

PHOTON IMPACT
Photoionization of atoms or ions

- MO 001 **PCI AND INTERFERENCE EFFECTS IN THE EMITTED ELECTRON SPECTRA FOR EQUAL PHOTOELECTRON AND AUGER ELECTRON ENERGIES**
Sheinerman S.A. and Schmidt V.
- MO 002 **PCI EFFECTS IN SLOW PHOTOELECTRON SPECTRUM FOLLOWED BY CASCADE AUGER DECAY**
Sheinerman S.A.
- MO 003 **FIELD NARROWING OF RYDBERG RESONANCES IN PROCESSES OF THREE-PHOTON IONIZATION**
Ivanov G.K., Golubkov G.V., and Manakov D.M.
- MO 004 **DISPERSION AND QUANTUM COHERENCE**
Madsen L.B. and Taulbjerg K.
- MO 005 **DIRECT IONISATION OF N ELECTRONS THROUGH ABSORPTION OF A SINGLE PHOTON: ELECTRON CONTINUUM CORRELATION**
Malcherek A.W. and Briggs J.S.
- MO 006 **HELIUM DOUBLE PHOTOIONIZATION BY THE CONVERGENT CLOSE COUPLING METHOD: THE ROLE OF THE GROUND STATE CORRELATIONS**
Kheifets A.S. and Bray I.
- MO 007 **DOUBLE PHOTOIONIZATION OF NEON STUDIED USING COLD TARGET RECOIL ION MOMENTUM SPECTROSCOPY**
Bräuning H., Dörner R., Cocks C.L., Prior M.H., Krässig B., Mergel V., Ullrich J., Unverzagt M., Bräuning-Demian A., Carnes K., Richard P., Dreuil S., and Schmidt-Böcking H.
- MO 008 **MOMENTUM SPACE IMAGING OF HELIUM DOUBLE PHOTOIONIZATION AT 20 eV EXCESS ENERGY**
Bräuning H., Dörner R., Cocks C.L., Prior M.H., Krässig B., Mergel V., Ullrich J., Unverzagt M., Bräuning-Demian A., Carnes K., Richard P., and Schmidt-Böcking H.
- MO 009 **L- AND M-SHELL EMISSION SPECTRA OF DE-EXCITATION CASCADES IN CORE-IONIZED ARGON**
Kochur A.G., Sukhorukov V.L., and Shevchenko Ye.B.
- MO 010 **CORRELATIONS EFFECT ON K-ABSORPTION SPECTRUM OF NEON**
Demekhin V.F. and Demekhina N.V.
- MO 011 **OBSERVABLES IN QUANTUM MECHANICS: CREATING SPIN POLARIZATION IN THE ABSENCE OF SPIN-ORBIT INTERACTIONS**
Kim Y.S. and Pratt R.H.
- MO 012 **THE BEST PHOTOIONIZATION SCHEME AND METHOD OF ISOTOPE SELECTIVE PHOTOIONIZATION OF YTTERBIUM MEDIA**
Mishin V.A.
- MO 013 **SOME ASPECTS OF PROPAGATION PHENOMENA AND ISOTOPE SELECTIVE PHOTOIONIZATION EFFICIENCY OF LENGTHY 3-LEVEL YTTERBIUM MEDIA**
Kuzmina M.A.
- MO 014 **THE CALCULATION OF HIGH ENERGY PHOTOIONIZATION CROSS SECTIONS FOR THE Be-ISOELECTRONIC SEQUENCE**
Berrington K., Quigley L., and Zhang H.

- MO 015 **VUV SPECTROSCOPY OF H⁺ NEAR THE H(n=2) THRESHOLD: FIRST EXPERIMENTAL OBSERVATION OF AN ADDITIONAL FESHBACH RESONANCE STRUCTURE BELOW THRESHOLD**
Andersen H.H., Balling P., Kristensen P., Petrunin V.V., Pedersen U.V., Aseyev S.A., and Andersen T.
- MO 016 **DISSOCIATION DYNAMICS OF HIGHLY-CHARGED MOLECULES AND CLUSTERS IN INTENSE LASER FIELDS**
Bhardwaj V.R., Safvan C.P., Rajgara F.A., and Mathur D.
- MO 017 **EXTREME RELATIVISTIC COMPTON SCATTERING BY K-SHELL ELECTRONS**
Florescu V. and Gavrilă M.
- MO 018 **PHOTOELECTRON ANGULAR DISTRIBUTIONS FROM INNER AND OUTER SUBSHELLS OF POSITIVE IONS OF LOW-Z ATOMS: SYSTEMATIC PROPERTIES**
McDaniel B. and Manson S.T.
- MO 019 **R-MATRIX CALCULATION OF PHOTOIONIZATION WITH EXCITATION OF GROUND STATE NEON**
Zhou H.-L., Manson S.T., Voký L., and Faucher P.
- MO 020 **A STUDY OF PHOTOELECTRON ANGULAR DISTRIBUTIONS IN ATOMS AND MOLECULES USING A NEW MAGNETIC ANGLE-CHANGING TECHNIQUE**
Cubic D., Thompson D.B., Cooper D.R., King G.C., and Read F.H.
- MO 021 **CIRCULAR DICHROISM IN FRAGMENTATION PATTERNS FOR DIRECT DOUBLE PHOTOIONIZATION OF XENON**
Soejima K., Simbo M., Danjo A., Okuno K., Shigemasa E., and Yagishita A.
- MO 022 **POST-COLLISION INTERACTION EFFECTS INDUCED BY AUGER CASCADES FOLLOWING Kr L₃-SHELL IONIZATION**
Hayaishi T., Tanaka T., Yoshii H., Morioka Y., Murakami E., Shigemasa E., Yagishita A., and Koike F.
- MO 023 **INTERCHANNEL COUPLING AND THE BREAKDOWN OF THE INDEPENDENT PARTICLE APPROXIMATION IN PHOTOIONIZATION FAR ABOVE THRESHOLD**
Dias E.W.B., Chakraborty H.S., Deshmukh P.C., Manson S.T., Hemmers O., Glans P., Hansen D.L., Wang H., Whitfield S.B., Lindle D.W., Wehlitz R., Levin J.C., Sellin I.A., and Perera R.C.C.
- MO 024 **EXTENSIVE STUDY OF $2p_{1/2} \rightarrow ns, nd$ AUTOIONIZING RESONANCE IN THE NEON ISOELECTRONIC SEQUENCE**
Dias E.W.B., Chakraborty H.S., Deshmukh P.C., and Manson S.T.
- MO 025 **VALENCE $p_{1/2} \rightarrow ns, nd$ AUTOIONIZING RESONANCE IN THE XENON ISONUCLEAR SEQUENCE: A STUDY OF EIGENCHANNEL CHARACTER**
Dias E.W.B., Chakraborty H.S., Deshmukh P.C., and Manson S.T.
- MO 026 **RELATIVISTIC MULTICHANNEL QUANTUM-DEFECT THEORY STUDY OF $5p_{1/2} \rightarrow ns, nd$ AUTOIONIZING RESONANCE IN THE XENON ISOELECTRONIC SEQUENCE**
Dias E.W.B., Chakraborty H.S., Deshmukh P.C., and Manson S.T.
- MO 027 **LOW ENERGY VALENCE PHOTOIONIZATION IN THE NEON ISOELECTRONIC SEQUENCE: SOME IMPORTANT EFFECTS DUE TO Z VARIATION**
Chakraborty H.S., Dias E.W.B., Deshmukh P.C., and Manson S.T.
- MO 028 **VALENCE SHELL PHOTOIONIZATION IN BERYLLIUM**
Chakraborty H.S., Dias E.W.B., Deshmukh P.C., and Manson S.T.
- MO 029 **UTILITY OF IMPULSE APPROXIMATION IN COMPTON SCATTERING - LESSONS FROM THE MORE DIFFERENTIAL OBSERVABLES**
Kaliman Z., Suric T., Pisk K., and Pratt R.H.
- MO 030 **PHOTON YIELD SPECTRA IN THE 4d PHOTOIONIZATION OF Xe⁺, Xe²⁺ AND Xe³⁺**
Kojima T.M., Sano M., Watanabe N., Okuma R., Fujino A., Kitajima M., Itoh Y., Koizumi T., Oura M., Sekioka T., and Awaya Y.
- MO 031 **ANGULAR DISTRIBUTIONS IN THE PHOTOIONIZATION OF MERCURY INTO THE $^2S_{1/2}, ^2D_{5/2}, ^2D_{3/2}$ STATES OF Hg⁺**
Zubek M., Thompson D.B., Bolognesi P., Cooper D., and King G.C.
- MO 032 **ANGULAR MOMENTUM TRANSFER IN PHOTON-INDUCED PRODUCTION OF Ar⁺ ($3s^23p^44p^2L_j$) SATELLITES**
Mentzel G., Wilhelmi O., Magel B., Schartner K.-H., Vollweiler F., Lauer S., and Schmoranzner H.
- MO 033 **INNER-SHELL RESONANCE IN METASTABLE Ca⁺ IONS**
Gottwald A., Anger S., and Richter M.
- MO 034 **MULTIELECTRON TRANSITIONS IN PHOTOABSORPTION SPECTRA ABOVE THE Xe L EDGES**
Ito Y., Mukoyama T., Vlaicu A.M., Tochio T., Takahashi M., Emura S., and Azuma Y.
- MO 035 **CIRCULAR DICHROISM EFFECTS IN DPI OF He**
Viefhaus J., Avaldi L., Snell G., Wiedenhöft M., Hentges R., Rüdél A., Schäfers F., Menke D., Heinzmann U., and Becker U.
- MO 036 **THE Ne²⁺ AND Ar²⁺ SPECTRA OBSERVED BY TPESCO SPECTROSCOPY**
Avaldi L., Dawber G., Gulley N., Rojas H., King G.C., Hall R., Stuhec M., and Zitnik M.
- MO 037 **PHOTOIONIZATION OF THE $3p^4^3P, ^1D, ^1S$ STATES OF NEUTRAL SULFUR**
Tayal S.S.
- MO 038 **DENSITY-FUNCTIONAL THEORY WITH OPTIMIZED EFFECTIVE POTENTIAL AND SELF-INTERACTION CORRECTION FOR AUTOIONIZING RESONANCES**
Tong X.-M. and Chu S.
- MO 039 **DOUBLE PHOTOIONIZATION OF He AT LOW AND INTERMEDIATE ENERGIES**
Tang J.Z. and Burgdörfer J.
- MO 040 **R-MATRIX MQDT TREATMENT FOR THE $2p \rightarrow ns, nd$ RESONANT PHOTOIONIZATION OF ARGON**
Gorczyca T.W. and Robicheaux F.
- MO 041 **ON THE SELECTIVITY OF LASER PHOTOIONIZATION OF LITHIUM ATOMS IN BEAM**
Il'in A.M., Moschevikin A.P., and Khakhaev A.D.
- MO 042 **FULLY DIFFERENTIAL CROSS SECTIONS FOR He PHOTO DOUBLE IONIZATION**
Dörner R., Feagin J., Cocke C.L., Mergel V., Spielberger L., Vogt T., Bräuning H., Jagutzki O., Ullrich J., Unverzagt M., Khemliche H., Prior M.H., and Schmidt-Böcking H.
- MO 043 **THE RATIO OF DOUBLE-TO-SINGLE IONIZATION OF HELIUM AFTER PHOTOABSORPTION AND COMPTON SCATTERING**
Spielberger L., Jagutzki O., Dörner R., Mergel V., Meyer U., Khayyat Kh., Vogt T., Achler M., Schmidt-Böcking H., Ullrich J., Unverzagt M., Moshhammer R., Schmidt W., Krässig B., Jung M., Kanter E.P., Gemmell G.S., Prior M.H., Khemliche H., and Cocke C.L.
- MO 044 **CALCULATIONS OF PHOTOIONIZATION CROSS SECTIONS USING A POLYNOMIAL EXPANSION OF THE GREEN OPERATOR**
Grozdanov T.P., Andric L., and McCarroll R.

