

Poster Presentation

Nov. 21 (Fri) Room P (1F, 4F)

15:10~16:20 Even number presentation (First half)

16:20~17:30 Odd number presentation (Second half)

※Underlined presentations are nominated to the Poster Award

P-01~P-51 1 F Small Hall P-52~P-81 4 F Lobby

P-01 Multireference study of the optical spin polarization mechanism in metal complexes

○Yuki Yamamoto¹, Yuki Kurashige^{1,2,3}

¹Grad. Sch. of Sci., Kyoto Univ.; ²CREST, JST; ³FOREST, JST

P-02 Dependence of magnetic properties of liquid crystals on the concentration of nitroxide radical

○Yuta Suzuki, Yoshiaki Uchida, Norikazu Nishiyama

Grad. Sch. of Eng. Sci., Osaka Univ.

P-03 Study of exciton rotation dynamics in α -synuclein droplets using time-resolved EPR Spectroscopy

○Daiki Tomiya¹, Kenji Fujitsuka¹, Masaaki Fuki^{1,2}, Eri Chatani¹, Yasuhiro Kobori^{1,2}

¹Grad. Sch. of Sci., Kobe Univ.; ²MPRC, Kobe Univ.

P-04 Effect of cross relaxation on electron spin polarization generated via triplet-triplet annihilation photon upconversion

○Kouhei Terayama¹, Kousuke Higashi², Tsubasa Okamoto³, Masaaki Fuki⁴, Yasuhiro Kobori⁴

¹Grad. Sch. of Sci., Kobe Univ.; ²Toray Research Center, Inc.; ³Inst. of Pure Appl. Sci., Univ. of Tsukuba;

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P-05 Elucidation of molecular scientific information on trace metals in tea extract using Q-band ESRN spectroscopy

○Satoha Numakura¹, Ko Furukawa²

¹Grad. Sch. of Sci. and Tech., Niigata Univ.; ²CCRF, Niigata Univ.

P-06 Bifunctional scavenging activity of the water-soluble carotenoid crocin toward organic radicals and singlet oxygen based on ESR and UV-Vis absorption spectroscopy

○Reo Tanada, Miwa Takatsuka, Tomohiro Tsuchida, Satoru Goto

Grad. Sch. of Pharma. Sci., Tokyo Univ. of Sci.

P-07 Excited state dynamics of higher acene formed by photoprecursor method

○Mikaru Masuda¹, Hironobu Hayashi², Hiroko Yamada³, Tomoaki Miura¹, Tadaaki Ikoma^{1,4}

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P-08 Environmental effect on spin conversion of excited states for 4Cz-IPN

○Sota Gocho¹, Kyosuke Oki¹, Tomoaki Miura¹, Hajime Nakanotani², Tadaaki Ikoma^{1,3}

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P-09 Relationship between magnetic field-induced structural changes and EPR signals of ISCA1

○Shogo Soga¹, Ryoma Kobayashi², Hirokazu Masai³, Koji Kimura⁴, Kiminori Maeda¹, Mitsuhiro Hirai⁵, Hiroki Nagashima¹, Shigeki Arai²

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P-10 Dynamics of quasi-condensed excited states in the Acridane-Triazines system

○Kyosuke Oki¹, Mikaru Masuda¹, Joel Hao Jorolan², Tomoaki Miura¹, Hironori Kaji³, Tadaaki Ikoma^{1,4}

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P-11 Verification of SOMO-HOMO inversion in a highly strained cage ketone radical cation by time-resolved ESR

○Kanata Wada¹, Kento Nakaya¹, Takuya Ogaki^{1,2}, Yasunori Matsui^{1,2}, Masaaki Fuki³, Yasuhiro Kobori³, Toshio Asada^{2,4}, Hiroshi Ikeda^{1,2}

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P-12 Room-temperature spin quantum coherence in chromophore-radical systems embedded in polystyrene matrix: effect of molecular motion

○Yuya Kokado¹, Kevin Kopp², Masaaki Fuki^{1,3}, Yoshio Okiyama³, Shigenori Tanaka³, Olav Schiemann², Yasuhiro Kobori^{1,3}

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P-13 Observation of reaction intermediates and determination of rate constants for the reaction between benzyl dodecyl carbonotrithioate and alkyl radicals using methods time-resolved ESR and pulsed ESR

○Masatoshi Kato¹, Takashi Inaba², Yoko Kawai², Yusuke Miyake³, Ikuo Nakanishi⁴, Akio Kawai^{2,4}

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⁴Inst. Quant. Life Sci., Natl. Inst. Quant. Sci. Tech.

