National Laboratory; N. Serpone, Concordia University (Canada)

4:50 The consideration on the process of silver halide emulsions sensitivity formation from the point of view of quantum sized centers evolution, V. M. Belous, A. Y. Akhmerov, S. A. Zhukov, N. A. Orlovskaya and V. P. Churashov, Odessa State University (Ukraine)

5:15 Probing silver cluster formation in silver halide emulsions by picosecond laser spectroscopy, D. Lawless and N. Serpone, Concordia University (Canada); M. R. V. Sahyun, 3M

5:40 Time resolved luminescence of photographic AgBr_{1-x}I_x emulsions, G. Israel and H. Tauchnitz, Martin-Luther-Universität (Germany); K. Rittmeier, G. Roewer and W. Jahr, Filmfabrik Wolfen (Germany)

Wednesday Morning, May 18, 1994
Photophysics of Silver Halide Materials
(8:30 - noon)

Session Co-chairs: Alfred Marchetti, Eastman Kodak Company; and Friedrich Granzer, J. W. Goethe Univ. (Germany)

8:30 Keynote paper: The impact of solid state physics on silver halide photography - a historical review, P. Süptitz, Technische Universität Dresden (Germany)

9:05 Transient microwave photoconductivity and computer simulation study of Rh and Ir doped AgCl microcrystals, M. van den Eeden, F. Callens and F. Cardon, University of Gent (Belgium); R. De Keyzer and D. Vandenbroucke, Agfa-Gevaert NV (Belgium)

9:30 [Fe(CN)$_6$]$^{4-}$ as an amphoteric dopant in the silver halides, M. T. Olm, R. S. Eachus and W. G. McDugle, Eastman Kodak Co.

9:55 Effect of rhodium doping of AgX microcrystals on the kinetics of dye radicals, T. Ceulemans and D. Schoemaker, University of Antwerp (Belgium); D. Vandenbroucke and R. DeKeyzer, Agfa-Gevaert NV (Belgium)

10:20 Coffee Break

10:45 A critical examination of models for the interpretation of dielectric loss measurements in photography, J. Heieck and F. Granzer, J. W. Goethe Universität Frankfurt (Germany)

11:10 Microwave absorption in silver halide systems - models and simulation of signals, F. Granzer and O. Schröder, J. W. Goethe Universität (Germany)

11:35 Phase sensitive microwave absorption studies on in AgBr_{1-x}I_x emulsion crystals, T. Müessig and G. Hegenbart, Du Pont De Nemours GmbH (Germany), A. Russow, Technische Hochschule Darmstadt (Germany)
Wednesday Afternoon, May 18, 1994
Silver Halide Chemical and Spectral Sensitization and Addenda
(1:30 - 5:30 p.m.)

Session Co-chairs: Richard K. Hailstone, Rochester Institute of Technology, and Rolf Steiger, Ilford AG (Switzerland)

1:30  Keynote paper: Chemical sensitization - where do we go from here?, R. Hailstone, Center for Imaging Science, Rochester Institute of Technology

2:05  Study on a high-efficiency hypersensitization of AgBr emulsion by gold(I) thiocyanate solution, M. Kawasaki, Y. Oku, Kyoto University (Japan)

2:30  Gold silver sulfide structure on the surface of silver halide microcrystals, T. Murata, Kyoto University of Education (Japan); S. Emura, Osaka Univ. (Japan); T. Nakayama, H. Takada and N. Tsuchiya, Konica Corporation (Japan); H. Maeda, Okayama Univ. (Japan); M. Nomura, Photon Factory (Japan)

2:55  Study of silver sulfide deposition on the surfaces of isometric and tabular grains of silver halide emulsions, V. P. Oleshko, Y. V. Fedorov and M. V. Alfimov, (Eastman Kodak Company Weissberger-Williams Lecturer), N. N. Semenov Inst. of Chemical Physics, Russian Academy of Sciences (Russia)

3:20  Coffee Break

3:50  Estimation of electron trap depths of sulfur sensitized emulsions, T. Nakayama, Konica Corp. (Japan)

4:15  Concentration process problem and the photostimulated destruction of adsorbed Ag2S and other clusters, A. N. Latyshev and L. V. Leonova, Voronezh State University (Russia)

4:40  Sensitometric properties of elemental sulfur and of its selected sulfur donors and acceptors, J. O. Helling and A. Herz (ret.), Eastman Kodak Co.