- MO 045 **EXPERIMENTAL STUDY OF Ba $6sns$ AND $6pns$ RYDBERG SERIES**
Lu J. and Dai C.J.
- MO 046 **Ba $6p_{1/2}nd$ ($J = 1,3$) AUTOIONIZING SERIES**
Dai C.J. and Lu J.
- MO 047 **SPIN POLARIZATION PARAMETERS FOR AUGER TRANSITIONS WITH ARBITRARILY POLARIZED SYNCHROTRON RADIATION**
Kleiman U., Lohmann B., and Blum K.
- MO 048 **DYNAMIC SPIN POLARIZATION PARAMETERS FOR THE RESONANT Xe $N_{4,5}OO$ AUGER MULTIPLET**
Kleiman U., Lohmann B., Hergenbahn U., and Becker U.
- MO 049 **INTERFERENCE EFFECTS IN INNER SHELL DOUBLE PHOTOIONIZATION OF XENON**
Huetz A., Lablanquie P., Selles P., Malegat L., and Mazeau J.
- MO 050 **DICHROISM IN THE PHOTO DOUBLE IONIZATION OF HELIUM INVESTIGATED BY COLD TARGET RECOIL ION MOMENTUM SPECTROSCOPY (COLTRIMS)**
Mergel V., Achler M., Dörner R., Khayyat Kh., Azuma Y., Kambara T., Awaya Y., Zoran V., Nyström B., Berakdar J., Feagin J., Ullrich J., Muthig A., and Schmidt-Böcking H.
- MO 051 **ANGULAR CORRELATIONS IN AUGER CASCADES**
Kabachnik N.M. and Sazhina I.P.
- MO 052 **PHOTOELECTRON AND ION SPECTROSCOPY OF POLARIZED OXYGEN ATOMS**
Prümper G., Zimmermann B., Plotzke O., Kleinpoppen H., and Becker U.
- MO 053 **PARAMETRIZATION OF EXPERIMENTAL TRIPLE DIFFERENTIAL CROSS SECTIONS IN THE SYMMETRY FAVOURED DOUBLE PHOTOIONIZATION OF ARGON**
Malegat L., Selles P., Lablanquie P., Huetz A., and Mazeau J.
- MO 054 **MCHF CALCULATIONS OF AUTOIONIZATION RATES FOR HOLLOW LITHIUM STATES**
Vaeck N. and Godefroid M.
- MO 055 **THEORETICAL ANALYSIS OF MULTI-STEP POST-COLLISION INTERACTION IN AUGER CASCADE OF ARGON ATOMS**
Koike F.
- MO 056 **DOUBLE-RYDBERG STATES IN A NEGATIVE ION: PHOTOEXCITATION TO THE WANNIER-RIDGE REGION**
Petrunin V.V., Aseyev S.A., Kristensen P., and Andersen T.
- MO 057 **R-MATRIX WITH PSEUDO-STATES CALCULATION FOR SINGLE AND DOUBLE PHOTOIONIZATION OF HELIUM**
Marchalant P.J. and Bartschat K.
- MO 058 **THEORETICAL INVESTIGATION OF THE LOW-ENERGY DOUBLE-AUGER ELECTRON SPECTRUM IN Kr**
Kilin V.A., Schartner K.-H., Ehresmann A., and Schmoranzner H.
- MO 059 **PHOTON-INDUCED FLUORESCENCE SPECTROSCOPY AND PERTURBATION THEORY STUDY OF TRIPLE PHOTOIONIZATION OF Kr**
Kilin V.A., Schartner K.-H., Ehresmann A., Vollweiler F., and Schmoranzner H.
- MO 060 **HIGH-RESOLUTION STUDY OF THE SUBVALENCE ns -ELECTRON PHOTOIONIZATION OF Xe ATOMS IN THE VICINITY OF THRESHOLD**
Lauer S., Liebel H., Müller-Albrecht R., Steffes H., Vollweiler F., Schmoranzner H., Mentzel G., Wilhelmi O., Schartner K.-H., Lagutin B.M., Petrov I.D., and Sukhorukov V.L.
- MO 061 **A HIGH RESOLUTION, ANGLE RESOLVED STUDY ON THE EXCITATION AND DECAY OF DOUBLY EXCITED STATES IN NEON**
Wills A.A., Berrah N., Langer B., Farhat A., Humphrey M., Alshehri M., Nayandin O., Cubayness D., and Bozek J.D.
- MO 062 **COMPLETE CHARACTERIZATION OF THE Xe 4d PHOTOIONIZATION USING SPIN-RESOLVED ELECTRON SPECTROSCOPY**
Snell G., Hergenbahn U., Müller N., Drescher M., Viefhaus J., Becker U., and Heinzmann U.
- MO 063 **OBSERVED WINDOW RESONANCES BELOW STRONTIUM 6s SERIES LIMIT**
Yih T.S., Wu H.H., Chu C.C., and Fung H.S.
- MO 064 **RELATIVISTIC EFFECTS IN THE SUBVALENCE SHELL PHOTOABSORPTION OF RARE GASES**
Lagutin B.M., Demekhin Ph.V., Petrov I.D., and Sukhorukov V.L.
- MO 065 **FINAL ION-CHARGE RESOLVED 4d PHOTOELECTRON SPECTRA OF SAMARIUM**
Gerth Ch., Gottwald A., Luhmann T., Richter M., Zimmermann P., Kochur A.G., Sukhorukov V.L., and Petrov I.D.
- MO 066 **FINAL-STATE ATOMIC EFFECTS IN PHOTODETACHMENT OF H⁺ IN THE PRESENCE OF A STATIC ELECTRIC FIELD**
Bao M., Fabrikant I.I., and Starace A.F.
- MO 067 **EXCHANGE SHAKEOFF AND RETARDATION EFFECTS IN DOUBLE IONIZATION OF He BY PHOTONS**
Wang J., McGuire J.H., Burgdörfer J., and Qiu Y.
- MO 068 **STUDIES OF DOUBLY EXCITED STATES AND PHOTODETACHMENT IN NEGATIVE IONS**
Lindroth E. and Brandefelt N.
- MO 069 **DOUBLE PHOTOIONIZATION OF ALKALINE EARTH ATOMS**
Kazansky A.K. and Ostrovsky V.N.
- MO 070 **MAKING A LINK FROM IONIZATION-EXCITATION TO THE DOUBLE PHOTOIONIZATION OF HELIUM**
Wehlitz R., Sellin I.A., Hemmers O., Whitfield S.B., Glans P., Wang H., Lindle D.W., Langer B., Berrah N., Viefhaus J., and Becker U.
- MO 071 **OBSERVATION OF ANGULAR CORRELATION BETWEEN SUBSEQUENTLY EMITTED AUGER ELECTRONS**
Wehlitz R., Pibida L.S., Levin J.C., and Sellin I.A.
- MO 072 **FINITE ELEMENT TREATMENT OF TWO ELECTRON ESCAPE PROCESSES**
Meyer K.W., Greene C.H., and Esry B.D.
- MO 073 **R-MATRIX CALCULATION OF $1P^0$ DOUBLE-EXCITATION STATES IN HELIUM**
Zhou H.L., Manson S.T., Voky L., Faucher P., and Hibbert A.
- MO 074 **AUTOIONIZATION OF A HOLLOW LITHIUM STATE WITH EMPTY K- AND L-SHELLS**
Cubaynes D., Diehl S., Wuilleumier F.J., Kennedy E.T., Blancard C., Chung K.T., Voky L., Bizau J.-M., Morgan T.J., Berrah N., Bozek J., Schlachter A.S., Hibbert A., and Faucher P.
- MO 075 **FIRST OBSERVATION OF RYDBERG SERIES IN LITHIUM HOLLOW STATES**
Diehl S., Cubaynes D., Bizau J.-M., Wuilleumier F.J., Kennedy E.T., Voky L., Blancard C., Morgan T.J., Berrah N., Bozek J., Schlachter A.S., Hibbert A., and Faucher P.
- MO 076 **APPLICATION OF THE 6DIME: PHOTO DOUBLE-IONIZATION OF HELIUM**
Lucey S.P., Rasch J., Whelan Colm T., and Walters H.R.J.