P-14 The line shape of the MARY spectrum of the DNA-flavin-linked system

○Kotaro Maruyama¹, Yoshimi Oka^{2,3}, Katsuya Inoue^{2,3}, Kiminori Maeda¹

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P-15 Development of near-infrared fluorescent nitroxide probes for ascorbate imaging

○Karin Nagahama, Toshihide Yamasaki, Kohei Sano, Takahiro Mukai
Kobe Pharm. Univ.

P-16 Analysis of radical reaction in solution of water-soluble polymers

○Yuri Nishikawa¹, Wataru Sakai²

¹Grad. Sch. of Sci. & Tech., Kyoto Inst. of Tech.; ²Fac. of Mat. Sci. & Eng., Kyoto Inst. of Tech.

P-17 Development of a single-sided magnet for 750 MHz EPR measurements

○Sunao Furuhashi

Dep. of Eng., Grad. Sch. of Integ. Sci. and Tech., Shizuoka Univ.

P-18 Development of an automated EPRI/MRI co-registration system for four-dimensional spectral-spatial imaging in tumor model mice

○Tatsuma Deguchi¹, Shingo Matsumoto², Hiroshi Hirata²

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P-19 Deep learning reconstruction of 3D images from CW-EPR projection data: A feasibility study

○Huiqian He¹, Hiroshi Hirata²

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P-20 Design and construction of a pulsed ESR system using a Gyrotron as light source

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P-21 Performance evaluation of a pulsed ESR system using a Gyrotron as light source

○Naoto Nakane¹, Yamato Katayama¹, Takayuki Asano^{1,2}, Yuya Ishikawa¹, Yutaka Fujii¹, Seitaro Mitsudo^{1,2}

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P-22 Optimization of multiple harmonic detections in EPR spectroscopy for p₁TAM-D radicals

○Ryo Sato¹, Shingo Matsumoto², Hiroshi Hirata²

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P-23 Accuracy improvement of EPR spectral reconstruction in multiple harmonic detections

○Shuto Nandanami¹, Shingo Matsumoto², Hiroshi Hirata²

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P-24 Design and evaluation of a multi-loop multi-gap resonator for mouse abdomen

○Ibuki Torioka

Dep. of Eng., Grad. Sch. of Integ. Sci. and Tech., Shizuoka Univ.

P-25 Study on charge-accumulation states of perovskite organic electrochemical transistors using ESR measurements

○Taiki Sakaguchi¹, Sayo Okabe¹, Yukihiro Shimoi^{1,2}, Kazuhiro Marumoto^{1,2,3}

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P-26 Operando ESR observation of interfacial charge states in D149 dye-sensitized double perovskite solar cells

○Yanqiu Yang¹, Yizhou Chen¹, Yukihiro Shimoi^{1,2}, Kazuhiro Marumoto^{1,2,3}

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P-27 ESR study of FeCo alloy thin film

○Ryo Hirata¹, Susumu Okubo^{1,2}, Yuto Shimizu³, Shota Kobayashi³, Hiroaki Kato⁴, Ken Itakura⁵, Masaki Nakano⁶, Kunihiro Koike³

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P-28 High-frequency ESR study of spin dynamics in the S=1/2 quantum magnet C₉H₁₈N₂CuBr₄

○Mitsuki Nishita¹, Takahiro Sakurai², Makoto Saga³, Shigeo Hara³, Susumu Okubo^{1,4}, Hitoshi Ohta⁴

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P-29 Antiferromagnetic resonance of multiferroics YCrO₃

○Takehiro Miyazawa¹, Shohei Ikeda¹, Shigeo Hara², Takahiro Sakurai³, Susumu Okubo^{1,4}, Hitoshi Ohta¹, Hiroya Sakurai⁵

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P-30 Construction of heterodyne detection system for mm-wave ESR measurements using ³He-⁴He dilution refrigerator

○Hayato Ito¹, Yuta Shimizu¹, Keisuke Kawagita¹, Yuya Ishikawa¹, Akira Fukuda², Sergey Vasiliev³, Yutaka Fujii¹

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P-31 Development of ODMR measurement technology under high pressure in a diamond anvil cell

○Reo Hattori¹, Ayumu Shimizu¹, Susumu Okubo^{1,2}, Takahiro Sakurai³, Hitoshi Ohta², Masazumi Fujiwara⁴

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P-32 Performance angular dependence of photoinduced ESR signals in BaZrO₃ crystal

○Kana Harada¹, Ikuko Akimoto¹, Hideto Matsuoka²

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P-33 Manganese high affinity site in photosynthetic photosystem II protein complex

○Naohiko Nakamura, Shinya Kosaki, Hiroyuki Mino

Grad. Sch. of Sci., Nagoya Univ.