5:05  Temperature effect of chemical sensitization in octahedral AgBrI emulsion, S. Liu, J. Yue and X. Xu, University of Science and Technology of China (China)

Thursday Morning, May 19, 1994
Silver Halide Chemical and Spectral Sensitization and Addenda
(8:30 - 10:30 a.m.)

Session Co-chairs: Richard K. Hailstone, Rochester Institute of Technology, and Rolf Steiger, Ilford AG (Switzerland)


9:05  The dependence of energy propagation in J-aggregates on environmental conditions, S. Daehne, U. De Rossi, and J. Moll, Federal Institute for Materials Research and Testing (Germany); J. Kriwanek, Max-Planck-Institute of Colloid and Surface Research (Germany); M. Lindrum, Free University Berlin (Germany)

9:30  QSPR models for benzimidazolocarbocyanines, S. G. Link, Eastman Kodak Co.

9:55  Photoselction of spectral sensitizers, H-J. Schumann, and M. Mißfeldt, Agfa-Gevaert AG (Germany)

10:20  POSTER SESSION
SILVER HALIDE CHEMICAL AND SPECTRAL SENSITIZATION AND ADDENDA; and COLOR IMAGING CHEMISTRY AND DEVELOPMENT IN SILVER HALIDE SYSTEMS

10:20 TO 11:10  Authors of even number papers standing by their papers.
(Papers program on page xxiii)

11:10 TO NOON  Authors of odd number papers standing by their papers.
(Papers program on page xxiii)
Thursday Afternoon, May 19, 1994
Silver Halide Chemical and Spectral Sensitization and Addenda
1:30 - 5:40 p.m. -- Ballroom II

This session is held concurrently with Color Imaging Chemistry and Development in Silver Halide Systems
Session Co-chairs: Richard K. Hallstone, Rochester Institute of Technology and Rolf Steiger, Ilford AG (Switzerland)

1:30 The effects of J-aggregation on the redox levels for a cyanine dye adsorbed to cubic AgBr, J. R. Lenhard and B. R. Hein, Eastman Kodak Co.

1:55 Investigations of the interaction of electronic and ionic processes in spectral sensitized microcrystals, J. Siegel, Agfa-Gevaert AG (Germany); D. Vandenbroucke, Agfa-Gevaert NV (Belgium)

2:20 Dielectric loss measurements for studying the influence of spectral sensitizers and stabilizers on the ionic conductivity of AgX-microcrystals, J. Harenburg, J. Heieck and F. Granzer, J. W. Goethe-Universität (Germany); J. Siegel, Agfa-Gevaert AG (Germany); G. Israel, Universität Halle (Germany)

2:45 Flash-photolysis study of transients in AgBr emulsions: Role of spectral sensitizers, A. K. Chibisov and G. V. Zakharova, Institute of Chemical Physics of the Russian Academy of Sciences (Russia)

3:10 Coffee Break

3:35 Surface iodide ions on cubic AgBr emulsion crystals, R. Steiger and A. Kriebel, Ilford AG (Switzerland)

4:00 Cyanine dye J-aggregates adsorbed on AgBr emulsion crystals studied by analytical color fluorescence electron microscopy, H. Saijo, T. Iishiki and M. Shiojiri, Kyoto Institute of Technology; S. Watanabe, T. Tani, Fuji Photo Film Co.; K. Ogawa, Kyoto University (Japan)