- MO 077 **EXPERIMENTS COMBINING ELECTRON AND ION SPECTROMETRIES TO STUDY PHOTOIONIZATION PROCESSES IN ATOMIC IONS**
Bizau J.-M., Al Moussalami S., Blancard C., Cubaynes D., Diehl S., Obert J., Putaux J.-C., and Wuilleumier F.J.
- MO 078 **THRESHOLD STEPS IN THE PHOTOIONIZATION OF THE HEAVIER RARE GASES**
Cvejanovic S., Wightman J.P., and Reddish T.J.
- MO 079 **THE STUDY OF PHOTOEXCITED SHORT LIVED DOUBLY EXCITED STATES OF HELIUM VIA FLUORESCENT DECAY INTO METASTABLE STATES**
Odling-Smee M.K., Sokell E., MacDonald M.A., and Hammond P.
- MO 080 **ON THE PHOTOIONIZATION OF THE IODINE ATOM AND ITS IONS**
Amusia M.Ya., Cherepkov N.A., and Chernysheva L.V.
- MO 081 **THEORETICAL STUDY OF THE $3s3p^5nl$ SATELLITES OF ARGON**
Combet Farnoux F.
- MO 082 **USING X-RAYS TO PROBE THE ATOMIC CHARACTER OF METALS**
Drube W., Grehk T.M., Hansen J.E., and Åberg T.

ELECTRON-ATOM COLLISIONS

Inelastic processes

- MO 083 **KINEMATIC RESTRICTION ON ANGULAR DISTRIBUTION OF INELASTIC SCATTERING FRAGMENTS IN LAB FRAME OF REFERENCE**
Pop-Jordanov J. and Solov'ev E.A.
- MO 084 **AN INVARIANT GRAPHICAL METHOD FOR SETTING UP THE CLOSE-COUPPLING EQUATIONS**
Wang J.B., Stelbovics A.T., and Williams J.F.
- MO 085 **A COMPUTER ALGEBRA SOLUTION TO THE FIRST BORN APPROXIMATION FOR ELECTRON-HYDROGENIC-ATOM SCATTERING USING MAPLE V**
Blackett A.J. and Stelbovics A.T.
- MO 086 **CONVERGENT CLOSE-COUPPLING CALCULATIONS OF EXCITATION OF THE HYDROGEN $n \leq 4$ STATES BY ELECTRON IMPACT**
Bray I. and Stelbovics A.
- MO 087 **ELECTRON-IMPACT EXCITATION OF THE $n \leq 4$ STATES OF HYDROGEN**
Dunseath K.M., Le Dourneuf M., Terao-Dunseath M., and Launay J.-M.
- MO 088 **EXCITATION OF THE 2^2P STATE OF HYDROGEN BY ELECTRON IMPACT**
Yalim H.A., Dogan M., Cvejanovic D., and Crowe A.
- MO 089 **ELECTRON SCATTERING AT INTERMEDIATE ENERGIES**
Hudson E.T., Burke V.M., Burke P.G., and Scott M.P.
- MO 090 **A DISTORTED WAVE CALCULATION**
Onyango D.O. and Singh C.S.
- MO 091 **FIRST MEASUREMENTS OF INELASTIC ELECTRON SCATTERING OF HELIUM COVERING A COMPLETE ANGULAR RANGE FROM 0° TO 180°**
Cubric D., Mercer D., Channing J.M., Read F.H., and King G.C.
- MO 092 **ELECTRON IMPACT EXCITATION OF THE $H(3^2D)$ AND THE $He(3^1-3D)$ STATES FROM THE GROUND AND METASTABLE STATES**
Verma S. and Srivastava R.

- MO 093 **ELECTRON-IMPACT STUDY FOR THE 3^1S AND n^1P ($n=3-6$) LEVELS IN HELIUM**
Zhong Z.P., Feng R.F., Zhu L.F., Zhang X.J., Wu S.L., and Xu K.Z.
- MO 094 **MEASUREMENTS OF THE SINGLET-TRIPLET MIX RATIO IN $He(4^1-3F)$**
Mikosza A.G., Wang J.B., Rose H.K., and Williams J.F.
- MO 095 **ELECTRON IMPACT EXCITATION OF $4F$ STATES IN HELIUM**
Cvejanovic D., Lhagva O., and Crowe A.
- MO 096 **EXCITATION FUNCTIONS FOR PROCESSES INVOLVING BOTH ATOMIC ELECTRONS IN HELIUM**
Dogan M. and Crowe A.
- MO 097 **THE COMPRESSION OF THE TOTAL INFORMATION FOR THE CROSS SECTIONS OF ELECTRON IMPACT EXCITATION FROM THE GROUND AND METASTABLE STATES OF HELIUM**
Mityureva A.A. and Smirnov V.V.
- MO 098 **ELECTRON IMPACT CROSS SECTIONS FOR Ne**
Tsurubuchi S., Onuma K., and Arakawa K.
- MO 099 **R-MATRIX WITH PSEUDO-STATES CALCULATION FOR ELECTRON SCATTERING FROM NEUTRAL BERYLLIUM**
Bartschat K., Scott M.P., and Burke P.G.
- MO 100 **R-MATRIX WITH PSEUDO-STATES CALCULATION FOR ELECTRON SCATTERING FROM NEUTRAL BORON**
Marchalant P.J. and Bartschat K.
- MO 101 **ELECTRON IMPACT EXCITATION OF THE $np^5(n+1)p$ STATES OF Ne($n=2$), Ar($n=3$), Kr($n=4$) AND Xe($n=5$) ATOMS**
Kaur S., Srivastava R., McEachran R.P., and Stauffer A.D.
- MO 102 **ELECTRON IMPACT EXCITATION OF XENON**
Nakazaki S., Berrington K.A., Werner W.B., and Itikawa Y.
- MO 103 **OBSERVATION OF THE SUPERELASTIC ELECTRON SCATTERING ON THE METASTABLE Ba ATOMS**
Marushka V.I. and Shafranyosh I.I.
- MO 104 **STUDY ON THE EMISSION VUV SPECTRA OF BARIUM EXCITED BY ELECTRON-ATOM COLLISIONS**
Bogachev G.G. and Aleksakhin I.S.
- MO 105 **LINEAR VARIATION OF SMALL-ANGLE ELECTRON EXCITATION DIFFERENTIAL CROSS SECTIONS: AID TO MEASUREMENTS**
Felfli Z. and Msezane A.Z.
- MO 106 **ANOMALIES IN ZERO ANGLE ELECTRON DIFFERENTIAL CROSS SECTIONS IN He AND Cd**
Felfli Z. and Msezane A.Z.
- MO 107 **DETERMINATION OF SMALL-ANGLE ELECTRON DIFFERENTIAL CROSS SECTIONS FROM THEIR LARGER ANGLE MEASUREMENTS**
Felfli Z., Ozimba P., Msezane A.Z., Ester T., Kessler J., Zubek M., Gulley N., Danjo A., King G.C., and Marinkovic B.
- MO 108 **CONVERGENT-CLOSE COUPLING CALCULATIONS OF ELECTRON-MAGNESIUM SCATTERING**
Fursa D. and Bray I.
- MO 109 **SLOW ELECTRON SCATTERING BY STRONTIUM ATOMS**
Mandy J.A., Romanyuk M.I., and Shpenik O.B.
- MO 110 **CALCULATION OF ELECTRON EXCITATION OF Sr ATOM FROM METASTABLE STATES**
Gedeon V., Lengyel V., Zatsarinny O., and Kocher C.