P-34 Singlet oxygen production by FAD excited state and the MFE

○Kento Wakamura¹, Akio Kawai², Kiminori Maeda¹

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P-35 Behavior of radical pairs in the BSA-AQDS system simulated using molecular dynamics calculations

○Takahiro Yoshioka, Sakura Homma, Hiroki Nagashima, Yasuhiro Matsunaga, Kiminori Maeda

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P-36 Theoretical study of electron spin relaxation of triplet chromophores in a host crystal

○Katsuki Miyokawa¹, Yuki Kurashige^{1,2,3}

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P-37 Investigation of assembly composition for optimizing magneto-optical response of singlet-radical-pair embedded vesicle capsules

○Wakana Tone¹, Tadaaki Ikoma^{1,2}, Tomoaki Miura¹

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P-38 Magnetic field effects on excited triplet-radical pairs

○Sora Hagiwara, Tomoaki Yago, Masanobu Wakasa

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P-39 Thermally activated delayed fluorescence and electron spin dynamics influenced by energy gap between excited singlet and triplet states

○Hidetoshi Tanaka¹, Tsubasa Okamoto³, Masaaki Fuki², Naoya Aizawa⁴, Yugo Iwami⁴, Yasuhiro Kobori²

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P-40 ESR spectral lines of TEMPO-type nitroxides containing aromatic rings at the α position

○Koki Omoto, Toshihide Yamasaki, Kohei Sano, Takahiro Mukai

Lab. of Biophys. Chem., Kobe Pharmaceutical Univ.

P-41 Temperature dependence of magnetic field effect on optical absorption and photocurrent signals of PTB7:PC₇₁BM bulk heterojunction thin film

○Reina Konaka¹, Tadaaki Ikoma^{1,2}, Tomoaki Miura¹

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P-42 Magnetic field effect on porphyrin-quinone triplet-radical-pairs embedded in bilayer membrane capsules

○Kota Yasutomi¹, Tadaaki Ikoma^{1,2}, Tomoaki Miura¹

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P-43 Magnetic field effect on the radical ion pairs of pyrene-*N,N*-dimethylaniline system in ionic liquids

○Momoka Nakayama, Tomoaki Yago, Masanobu Wakasa

Grad. Sch. of Sci. and Eng., Saitama Univ.

P-44 Quantitative determination and elucidation of the mechanisms of dynamic electron spin polarization created by radical quenching process of triplet state anthraquinone sulfonic acid derivative

○Asagi Joka¹, Masatoshi Kato¹, Ikuo Nakanishi², Akio Kawai¹

¹Grad. sch. of Sci., Kanagawa Univ.; ²Inst. Quant. Life Sci., Natl. Inst. Quant. Sci. Tech.

P-45 Electron spin coherence, SEMF and low-field effect mechanisms studied by pump-push spectroscopy

○Yoshitoshi Matsushita¹, Akihiro Tateno¹, Kiminori Maeda¹, Christoph Lambert²

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P-46 Competitive ligand effects for identifying binding pocket in bovine serum albumin-anthraquinone derivative complex

○Tomi Tagaya¹, Shuhei Arai¹, Takahiro Yoshioka¹, Yasuhiro Matsunaga¹, Hiroki Nagashima^{1,2}, Kiminori Maeda¹

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P-47 Microscopic elucidation of structural-isomer dependent charge states in organic semiconductors using the operando ESR method

○Wakaba Somiya¹, Wenhao He¹, Yukihiro Shimo^{1,2}, Kazuhiro Marumoto^{1,2,3}

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P-48 Withdrawn

P-49 Design of magnetic shielding for the construction of a magnetic resonance observation system using terahertz wave oscillators

○Daiki Matsumaru^{1,2}, Michitaka Maruyama², Takanari Kashiwagi^{1,3}

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P-50 Development of high-pressure ESR measurement system using diamond NV centers I