4:25 Direct observation of cyanine dye J-aggregates adsorbed on AgBr emulsion crystals studied by high resolution scanning electron microscopy, H. Saijo, T. Iishiki and M. Shiojiri, Kyoto Institute of Technology; M. Nakagawa and M. Yamada, Hitachi Instruments Engineering Co., Ltd.; S. Watanabe and T. Tani, Fuji Photo Film Co. Ltd. (Japan)

4:50 Aggregation and orientation of merocyanine dye on AgBr surfaces, H. Haefke, U. Schwarz, W. Gutmannsbauer, Universität Basel (Switzerland) H. Fröb and H. Böttcher, TU of Dresden (Germany)

5:15 The mechanism of the photographic process as revealed by model investigations, Jordan Malinowski (Eastman Kodak Company Weissberger-Williams Lecturer), Central Laboratory of Photoprocesses (Bulgaria)

Thursday Afternoon, May 19, 1994
Color Imaging Chemistry and Development in Silver Halide Systems
1:30 - 5:30 p.m. -- Ballroom I

This session is held concurrently with Silver Halide Chemical and Spectral Sensitization and Addenda
Session Co-chairs: Jon Staples, Eastman Kodak Company and Nobuo Furutachi, Fuji Photo Film Co., Ltd. (Japan)

1:30 Keynote paper: Advances in magenta layer imaging chemistry, J. T. Staples, Eastman Kodak Co.

2:05 Specific depression of magenta stain caused by pyrazolotriazole coupler, N. Furutachi, M. Morigaki, O. Takahashi, Fuji Photo Film Co. Ltd. (Japan)

2:30 Thermal oligomerization of 7-chloro-1H-pyrazolo[5,1-c]-1,2,4-triazoles catalyzed by methoxybenzenediazonium cations, J. N. Younathan, D. L. Kapp, R. J. Ross and S. P. Singer, Eastman Kodak

2:55 Development of 5-amido-1-naphthol type cyan couplers, H. Kobayashi and K. Mihayashi, Fuji Photo Film Co. Ltd. (Japan)

3:20 Coffee Break

4:15 The study of phase transformations, mass transfer and chemical reactions in model emulsions and coupler dispersions by electron spin resonance technique, M. V. Alfimov (Eastman Kodak Company Weissberger-Williams Lecturer), N. N. Semenov Institute of Chemical Physics, Russian Academy of Sciences (Russia)

4:40 Numerical simulation for kinetics of diffusion and reactions in gelatin layer, P-J. Xia (Eastman Kodak Company Weissberger-Williams Lecturer), W. Zhao and X. Ren, Inst. of Photographic Chemistry, Academia Sinica (China)


Friday Morning, May 20, 1994
Environmental Technologies for Silver Halide Imaging Systems
(8:30 a.m. - noon)
Session Co-chairs: Jon Kapecki, Eastman Kodak Company and Immo Boie, Agfa Gevaert AG (Germany)

8:30 Keynote paper: Effluent reduction in the photoprocessing industry: How far should we go? How far can we go?, W. Grossmann, Photofinishing Consultant (Switzerland)

9:05 Ecological advantages of core and shell sensitized emulsions for direct-positive microfilm, R. Arcus, R. Breslawski and D. Corbin, Eastman Kodak Co.

9:30 Permanent antistatic layer for photographic films, W. Krafft, and Friedrich Jonas, Agfa-Gevaert AG (Germany)

9:55 Coffee Break

10:20 Electrochemical ion exchange - a new technique of potential use in removing silver to very low levels from photoprocessing effluent, H. H. Adam, D. M. Henson, Kodak Ltd. (U.K.); and M. D. Neville, AEA Technology

10:45 Isolation and characterization of microorganisms degrading (ethylenediaminetetraacetato)ferrate (III) complex, H. Miyazaki and S. Suzuki, Fuji Photo Film Co. Ltd. (Japan); K. Imada, Tokyo University of Agriculture

11:10 Reduction of process RA-4 final wash silver concentration with an optimized low flow wash configuration, S. T. Gordon, Eastman Kodak Co. and D. Woolley, Qualex, Inc.