- MO 111 **EXCITATION OF UNSTABLE ATOMIC SPECIES BY ELECTRON IMPACT**
Kedzierski W. and McConkey J.W.
- MO 112 **WANNIER ANALYTIC CONTINUATION TO HELIUM NEGATIVE ION RESONANCES**
Loughan A.M. and Crothers D.S.F.
- MO 113 **AN EXPERIMENTAL PROCEDURE FOR OBTAINING EJECTED-ELECTRON EXCITATION FUNCTIONS OF AUTOIONIZING STATES**
Borovik A., Breza E., Krasilinec V., and Vakula V.
- MO 114 **ELECTRON IMPACT CROSS SECTIONS OF SODIUM $2p^5 3s^2 \ ^2P$ AUTOIONIZING STATE FROM THRESHOLD TO 1.5 keV**
Feuerstein B., Grum-Grzhimailo A.N., and Mehlhorn W.
- MO 115 **ELECTRON IMPACT EXCITATION AND IONIZATION OF LASER-EXCITED SODIUM ATOMS $Na^*(7d)$**
Nienhaus J., Zatsarinny O.I., Dorn A., and Mehlhorn W.

ELECTRON-MOLECULE COLLISIONS

Excitation and ionization, experiment (diatomic molecules)

- MO 116 **ABSOLUTE DIFFERENTIAL AND INTEGRAL CROSS SECTIONS FOR ELECTRON IMPACT EXCITATION OF THE ELECTRONIC STATES OF NO: VALENCE STATES**
Campbell L., Brunger M.J., Cartwright D.C., Mojarrabi B., Green M., and Teubner P.J.O.
- MO 117 **ABSOLUTE DIFFERENTIAL AND INTEGRAL CROSS SECTIONS FOR ELECTRON IMPACT EXCITATION OF THE ELECTRONIC STATES OF NO: RYDBERG STATES**
Mojarrabi B., Campbell L., Cartwright D.C., Teubner P.J.O., Green M., and Brunger M.J.
- MO 118 **ELECTRON IMPACT EXCITATION OF CARBON MONOXIDE IN THE ENERGY REGION 8-18 eV**
Zubek M. and Wolinski P.
- MO 119 **ORIENTATION EFFECTS IN THE IONIZATION PLUS EXCITATION OF H_2 : A NEW (e-ep*) EXPERIMENT**
Edwards A.K., Zheng Q., Wood R.M., and Mangan M.A.
- MO 120 **BINARY (e,2e) SPECTROSCOPY OF OPEN SHELL MOLECULES: VALENCE SHELL BINDING ENERGY SPECTRA AND ORBITAL ELECTRON MOMENTUM PROFILES FOR MOLECULAR OXYGEN**
Zheng Y., Rolke J., Brion C.E., Wang Y.A., and Davidson E.R.
- MO 121 **ELECTRON IMPACT EXCITATION OF HIGHER ELECTRONIC STATES OF N_2**
Poparic G., Vivic M., and Belic D.S.
- MO 122 **RO-VIBRATIONALLY RESOLVED ELECTRON IMPACT EXCITATION CROSS SECTIONS OF THE METASTABLE $e^3\Pi_u$ STATE OF MOLECULAR HYDROGEN**
Murray A.J., Hammond P., and Harries J.R.
- MO 123 **MEASUREMENT OF ABSOLUTE DIFFERENTIAL CROSS SECTIONS FOR EXCITATION OF MOLECULAR HYDROGEN BY ELECTRON IMPACT: THE $b^3\Sigma_u^+ \leftarrow X^1\Sigma_g^+$ TRANSITION**
Shyn T.W. and Sweeney C.J.
- MO 124 **N_2^+ SPECTROSCOPY BY ELECTRON IMPACT AND THRESHOLD ELECTRONS COINCIDENCE TECHNIQUE**
Hochlaf M., Penent F., Hall R.I., Lablanquie P., and Eland J.H.D.

- MO 125 **EXPERIMENTAL ESTIMATE OF XENON DIMERS EXCITATION CROSS-SECTION FROM WEAKLY BOUND GROUND STATES BY ELECTRON IMPACT**
Gerasimov G., Zvereva G., and Krylov B.
- MO 126 **AUTOIONIZING TRANSITIONS FROM THE DECAY OF THE $1^3\Pi_u$ INNER-SHELL EXCITED STATES OF CARBON MONOXIDE BY ELECTRON IMPACT**
Almeida D.P., Dawber G., and King G.C.
- MO 127 **DISSOCIATIVE IONISATION OF D_2 BY FAST ELECTRONS**
Krishnakumar E. and Bapat B.
- MO 128 **ISOTOPE EFFECTS IN THE DYNAMICS OF DOUBLY EXCITED STATES OF MOLECULAR HYDROGEN AND DEUTERIUM AS STUDIED BY COINCIDENT ELECTRON-ENERGY-LOSS SPECTROSCOPY**
Uemura N., Odagiri T., Hirano Y., Makino Y., Kouchi N., and Hatano Y.
- MO 129 **OSCILLATOR STRENGTHS OF MOLECULAR HYDROGEN IN THE LYMAN AND WERNER BANDS**
Zhong Z.P., Feng R.F., Zhang X.J., Zhu L.F., Wu S.L., and Xu K.Z.
- MO 130 **ORBITAL IMAGING FOR CO BY ELECTRON MOMENTUM SPECTROSCOPY - COMPARISON WITH HIGH LEVEL MRSD-CI AND DFT CALCULATIONS**
Zhou S., Fan X., Chen X., Zheng Y., Brion C.E., and Davidson E.R.

Excitation and ionization, experiment (polyatomic molecules)

- MO 131 **AN ELECTRON MOMENTUM SPECTROSCOPY AND DENSITY FUNCTIONAL THEORY INVESTIGATION INTO THE VALENCE ELECTRONIC STRUCTURE OF TRANS 1,3 BUTADIENE**
Brunger M.J., Michalewicz M.T., McCarthy I.E., and Winkler D.A.
- MO 132 **ELECTRON IMPACT IONIZATION OF D_2O AND OD**
Tarnovsky V. and Becker K.
- MO 133 **ELECTRON IMPACT IONIZATION OF ND_x (x=1-3)**
Tarnovsky V., Deutsch H., and Becker K.
- MO 134 **ELECTRON IMPACT IONIZATION STUDIES OF ARGON AND KRYPTON CLUSTERS: APPEARANCE ENERGIES AS A FUNCTION OF CLUSTER SIZE**
Denifl G., Muigg D., Matejcik S., Stamatovic A., and Märk T.D.
- MO 135 **FRAGMENT ION-PHOTON COINCIDENCE MEASUREMENTS BY ELECTRON IMPACT ON ETHANE**
Furuya K., Ueda T., Koto E., and Ogawa T.
- MO 136 **THE STUDY OF IVR THROUGH FLUORESCENCE SPECTRA OF FLUOROBENZENE DERIVATES UNDER CONTROLLED ELECTRON-IMPACT EXCITATION**
Koto E., Furuya K., and Ogawa T.
- MO 137 **SCATTERED ELECTRON-FRAGMENT ION COINCIDENCE SPECTRA BY ELECTRON IMPACT ON NITROUS OXIDE**
Matsuo A., Furuya K., and Ogawa T.
- MO 138 **DYNAMICS AND KINEMATICS OF IONIZED SPECIES PRODUCTION: AN EFFECT OF DEUTERATED TARGET**
Snegursky A.V., Zavilopulo A.N., and Zapfel I.O.
- MO 139 **VALENCE ORBITAL MOMENTUM PROFILES AND BINDING ENERGY SPECTRA OF C_mH_m MOLECULES**
Chen X., Fan X., Deng J., Wang Y., and Zheng Y.