○Ayumu Shimizu¹, Reo Hattori¹, Susumu Okubo^{1,2}, Takahiro Sakurai³, Hitoshi Ohta², Masazumi Fujiwara⁴

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P-51 Development of ultra-small diabolo-type resonators for ESR measurement

○Keisuke Kawagita¹, Yuya Ishikawa¹, Yutaka Kurachi¹, Jarno Järvinen², Sergey Vasiliev², Yutaka Fujii¹

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P-52 Degradation reaction analysis of polymer materials using the spin-trapping method

○Wataru Sakai

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P-53 Evaluation of HALS in PS/PMMA using ESR method

○Hideyuki Hara

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P-54 Investigation of spectral analysis methods for enhancing the sensitivity of ESR dosimeters

○Kenji Komaguchi¹, Kazusi Maeda², Ichiro Imae¹, Keiichi Imato¹, Yousuke Oyama¹, Eva Lund³, Anders Lund³

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P-55 Basic study on the mechanism of TEMPOL-enhanced cytotoxicity of vitamin K₃ in tumor cells

○Shoko Okazaki, Yuriko Osako, Daichi Kinoshita, Sumika Shibao, Kana Sakuragi, Yuiko Imahuku, Mai Kaieda, Maiko Noshita, Yuhei Ohta, Keizo Takeshita

Fac. of Pharm. Sci., Sojo Univ.

P-56 Attempts to evaluate kinetics of reaction of a RAFT agent with radical species related to polymerization rate retardation and induction period

○Ibuki Nakamae, Yusuke Miyake, Kenji Kanaori

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P-57 Time-resolved ESR and electron spin polarization transfer of anthracene-radical linked spin systems in solution

○Yoshio Teki^{1,2,3}, Akihiro Shimizu¹, Nobutoshi Kimura², Ken Kato⁴

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P-58 Evaluation of CO₂ adsorption capacity via thermal degradation analysis of polyethyleneimine

○Kousuke Higashi, Yoji Yamaguchi, Takatoshi Sawai, Yuki Asanuma, Shigeru Yoshimoto

Toray Research Center, Inc.

P-59 Spin dynamics enabling efficient organic room-temperature phosphorescence

○Hideto Matsuoka¹, Kazuki Shichida¹, Koki Tachibana², Genki Wasano², Hideji Osuga²

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P-60 Identifying the mechanism of radical generation observed during the reaction of RAFT agents bearing cyano and carboxy groups

○Sana Kadono, Yusuke Miyake, Kenji Kanaori

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P-61 Magnetic properties of 2p, 3d, and 4f heterospin linear arrays in coordination polymers having a triplet ligand bridge

○Shota Tsukii, Nagito Haga, Takayuki Ishida

Grad. Sch. of Info. and Eng., Univ. of Electro-Communications

P-62 Structure and properties of coordination compounds and diamagnetic dimers of *m*-phenylene bisnitroxides

○Takayuki Ishida, Liangcheng Lyu

Grad. Sch. of Info. and Eng., Univ. of Electro-Communications

P-63 Analysis of intramolecular singlet fission mechanism by time-resolved EPR

○Masahiro Tanaka¹, Masaaki Fuki^{1,2}, Shunta Nakamura³, Hayato Sakai³, Taku Hasobe³, Yasuhiro Kobori^{1,2}

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P-64 Time-resolved EPR spectra and zero field splitting of the lowest excited triplet state of Cu(I) complexes

○Motoko S. Asano¹, Sho Hashimoto¹, Yoshifumi Yasuda¹, Ryuya Sakuma¹, Miyabi Hiyama¹,

Masahiko Hada²

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P-65 Mechanistic study of the reaction in atmospheric pressure plasma using flow spin-trapping ESR methods

○Yasuhiro Sakurai¹, Kenji Kanaori², Kunihiro Tajima²

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P-66 Study on effects of substituents on reaction mechanism between edaravone derivatives and reactive oxygen species

○Takuya Fukura, Yusuke Miyake, Kenji Kanaori

Grad. Sch. of Sci. & Tech., Kyoto Inst. of Tech.