11:35 Elimination of developing agents from both the overflow and the wash water of photographic processes, U. Nickel, University of Erlangen - Nurnberg (Germany)

Friday Afternoon, May 20, 1994
Environmental Technologies for Silver Halide Imaging Systems
(1:30 - 3:30 p.m.)
Session Co-chairs: Jon Kapecki, Eastman Kodak Company and Immo Boie, Agfa Gevaert AG (Germany)

1:30 Benefits for photoprocessing derived from changes in film structure, D. G. Foster and G. A. Krueger, Eastman Kodak Co.


2:20 Activated sludge treatment of thiocyanate-bearing photofinishing waste waters, P. Pavlostathis and C. Hung, Georgia Institute of Technology
2:45 Recycling of photographic equipment, J. Crone and I. Boie, Agfa - Gevaert AG (Germany) 193
3:10 Compliance with packaging regulations in Europe, H. J. Bieder, Du Pont De Nemours GmbH (Germany) 196

**TRACK I POSTER SESSIONS**

Tuesday Morning and Afternoon, May 17, 1994
Precipitation and Characterization of Silver Halide Emulsions and Photophysics of Silver Halide Emulsions
Session Chair: Robert A. Arcus, Eastman Kodak Co.

(Presenters of even numbered papers will be standing by their poster papers from 11:00 a.m. - noon; presenters of odd numbered papers will be standing by their poster papers from 2:00 - 3:00 p.m.)

**P1** Drift mobilities and lifetimes of photogenerated electrons in silver halide sheet crystals, R. Alhauser, F. Granzer, W. Grill, J. Wesner, J. W. Goethe Universität (Germany); A. Russow and H. Fuess, Technische Harschule Darmstadt (Germany); T. Mussig, DuPont de Nemours GmbH (Germany)

**P2** Sensitometric properties modeling of photomaterials, V. V. Berdnik, Kazan State Technological University (Russia)

**P3** Optical and structural investigations of microcrystalline AgBr in mixed layers deposited by multi source PVD technique, T. Bohne, H. Bottcher and H. Frob, Technische Universitat Dresden (Germany)

**P4** Electronic properties of AgBr/AgBr\textsubscript{1-x} phase boundaries in evaporated films, S. Buchs and F. Granzer, J. W. Goethe Universität (Germany)

**P5** A statistical study of crystal habit dispersity of tabular grain, X. Cheng, Q. Yu, R. Wang and B. Peng, Inst. of Photographic Chemistry, Academia Sinica (China)

**P6** Study fatigue of luminescence of single AgBr(I) microcrystals, N. V. Denisova and V. M. Shwarz, Kazan State Technological University (Russia)

**P7** Photoelectrical measurements on evaporated silver halide layers, H. Fröb and H. Böttcher, Technische Universität Dresden (Germany)

**P8** Electron diffraction evidence for ordering of interstitial silver ions in silver bromide microcrystals, C. Goessens, D. Schryvers, D. Van Dyck, J. Van Landuyt, University of Antwerp (Belgium); R. De Keyzer, Agfa Gevaert NV (Belgium)

**P9** Topological and chemical analysis of AgBr microcrystals, A. Kriebel, Ilford AG (Switzerland); R. Levi-Setti and J. Chabala, University of Chicago; W. Gutmannsbauer and H. Haefke, Universität Basel (Switzerland)

**P10** Characterization of silver halide microcrystals by atomic force microscopy, W. Gutmannsbauer, H. Haefke, U. D. Schwarz, H. J. Güntherodt, Universität Basel (Switzerland); R. Steiger, Ilford AG (Switzerland)

**P11** The response on IIaO film to small dosages of alpha particles from 0.3 Rads to 8 Rads at Energy Levels 153 Mev, 79 Mev and 47 Mev, E. C. Hammond, Morgan State University

**P12** Atomic surface structure of epitaxial AgBr thin films on Au(111) as measured by scanning tunneling microscopy, J. Hansen and M. G. Mason, Eastman Kodak Co.