- MO 140 **INVESTIGATION OF THE SLOW ELECTRON INELASTIC INTERACTIONS WITH THYMINE MOLECULES**
Sukhoviya I.I., Shafranyosh I.I., and Shimon L.L.
- MO 141 **IONIZATION COEFFICIENT IN PROPANE AND ARGON-PROPANE MIXTURES**
Bronic I.K. and Grosswendt B.
- MO 142 **STUDY OF THE ELECTRONIC EXCITATION OF POLYMERS IN THE VUV: ELECTRON IMPACT EXCITATION OF THE MONOMERS OF PMMA AND POLYSTYRENE**
de Souza G.G.B., Rocco M.L.M., Lopes M.C.A., Lucas C.A., and Hollauer E.
- MO 143 **CROSS SECTIONS FOR ION FORMATION BY ELECTRON IMPACT ON FORMALDEHYDE**
Srivastava S.K. and Zheng S.-H.
- MO 144 **VUV OPTICAL ABSORPTION AND ELECTRON ENERGY LOSS SPECTROSCOPY OF BENZYL ALCOHOL**
Gingell J.M., Mason N.J., Zhao H., Walker I.C., and Siggel M.R.F.
- MO 145 **VUV OPTICAL ABSORPTION AND ELECTRON ENERGY LOSS SPECTROSCOPY OF FORMAMIDE**
Gingell J.M., Mason N.J., Zhao H., Walker I.C., and Siggel M.R.F.
- MO 146 **VUV OPTICAL ABSORPTION AND ELECTRON ENERGY LOSS SPECTROSCOPY OF CYCLOPROPANE**
Gingell J.M., Mason N.J., Zhao H., Walker I.C., and Siggel M.R.F.
- MO 147 **ELECTRONIC SPECTROSCOPY OF ACETONITRILE AND ACRYLONITRILE STUDIED BY SYNCHROTRON RADIATION AND ELECTRON-ENERGY-LOSS SPECTROSCOPY**
Motte-Tollet F., Ska M.P., Gingell J.M., and Mason N.J.
- MO 148 **ELECTRONIC SPECTROSCOPY OF SIMPLE AMINES STUDIED BY SYNCHROTRON RADIATION AND ELECTRON-ENERGY-LOSS SPECTROSCOPY**
Motte-Tollet F., Ska M.P., Gingell J.M., and Mason N.J.
- MO 149 **THE SPECTROSCOPY OF Cl_2O STUDIED BY SYNCHROTRON RADIATION AND ELECTRON IMPACT**
Motte-Tollet F., Ska M.P., Marston G., Walker I.C., Gingell J.M., Brown K.L., Kaminski L., and Mason N.J.
- MO 150 **CROSS SECTIONS FOR TOTAL AND DISSOCIATIVE IONIZATION OF CF_4 BY ELECTRON IMPACT**
Rao M.V.V.S. and Srivastava S.K.
- MO 151 **TOTAL AND DISSOCIATIVE-IONIZATION CROSS SECTION OF SF_6 BY ELECTRON-IMPACT**
Rao M.V.V.S. and Srivastava S.K.
- MO 152 **FRAGMENTATION OF CARBON DISULFID MOLECULE BY ELECTRON IMPACT**
Viktor Gy., Josifov G., and Kurepa M.V.
- MO 153 **ELECTRON COLLISION CROSS SECTIONS FOR DISILANE MOLECULE**
Nakamura Y.
- MO 154 **DISSOCIATIVE IONIZATION AND EXCITATION OF SrI_2 MOLECULES BY ELECTRON IMPACT**
Volovich P.N., Soskida M.T.I., Shimon L.L., Shterr I.A., and Konoplyov A.N.

ELECTRON-ION COLLISIONS

General

- MO 155 **ELASTIC SCATTERING OF ELECTRONS FROM POSITIVE IONS OF LOW-Z ATOMS: LOW ENERGY TO 100 eV**
Turner C.S., Manson S.T., and Inokuti M.
- MO 156 **ELASTIC 180° SCATTERING OF MONOENERGETIC ELECTRONS BY Mg^+ AND Ca^+ IONS**
Chernyshova I.V., Imre A.I., Kontros J.E., and Shpenik O.B.
- MO 157 **ON THE ELECTRON-IMPACT BROADENING OF SV LINES**
Dimitrijevic M.S. and Sahal-Bréchet S.
- MO 158 **ELECTRON IMPACT ON HIGHLY CHARGED IONS**
Currell F.J., Asada J., Nakamura N., Ohtani S., and Watanabe H.
- MO 159 **THE TOKYO ELECTRON-BEAM ION TRAP EXPERIMENTAL PROGRAM**
Ohtani S., Aseda J., Currell F.J., Fukami T., Hirayama H., Motohashi K., Nakamura N., Nojikawa E., Okazaki K., Shiraishi H., Sakurai M., Tada N., Tsurubuchi S., and Watanabe H.
- MO 160 **RADIATIVE AND ELECTRON-IMPACT COLLISIONAL RATES AND THE COLLISIONAL-RADIATIVE MODELING OF LOW TEMPERATURE PLASMAS**
Shaw J.A., Griffin D.C., Pindzola M.S., and Badnell N.R.
- MO 161 **A CROSSED BEAMS APPARATUS FOR STUDIES OF ELECTRON-ION SCATTERING PROCESSES**
Frank A., Müller A., Schippers S., and Timphus F.
- MO 162 **ELECTRON-HIGHLY CHARGED ION COLLISIONS IN A STRONG LASER FIELD: MULTIPHOTON STATIC + POLARIZATION BREMSSTRAHLUNG**
Astapenko V.A. and Kukushkin A.B.
- MO 163 **LOW ENERGY ELECTRON SCATTERING/BOUND STATE CALCULATIONS OF TITANIUM MONOXIDE IONS**
Ballance C.P., Higgins K., and Berrington K.A.
- MO 164 **ELECTRON-ION ELASTIC DIFFERENTIAL SCATTERING CROSS SECTIONS DERIVED FROM ELECTRON SPECTRA IN ION ATOM COLLISIONS**
Liao C., Hagmann S., Bhalla C.P., Grabbe S.R., Cocke C.L., and Richard P.
- MO 165 **LOW ENERGY ELECTRON - MOLECULAR ANION COLLISIONS STUDIED AT THE ASTRID HEAVY-ION STORAGE RING**
Pedersen H.B., Jensen M.J., Kella D., Schmidt H.T., Vejby-Christensen L., and Andersen L.H.

ION-MOLECULE OR ATOM-MOLECULE COLLISIONS

Electron transfer and ionization

- MO 166 **THE CONTINUUM DISTORTED WAVE APPROXIMATION FOR ELECTRON CAPTURE FROM H_2^+ TARGETS**
Busnengo H.F., Corchs S.E., and Rivarola R.D.
- MO 167 **SPIN-EXCHANGE AND CHEMI-IONIZATION, TAKING PLACE SIMULTANEOUSLY DURING THE ATOM-MOLECULE COLLISIONS: EXPERIMENTAL AND THEORETICAL CROSS SECTIONS**
Kartoshkin V.A. and Klementiev G.V.
- MO 168 **THE CHEMI-IONIZATION OF THE HALOGEN-HYDROGEN MOLECULES BY HELIUM METASTABLE ATOMS**
Kartoshkin V.A., Klementiev G.V., and Melnikov V.D.