P-67 ESR analysis of charge behavior and molecular orientation in ternary polymer solar cell materials using organic electrochemical transistors

○Jiaxi Wang¹, Dong Xue¹, Satoshi Inai¹, Yukihiro Shimoi¹, Itaru Osaka², Kazuhiro Marumoto^{1,3,4}

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⁴TREMS, Univ. of Tsukuba

P-68 Study of the charge state of a blue luminescent electrochemical cell using multiple resonance thermally activated delayed fluorescent materials

○Yu Takahashi¹, Rika Nanto¹, Mika Nakajima¹, Yukihiro Shimo^{1,2}, Takuji Hatakeyama³, Kazuhiro Marumoto^{1,2,4}

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P-69 Operando ESR measurements of light-emitting electrochemical cells with a TADF dendrimer: A study of the operation mechanism

○Takehisa Isozumi¹, Yu Takahashi¹, Rika Nanto¹, Yukihiro Shimo^{1,2}, Keiko Yamaoka³, Ken Albrecht³, Kazuhiro Marumoto^{1,2,4}

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P-70 ESR study on charge diffusion between dopant-free hole transport layer and hole collection layer in lead-based perovskite solar cells

○Yuta Utsumi¹, Atsushi Sato¹, Yukihiro Shimo^{1,2}, Kazuhiro Marumoto^{1,2,3}

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P-71 Operando ESR study on charge state and molecular orientation in organic electrochemical transistors using n-type organic semiconductor BBL

○Shogo Yamazaki¹, Taiki Sakaguchi¹, Wenhao He¹, Yukihiro Shimo^{1,2}, Kazuhiro Marumoto^{1,2,3}

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P-72 ESR study on the effects of sulfonium-salt interfacial modification on the charge states in lead perovskite solar cells

○Hinata Watanabe¹, Shintaro Kaneko¹, Yizhou Chen¹, Atsushi Sato¹, Yarqiu Yang¹, Yukihiro Shimo^{1,2}, Kazuhiro Marumoto^{1,2,3}

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P-73 Operando ESR study on charge accumulation and molecular orientation in n-type organic transistors with PhC₂-BQQDI

○Rei Kawakubo¹, Sayo Okabe¹, Taiki Sakaguchi¹, Yukihiro Shimo^{1,2}, Kazuhiro Marumoto^{1,2,3}

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P-74 ESR study of the interfacial modification layer of tin-lead perovskite solar cells: Toward clarifying the mechanism of their enhanced stability

○Shintaro Kaneko¹, Atsushi Sato¹, Yukihiro Shimo^{1,2}, Minh Anh Truong³, Tomoya Nakamura³,

Atsushi Wakamiya³, Kazuhiro Marumoto^{1,2,4}

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P-75 High frequency ESR measurements of multiferroics material $\text{Cu}_3\text{Nb}_2\text{O}_8$

○Yuma Hosomi¹, Shigeo Hara², Makoto Saga², Hitoshi Ohta³, Susumu Okubo^{1,3}, Yutaka Fujii⁴,
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P-76 Spin multiplicity of light-induced ESR signals in sintered $\text{BaZrO}_3\text{:M}$

○Kota Yamaji¹, Ikuko Akimoto¹, Masaya Nagai², Yuji Okuyama³, Hideto Matsuoka⁴

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P-77 Photo-induced Q-band ESR signals of $\text{BaZrO}_3\text{:M}$ powder

○Ikuko Akimoto¹, Kota Yamaji¹, Masaya Nagai², Yuji Okuyama³, Hideto Matsuoka⁴

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P-78 Development and application of free space ESR

○Hiroyuki Nojiri

IMR., Tohoku Univ.

P-79 Research on NV^- center creation in Ib-type diamond with electron beam irradiation (3)

○Seiichi Saiki, Nobumasa Miyawaki, Yuichi Yamazaki, Shinobu Onoda, Takeshi Ohshima
QUARC., QST

P-80 Effect of PDINO interfacial modification on charge transfer in perovskite solar cells

○Yizhou Chen¹, Seira Yamaguchi^{1,2}, Kaito Inoue¹, Atsushi Sato¹, Kazuhiro Marumoto^{1,2,3}

¹Dep. Mater. Sci., Univ. Tsukuba; ²OIQSST., Univ. of Tsukuba; ³TREMS, Univ. Tsukuba

P-81 Transient absorption magnetic field effect measurement from super cavity ring down

○Sae Fukui, Ayane Kannuki, Tsubasa Kimura, Hiroki Nagashima, Kiminori Maeda

Grad. Sch. of Sci. and Eng., Saitama Univ.