**P13** On the nature of the surface charge and dielectric relaxation: Correlation between the ionic conductivity and photographic process in silver halide microcrystals, L. V. Kolesnikov, I. A. Sergeeva and V. V. Svistunova, Kemerovo State University (Russia)

*IS&T's 47th Annual Conference/ICPS 1994—xxi*
P14 The energetic characteristics and the influence of stabilizers and chemical sensitization type on the physical and photographic properties of composite photoemulsion microcrystals, I. A. Sergeeva, E. I. Kagakyn, I. V. Milyoshin, G. N. Nikonova, V. A. Moskinov and L. V. Kolesnikov, Kemerovo State University (Russia)

P15 Influence of degree of photoemulsion exposure on luminescence fatigue of silver chloride, V. G. Klyuev, L. Y. Malaya and A. N. Latyshev, Voronezh State University (Russia)

P16 A study of AgBr tabular grains and their epitaxy with AgCl, M. Lu and Y. Wang, East China Univ. of Science and Technology (China)

P17 Stacking fault excitons in AgBr microcrystals with twin planes, A. Marchetti, Eastman Kodak Co.

P18 The influence of some organic compounds on the recrystalization of fine grain AgBr emulsions, S. Jablonka, C. Mora, P. Nowak, and A. Zaleski, Technical University of Wroclaw (Poland)

P19 Photographic testing method of reducing properties of gelatins, S. Jablonka, C. Mora and P. Nowak and A. Zaleski, Technical University of Wroclaw (Poland)

P20 Grain size dependence of photocharge effect in Ag(I)Br emulsions, C. Zou, M. R. V. Sahyun, M. E. Mueller, 3M; B. Levy, Boston University

P21 A study of the influence of spectral sensitizers and stabilizers on the lifetime of photoelectrons by microwave absorption measurements, O. Schroder and F. Granzer, J. W. Goethe Universitat (Germany); J. Siegel, Agfa-Gevaert AG (Germany)

P22 Multiple exciton species in the silver halides, J. Spoonhower, Eastman Kodak Co.

P23 Atomic force microscopy studies of atomic structures of AgBr emulsion grain surfaces, H. Takada and S. Matsuzaka, Konica Corp. and H. Nozoye, National Institute of Materials and Chemical Research (Japan)

P24 Comparative studies of stokes and anti-stokes luminescence spectra of Ag halide microcrystals, E. V. Vaganova, Kazan State Technological University (Russia)

P25 Hydrodynamics and mass transfer in the silver halide crystallization process during mono-disperse emulsion synthesis, B. A. Vorobyov, S. G. Diakonov, V. I. Yelizarov, V. V. Karatayeva and D. A. Glebov, Kazan State Technological University (Russia)

P26 Radiochemical investigations of the kinetics of the phase interface processes on silver halide crystals in the presence of photographically active substances, A. Winzer, Martin Luther Universitat (Germany)

P27 The effect of iodide distribution on the reversal characteristics of emulsion with multistructure grains, J. Wu, D. Huang and S. Zhuang, East China University of Science and Technology (China)

P28 The formation of T-grain with high iodide content, Y. Xu and J. Li, Inst. of Photographic Chemistry, Academia Sinica; H. Cheng, Peking University (China)

P29 Study on structure and characteristics of epitaxial T-grains along their edges, S. Liu, J. Yue and J. Zhu, University of Science and Technology of China (China)

P30 The purposeful synthesis of organic compounds for the production and development of photographic materials, P. M. Zavlin, (3M Lecturer in Imaging Science), A. N. Dyakonov, L. L. Kuznetsov and A. Efremov, St. Petersburg Institute of Cinema and Television (Russia)