- MO 169 **ORIENTATION EFFECTS IN MULTIPLE IONIZATION OF MOLECULES BY FAST IONS**
Werner U., Kabachnik N.M., Kondratyev V.N., and Lutz H.O.
- MO 170 **CHARGE TRANSFER BY H⁺ AND GROUND STATE O⁺ IONS IN COLLISIONS WITH VARIOUS CARBON CONTAINING MOLECULES IN keV ENERGY REGION**
Kusakabe T., Ashina K., Nakanishi H., Iida A., Tanaka Y., Nakai Y., Tawara H., and Sasao M.
- MO 171 **DEPENDENCE OF RADIATIVE STABILIZATION ON PROJECTILE CHARGE STATE AFTER DOUBLE ELECTRON TRANSFER IN SLOW, HIGHLY CHARGED ION-MOLECULE COLLISIONS**
Krok F., Tolstikhina I.Y., Sakaue H.A., Yamada I., Hosaka K., Kimura M., Nakamura N., Ohtani S., and Tawara H.
- MO 172 **INELASTIC PROCESSES IN SLOW K⁺-He, Ne, Ar, H₂, N₂ COLLISIONS**
Kikiani B.I., Lomsadze R.A., and Meskhi G.G.
- MO 173 **PENNING IONIZATION OF THE CO₂ MOLECULE BY Ne* (3³P_{2,0}) METASTABLE ATOMS**
Lescop B., Ben Arfa M., Cherid M., Le Coz G., Sinou G., Fanjoux G., Le Nadan A., and Tuffin F.
- MO 174 **ASYMPTOTIC THEORY OF TWO-ELECTRON EXCHANGE IN SLOW ION-MOLECULE COLLISIONS**
Lazur V.Yu., Janev R.K., Horvat P.P., Mihalina S.I., and Shuba Jo.M.
- MO 175 **STATE SELECTED CHARGE EXCHANGE PROCESSES INVOLVING O₂⁺ AND H₂⁺ IONS IN HYDROGEN AND OXYGEN GASES**
Irvine A.D. and Latimer C.J.
- MO 176 **MULTI-IONIZATION AND FRAGMENTATION OF CO BY FAST Xe⁴⁴⁺ IMPACT**
Caraby C., Adoui L., Grandin J.P., and Cassimi A.
- MO 177 **CHARGE TRANSFER RECOMBINATION PROCESS OF C³⁺ WITH HYDROGEN MOLECULE IN TPD-II PLASMA**
Iwasaki K., Kusakabe S., Takahara K., Namba S., and Sato K.
- MO 178 **COLLISION-ENERGY/ELECTRON-ENERGY RESOLVED TWO-DIMENSIONAL STUDY OF PENNING IONIZATION OF H₂ BY He*(2³S) METASTABLE ATOMS**
Yamakado H., Yamata T., Ogawa T., and Ohno K.
- MO 179 **COLLISION-ENERGY/ELECTRON-ENERGY RESOLVED TWO-DIMENSIONAL STUDY OF PENNING IONIZATION OF N₂ BY He*(2³S) METASTABLE ATOMS**
Ohno K., Ogawa T., Kishimoto N., and Furuhashi M.
- MO 180 **PENNING IONIZATION OF N₂ AND N₂O WITH He*(2³S) METASTABLE ATOMS STUDIED BY COLLISION ENERGY-RESOLVED ELECTRON AND OPTICAL SPECTROSCOPIES**
Yamakita Y. and Ohno K.
- MO 181 **CHARGE DEPENDENCE OF ONE AND TWO ELECTRON PROCESSES IN COLLISIONS BETWEEN HYDROGEN MOLECULES AND FAST PROJECTILES**
Wells E., Ben-Itzhak I., Carnes K.D., and Krishnamurthi V.
- MO 182 **VIBRATIONAL EXCITATION WITH CHARGE EXCHANGE IN SLOW COLLISIONS OF DOUBLY CHARGED IONS WITH DIATOMIC MOLECULES**
Dumitriu D., Lepusch P., Aumayr F., and Winter HP.
- MO 183 **CHEMICAL REACTIONS AND CHARGE TRANSFER PROCESSES OF MOLECULAR DICATIONS: DYNAMICS OF CF₂⁺⁺ + D₂, H₂, Ar, Ne FROM BEAM SCATTERING**
Herman Z., Dolejssek Z., Fárník M., and Zabka J.
- General**
- MO 184 **MULTIPLE SCATTERING APPROXIMATION IN FEW-BODY PROBLEM**
Pozdnev S.
- MO 185 **ℓ-MIXING AND DISSOCIATION PROCESSES IN SLOW COLLISIONS OF RYDBERG MOLECULES AND INERT-GAS ATOMS**
Golubkov G.V., Ivanov G.K., and Balashov E.M.
- MO 186 **INFLUENCE OF MOLECULAR IONS CONVERSION ON THE FORMATION OF SPIN-POLARIZED HYDROGEN ATOMS: THE POLARIZATION OF THE HYDROGEN MOLECULAR IONS**
Dmitriev S.P., Kartoshkin V.A., Klementiev G.V., and Melnikov V.D.
- MO 187 **THE ROTATIONAL POLARIZATION OF THE O₂ MOLECULES DUE TO COLLISIONS WITH THE HELIUM METASTABLE POLARIZED ATOMS**
Kartoshkin V.A., Klementiev G.V., and Melnikov V.D.
- MO 188 **SMALL ANGLE He⁰ + N₂ COLLISIONS**
Quintana E.J. and Pollack E.
- MO 189 **COUPLING OF THE CHLORINE VALENCE TRIPLET STATES INDUCED BY COLLISIONS WITH He ATOMS**
Lugovoj E.V. and Pravilov A.M.
- MO 190 **QUANTUM DYNAMICS STUDY OF H + O₂ REACTION: INTEGRAL CROSS SECTION AND THERMAL RATE CONSTANT**
Zhang Ya., Zhang Q., and Zhang Yi.
- MO 191 **ATOMIC MODEL POTENTIALS IN ION-H₂ COLLISIONS**
Elizaga D., Errea L.F., Gorfinkiel J.D., Illescas C., Macías A., Méndez L., Riera A., Rojas A., Dreizler R.M., Henne A., Kirchner T., Kroneisen O., and Lüdde H.J.
- MO 192 **AB INITIO STUDY OF SINGLE CHARGE TRANSFER IN ION-H₂ COLLISIONS**
Errea L.F., Gorfinkiel J.D., Macías A., Méndez L., and Riera A.
- MO 193 **IMPLEMENTATION OF THE SUDDEN APPROXIMATION EIKONAL METHOD IN ION-DIATOM COLLISIONS**
Errea L.F., Gorfinkiel J.D., Macías A., Méndez L., and Riera A.
- MO 194 **THREE-DIMENSIONAL GROUND AND EXCITED STATES ENERGY SURFACES OF H₃⁻ BASED ON AN ELECTRON-MOLECULE RESONANCE DESCRIPTION**
Belyaev A.K. and Domcke W.
- MO 195 **CROSS SECTIONS OF ONE ELECTRON COLLISIONS BETWEEN HEAVY PARTICLES (ATOMS, IONS AND CLUSTERS) AT INTERMEDIATE ENERGY USING A NEW PARAMETRIC POTENTIAL**
Mabong S., Maynard G., and Katsonis K.
- MO 196 **EXPERIMENTAL EVIDENCE FOR LONG-LIVED ArHe²⁺ RARE GAS DIMERS**
Ben-Itzhak I., Bouhnik J.P., Esry B.D., Gertner I., and Rosner B.
- MO 197 **A ROUTE TO CHAOS IN CLASSICAL ATOM-DIATOM COLLISIONS**
Pattard T. and Rost J.M.

- MO 198 **COLLISIONALLY INDUCED FRAGMENTATION OF
MACROMOLECULAR IONS USING A VOLTAGE LABELLING
TECHNIQUE**
Hughes I.G., Davies R.J.H., Merron B., Morozov V.A., and Williams I.D.
- MO 199 **ON THE PROTONATION OF WATER, DISSOCIATION OF H_3O^+ AND
ELECTRON TRANSFER BETWEEN H^+ AND H_2O**
Di Giacomo F., Nikitin E.E., Gianturco F.A., and Schneider F.
- MO 200 **ORIGIN OF VALIDITY OF DWBA IN REACTIVE COLLISIONS**
Choi N.N., Lee M.Ho, and Salk S.H.S.
- MO 201 **DE-EXCITATION OF $\bar{p}He^+$ BY COLLISION WITH RARE GAS ATOMS**
Watanabe T. and Teranishi Y.
- MO 202 **NEGATIVE ION-ENERGY DISTRIBUTIONS AND ION-NEUTRAL
REACTIONS IN SF_6 TOWNSEND DISCHARGES AT HIGH ELECTRIC
FIELD-TO-GAS DENSITY RATIOS (E/N)**
Rao M.V.V.S., Olthoff J.K., and Van Brunt R.J.
- MO 203 **TRANSLATIONAL KINETIC-ENERGY DISTRIBUTIONS OF POSITIVE
IONS PRODUCED IN TOWNSEND DISCHARGES OF SF_6 AT HIGH
ELECTRIC FIELD-TO-GAS DENSITY RATIOS (E/N)**
Rao M.V.V.S., Olthoff J.K., and Van Brunt R.J.
- MO 204 **FLUX FORMULATION FOR REARRANGEMENT COLLISIONS**
Tolstikhin O.I., Ostrovsky V.N., and Nakamura H.
- MO 205 **HYPERSPHERICAL ELLIPTIC COORDINATES FOR THE THEORY
OF LIGHT ATOM TRANSFER REACTIONS**
Tolstikhin O.I., Nobusada K., and Nakamura H.
- MO 206 **REGGE POLES AS COMPLEXE EIGENVALUES**
Sokolovski D., Tully C., and Crothers D.S.F.
- MO 207 **ENERGY DEPENDENCE OF THE ISOMERIZATION OF HCN^+ TO HNC^+
VIA ION MOLECULE REACTIONS**
Hansel A., Glantschnig M., Scheiring Ch., Lindinger W., and Ferguson E.E.
- MO 208 **ENERGY DEPENDENCE OF THE PROTON TRANSFER REACTIONS
 $H_3O^+ + CH_2O \leftrightarrow CH_2OH^+ + H_2O$**
Hansel A., Singer W., Wisthaler A., Schwarzmann M., and Lindinger W.

PHOTON IMPACT

Multiphoton processes in atoms, ions and molecules

- TU 001 **THE EFFECT OF AUTOIONIZATION ON (1+1')-PHOTON RESONANCE
ENHANCED MULTIPHOTON IONIZATION (REMPI) OF H_2 MOLECULES**
Khatun J. and Rai Dastidar K.
- TU 002 **AWOPI FROM THE EXCITED AUTOIONIZING STATE OF H_2 MOLECULE
ALTHOUGH IT IS NOT BEING PUMPED**
Adhya L. and Rai Dastidar K.
- TU 003 **ENERGETIC ATI SPECTRA OF He IN LPLF**
Chen B.Z.
- TU 004 **ENERGETIC ATI SPECTRA OF He IN CPLF**
Chen B.Z.
- TU 005 **DYNAMICS OF DOUBLE RYDBERG ATOMS**
Xu C.B., Zhao R.C., Huang W., Xue P., and Xu X.Y.
- TU 006 **EXACT NUMERICAL SIMULATION OF H_2^+ DISSOCIATIVE IONIZATION
IN AN INTENSE LASER-FIELD - BEYOND BORN-OPPENHEIMER**
Bandrauk A.D. and Chelkowski S.
- TU 007 **ANGULAR DISTRIBUTION IN ABOVE-THRESHOLD TWO-PHOTON
DETACHMENT OF H^-**
Sánchez I., Bachau H., and Martín F.
- TU 008 **ON THE EFFECTIVENESS OF THE NUCLEI AND ATOMS EXCITATION
BY NONTHERMAL COULOMB ACTION OF LASER PRODUCED FAST
SUBRELATIVISTIC OSCILLATING ELECTRONS DURING ACTION OF
SHORT POWERFUL POLARIZED LASER PULSE ON THE PERFECT
ORIENTED CRYSTAL**
Vysotskii V.I.
- TU 009 **FLOQUET APPROACH FOR MULTIPHOTON CALCULATIONS USING
ENHANCED PRECISION ARITHMETIC**
Gailitis A. and Karule E.
- TU 010 **„ENGINEERING“ MOLECULAR ELECTRON DENSITY DISTRIBUTIONS
WITH STRONG LIGHT FIELDS**
Vijayalakshmi K., Bhardwaj V.R., and Mathur D.
- TU 011 **TWO-COLOR RESONANCE IONIZATION MASS SPECTROMETRY OF
MERCURY: ISOTOPE SHIFTS AND HYPERFINE STRUCTURE
AT 253.7 nm**
Bisling P., Dederichs J., Neidhart B., and Weitkamp C.
- TU 012 **ON THE PECULIARITIES OF THE FOUR-PHOTON IONIZATION OF
NEUTRAL YTTERBIUM**
Gomonai A.I. and Zapesochny I.P.
- TU 013 **PHASE DEPENDENCE OF THREE-COLOUR TWO-PHOTON
IONIZATION OF HYDROGEN**
Fifrig M., Florescu V., and Maquet A.
- TU 014 **ASYMMETRIC ANGULAR DISTRIBUTION IN TWO-COLOUR
THREE-PHOTON IONIZATION OF HYDROGEN**
Fifrig M. and Florescu V.
- TU 015 **DEVELOPMENTS IN THE R-MATRIX-FLOQUET THEORY OF
MULTIPHOTON PROCESSES**
Glass D.H., Burke P.G., Noble C.J., and v.d. Hart H.W.
- TU 016 **FLOQUET FORMULATION OF TIME-DEPENDENT DENSITY FUNCTIO-
NAL THEORY FOR MULTIPHOTON PROCESSES IN INTENSE FIELDS**
Telnov D.A. and Chu S.

- TU 017 **THEORETICAL STUDY OF MULTIPLE HIGH-ORDER HARMONIC GENERATION BY INTENSE ULTRASHORT PULSED LASER FIELDS: A NEW GENERALIZED PSEUDOSPECTRAL TIME-DEPENDENT METHOD**
Tong X.-M. and Chu S.
- TU 018 **ISOTOPE-DEPENDENT EFFECTS IN AN AUTODETACHING RESONANCE IN HYDROGEN MINUS**
Rislove D.C., Bryant H.C., Gulley M.S., Srauss C.E.M., Funk D.J., Miller W.A., Zhao X.M., Stintz A., Kyrala G.A., and Ingalls W.B.
- TU 019 **CLOSE-COUPPLING EFFECTS IN THE PROBLEM OF IONIZATION OF ATOMS IN INTENSE LASER FIELD: ROLE OF FREE-FREE TRANSITIONS**
Presnyakov L.P.
- TU 020 **ENERGY-LOSS SPECTRA OF VIBRATIONALLY EXCITED SF₆ MOLECULES IN SF₆-Ar MIXTURES**
Markusev D.D., Jovanovic-Kurepa J., and Terzic M.
- TU 021 **MULTIPHOTON ABSORPTION IN GAS MIXTURES: MEASUREMENTS OF ROTATIONAL RELAXATION CROSS SECTIONS**
Terzic M., Markusev D.D., and Jovanovic-Kurepa J.
- TU 022 **TWO-PHOTON IONIZATION OF MAGNESIUM ATOM**
Haysak M.I., Bandurina L.A., Dovhanich M.M., and Zatsarinny O.I.
- TU 023 **ELECTRON DYNAMICS IN THE EXCITATION AND DECAY OF HIGHLY EXCITED THREE-BODY STATES**
Huang W., Rosen C., Seng M., Eichmann U., and Sandner W.
- TU 024 **MULTIPLE IONIZATION OF INDIUM ATOMS BY INTENSE LASER FIELDS**
Maeda H., Eichmann U., and Sandner W.
- TU 025 **RESONANT STRUCTURE OF MULTIPHOTON IONIZATION OF Ba ATOMS AT SIMULTANEOUS INFLUENCE OF TWO LASER FIELDS**
Bondar I.I.
- TU 026 **INFLUENCE OF STARK EFFECT ON MULTIPHOTON IONIZATION OF Sr AND Ba ATOMS IN INFRARED SPECTRAL RANGE**
Bondar I.I.
- TU 027 **MECHANISM OF DOUBLY-CHARGED IONS FORMATION UNDER THE MULTIPHOTON IONIZATION OF Ba ATOMS IN 17700-18900 cm⁻¹ SPECTRAL RANGE**
Dudich M.I.
- TU 028 **DOUBLE CHARGED IONS FORMATION AT MULTIPHOTON IONIZATION OF Ca ATOMS BY RADIATION OF LINEAR AND CIRCULAR POLARIZATION**
Suran V.V.
- TU 029 **MEASUREMENT OF MULTIPHOTON IONIZATION OF Sr⁺ AND Ba⁺ IONS CROSS-SECTIONS**
Suran V.V.
- TU 030 **ELECTRON WAVE PACKET DYNAMICS OF HYDROGEN ATOM AND HYDROGEN MOLECULAR ION IN AN ULTRASHORT STRONG LASER PULS**
Kawata I., Kono H., and Fujimura Y.
- TU 031 **COMPTON SCATTERING BY A HYDROGENIC ATOM IN AN ARBITRARY $|nlm\rangle$ STATE IN THE DIPOLE APPROXIMATION**
Marian A.T.
- TU 032 **HIGH INTENSITY LASER FRAGMENTATION OF VIBRATIONALLY EXCITED CO₂**
Sanderson J.H., Thomas R.V., Byran W.A., Newell W.R., Williams I.D., Langley A.J., and Taday P.
- TU 033 **MULTI-ELECTRON-DISSOCIATIVE-IONIZATION OF SF₆ IN HIGH INTENSITY FEMTOSECOND LASER PULSES**
Sanderson J.H., Thomas R.V., Bryan T.W., and Newell W.R.
- TU 034 **HARMONIC SHIFT INDUCED BY A FLUCTUATING LASER FIELD ON A TWO LEVEL ATOM**
Morales F., Fiordilino E., and Daniele R.
- TU 035 **RELATIVISTIC EFFECTS IN LASER-ATOM INTERACTIONS AT ULTRA-HIGH INTENSITIES**
Kylstra N.J., Ermolaev A.M., and Joachain C.J.
- TU 036 **"ATOMIC ANTENNA" IN MULTIPLE IONIZATION, ATI, AND HIGH-HARMONIC GENERATION**
Kuchiev M.Yu.
- TU 037 **MASS SPECTROSCOPY OF ENHANCED MULTIPHOTON IONIZATION OF Xe**
Alvarez I., Cisneros C., Yousif F.B., de Urquijo J., Juárez A., and Aguilar A.
- TU 038 **INFRARED MULTIPHOTON EXCITATION, DISSOCIATION AND IONIZATION OF C₆₀**
Hippler M., Quack M., Schwarz R., Seyfang G., Matt S., and Märk T.D.
- TU 039 **MULTIPHOTON DETACHMENT OF ELECTRONS FROM NEGATIVE IONS**
Gribakin G.F. and Kuchiev M.Yu.
- TU 040 **TWO-PHOTON IONIZATION OF METASTABLE DEUTERIUM IN RESONANCE WITH RYDBERG STATES**
Essarroukh N., Jureta J., Karangwa P.C., Urbain X., and Brouillard F.
- TU 041 **DOUBLE IONIZATION OF HELIUM IN KFR APPROXIMATION**
Tolmanov S.G., McGuire J.H., and Wang J.
- TU 042 **REMPI STUDIES AND ITS APPLICATION IN ANALYSING ELECTRON COLLISIONS WITH INDIVIDUAL MOLECULES IN SPECIFIC LASER QUANTUM STATES**
Kaminski L., Zhao H., Mason N.J., Jones N.C., and Gingell J.M.
- TU 043 **COLLECTIVE EFFECTS IN THE MULTIPHOTON IONIZATION OF ATOMIC HYDROGEN AT 243 nm**
Bowe P., O'Neill R.W., van der Burgt P.J.M., Slevin J.A., and Giammanco F.
- TU 044 **TWO-COLOUR INTENSITY MODULATION OF THE MULTIPHOTON IONIZATION OF ATOMIC HYDROGEN**
Bowe P., O'Neill R.W., van der Burgt P.J.M., Slevin J.A., Raczynski A., Zaremba J., and Chwirot S.
- TU 045 **IONIZATION AND DOUBLE EXCITATION OF HELIUM BY SHORT INTENSE LASER PULSES**
Scrinzi A. and Piraux B.
- TU 046 **RESONANCE PHOTOIONIZATION OF HELIUM ATOM EXPOSED TO STRONG ELECTROMAGNETIC FIELD**
Magunov A.I. and Strakhova S.I.
- TU 047 **TARGET DRESSING EFFECTS IN FREE-FREE TRANSITIONS IN HYDROGEN: TWO-COLOR TWO-PHOTON PROCESSES**
Cionga A. and Buica G.
- TU 048 **ELASTIC ELECTRON-HYDROGEN COLLISIONS IN A LASER FIELD**
Cionga A., Dimou L., and Faisal F.H.M.