P31 Influence of the process of maceration in the gelatin production upon the properties of the gelatin-based photographic emulsions, P. M. Zavlin, A. N. Dyakonov, L. L. Kuznetsov, V. A. Moskinov, E. A. Kagakyn, T. A. Larichev and Y. R. Spirina, St. Petersburg Institute of Cinema and Television and Kemerovo State University (Russia)
Tuesday Posters, Provisional Papers

P32 Kinetics of electron transfer to critical sized silver clusters complexed by polyacrylate.
M. Mostafavi, M. O. Delcourt and J. Belloni, Laboratoire de Physico-Chimie des Rayonnements (France)

P33 Spectral sensitization of silver halide photographic emulsion to IR region by quantum confined CuS particles, M. V. Artemyev, and D. V. Sviridov, Byelorussian State University (Belarus)

P34 A study of grains with polar structure in photographic silver halide emulsion, Y. Chen, J. Cai and X. Chen, Era Photo Material Industry Corp. (China)

P35 Silver coloring centers in microcrystals of silver bromide, S. F. Chernov and V. N. Zakharov, Research Center of Molecular Diagnostics (Russia)

P36 Superionic silver salts in photography, A. L. Kartuzhanski, St. Petersburg Institute of Commerce and Economics (Russia)

P37 Dember effect ionic analogue in silver halides, V. G. Kriger, A. V. Khaneft and A. L. Kartuzhanski, Kemerovo State University (Russia)

P38 Growth modifiers and silver halide crystal shapes (a structure-activity correlation), M. J. Nanjan, Hindustan Photo Films Mfg. Co. Ltd. (India)

P39 The modifierless precipitation of AgCl T-crystals, B. A. Sechkarev, M. I. Ryabova and L. V. Sotnikova, Kemerovo State University (Russia)

P40 Pulse Herschel effect and carrier trapping study in Ag halide emulsion microcrystals, D. I. Staselko and V. N. Mikhailov, S.I. Vavilov State Optics Institute (Russia)

P41 Time resolved spectroscopy of primary processes in silver halides, S. S. Tibilov, V. N. Lebedev and S. V. Patsera, Russian Hydro Meteorological Institute (Russia)

P42 Spectroscopic determination of Fe$^{+2}$ and Fe$^{+3}$ in photographic gelatin, D. Wang, J. Gan and B-X. Huang, University of Science and Technology of China (China)

P43 Study on chemical forms of calcium in photographic gelatin, Y. Yin, X. Yue, W. Gang and B. Huang, University of Science and Technology of China, (China)

Thursday Morning, May 19, 1994
Poster Session
Silver Halide Chemical and Spectral Sensitization and Addenda; and
Color Imaging Chemistry and Development in Silver Halide Systems
Session Chair: Joseph C. Deaton, Eastman Kodak Co.
(Presenters of even numbered papers will be standing by their poster papers from 10:20 - 11:10; presenters of odd numbered papers will be standing by their poster papers from and 11:10- Noon)

P1 Express control of photoemulsion properties in chemical ripening process, V. V. Berdnik, Kazan State Technological University (Russia)

P2 Excited state dynamics in a thiacarbocyanine J-aggregate: results for aggregate size variation produced by a statistical dilution technique, D. V. Brumbaugh and A. A. Muenter, Eastman Kodak Co.; L. Horn and K. Adams, Univ. of Rochester

P3 Sensitization by 5-methyl-7-hydroxy-1,3,4-triazazindolizine in AgCl emulsion, R. Sun, P. Chen and D. Zheng, Inst. of Photographic Chemistry, Academia Sinica (China)

P4 Kinetic study of the reduction of silver halide at both rotated silver discs and silver colloids, Y-H. Chen, J. Richter, and U. Nickel, University of Erlangen - Nurnberg (Germany)
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