- TU 049 **DISSOCIATIVE IONIZATION OF HYDROGEN MOLECULAR SYSTEMS IN LASER FIELDS**
Plummer M. and McCann J.F.
- TU 050 **ORIENTATION DEPENDENCE OF FIELD-IONIZATION OF THE HYDROGEN MOLECULAR ION**
Plummer M. and McCann J.F.

General

- TU 051 **CONTINUUM DISCRETIZATION WITH RESONANCE PSEUDOSTATES**
Kazansky A.K.
- TU 052 **OSCILLATOR STRENGTHS FOR ATOMS/IONS OF ASTROPHYSICAL IMPORTANCE**
Fleming J., Hibbert A., Bell K.L., Godefroid M.R., and Vaeck N.
- TU 053 **THE EXCITATION OF THE FIRST AND SECOND CONTINUUM OF XENON DIMERS**
Kuo C.T., Tseng H.C., Wang S.Y., Lee P.C., and Nee J.B.
- TU 054 **CONTROL OF DIATOMIC MOLECULAR PROCESSES**
Collins L.A., Kress J.D., and Walker R.B.
- TU 055 **MANY-ELECTRON EFFECTS IN ANOMALOUS ELASTIC SCATTERING OF LINEARLY POLARIZED X-RAY PHOTONS BY Xe NEAR THE K-EDGE**
Hopersky A.N., Yavna V.A., and Popov V.A.
- TU 056 **OSCILLATOR-STRENGTH SUM RULES FOR HELIUM AND MOLECULAR HYDROGEN: CORRECTIONS FOR THE EFFECTS OF HIGHER MULTIPOLES AND OF RELATIVISTIC KINEMATICS**
Berkowitz J. and Inokuti M.
- TU 057 **SEMICLASSICAL TREATMENT OF BREMSSTRAHLUNG**
Laskin N.V. and Zhukov A.I.
- TU 058 **CALCULATION OF THE PROPERTIES OF Ca USING B-SPLINES**
Verbockhaven G. and Hansen J.E.
- TU 059 **TEMPERATURE DEPENDENT PHOTOABSORPTION CROSS SECTION MEASUREMENTS OF O₂ AT SIGNIFICANT AURORAL AND AIRGLOW EMISSION LINES**
Norén C., Ahmed S.M., and Kanik I.
- TU 060 **ELASTIC SCATTERING FROM POLARIZED ATOMS**
Carney J.P.J., Kissel L., and Pratt R.H.
- TU 061 **ELECTRON BREMSSTRAHLUNG FOR U⁹⁰⁺ IMPACT ON GAS TARGETS**
Ludziejewski T., Stöhlker Th., Bosch F., Dunford R.W., Franzke B., Kozhuharov Ch., Livingston A.E., Mokler P.H., Reich H., Stennar L., Rymuza P., Stachura Z., Swiat P., and Warczak A.
- TU 062 **ANALYZING DOUBLE IONIZATION BY COMPTON SCATTERING THROUGH THE ANGULAR DISTRIBUTIONS**
Kornberg M.A. and Miraglia J.E.
- TU 063 **GAUSSIAN STATISTICS OF MATRIX ELEMENTS BETWEEN CHAOTIC MANY-ELECTRON STATES IN COMPLEX ATOMS**
Gribakina A.A., Gribakin G.F., and Flambaum V.V.
- TU 064 **PROPERTIES OF DOUBLY EXCITED STATES**
Bürgers A., Brandefelt N., and Lindroth E.
- TU 065 **RYDBERG STATE SPECTROSCOPY OF HALOALKANES**
Motte-Tollet F., Ska M.P., Gingell J.M., Jones N.C., Kaminski L., Mason N.J., and Walker I.C.

- TU 066 **VUV ABSORPTION SPECTROSCOPY OF CHLORINE DIOXIDE**
Marston G., Walker I.C., Siggel M.R.F., Gingell J.M., Zhao H., and Mason N.J.
- TU 067 **VUV SPECTROSCOPY OF SIMPLE POLYCYCLIC AROMATIC HYDROCARBONS (PAHS)**
Mason N.J., Gingell J.M., Jones N.C., Kaminski L., Birrell A.R., Pontefract M., Ruffle D., Rawlings J., and Williams D.A.

ELECTRON-ATOM COLLISIONS

Ionization

- TU 068 **PROFILE OF AUTOIONIZATION RESONANCES IN ELECTRON-IMPACT IONIZATION PROCESSES**
Balashov V.V.
- TU 069 **THE INFLUENCE OF AUTOIONIZING STATES ON THE IONIZATION OF CADMIUM IN THE DISTORTED-WAVE BORN APPROXIMATION**
Madison D.H., Kravtsov V.D., Dent J.B., Peacher J.L., and Wilson M.
- TU 070 **ELECTRON-IMPACT STUDY IN VALENCE AND AUTOIONIZATION RESONANCE REGIONS OF MERCURY VAPOR**
Feng R.F., Ji Q., Zhu L.F., Wu S.L., Shi Q.C., Zhang X.J., Zhong Z.P., and Xu K.Z.
- TU 071 **SEMIEMPIRICAL CALCULATION OF THE THREE-ELECTRON CONFIGURATION EXCITATION ENERGIES**
Remeta E.Yu.
- TU 072 **TRIPLY EXCITED He⁻ RESONANCES**
Trantham K.W., Jacka M., Rau A.R.P., and Buckman S.J.
- TU 073 **ANGLE RESOLVED ELECTRON ENERGY LOSS STUDY OF THE INNER SHELL EXCITED STATES OF Ne**
Schröter C.D., Avaldi L., Camilloni R., and Stefani G.
- TU 074 **BREMSSTRAHLUNG SPECTRA OF 10-100 MeV PROTONS ON Kr**
Korol A.V., Lyalin A.G., and Solov'yov A.V.
- TU 075 **GIANT RESONANCES IN PHOTON EMISSION SPECTRA OF ELECTRONS ON Th AND U ATOMS**
Korol A.V., Lyalin A.G., Privalova A.V., Shulakov A.S., and Solov'yov A.V.
- TU 076 **BREMSSTRAHLUNG IN e[±] + H(ns) COLLISIONS**
Korol A.V., Obolensky O.I., and Solov'yov A.V.
- TU 077 **TOTAL BREMSSTRAHLUNG CROSS SECTIONS OF 1-25 keV ELECTRONS ON Kr**
Korol A.V., Lyalin A.G., and Solov'yov A.V.
- TU 078 **BREMSSTRAHLUNG SPECTRA OF 1-25 keV ELECTRONS AND POSITRONS ON Ne**
Korol A.V., Lyalin A.G., and Solov'yov A.V.
- TU 079 **ELECTRON BREMSSTRAHLUNG ON POSITIVE IONS**
Korol A.V., Lyalin A.G., and Solov'yov A.V.
- TU 080 **CHARACTERIZATION OF THE BREMSSTRAHLUNG SPECTRUM-BEYOND BORN APPROXIMATION**
Avdonina N. and Pratt R.H.
- TU 081 **A NEW FADDEEV-LIKE WAVE FUNCTION FOR THE DOUBLE-CONTINUUM PROBLEM**
Macri P.A., Miraglia J.E., Colavecchia F.D., Gasaneo G., and Garibotti C.R.
- TU 082 **AN APPROACH TO ELECTRON IMPACT IONIZATION THAT AVOIDS THE THREE-BODY COULOMB ASYMPTOTIC FORM**
McCurdy C.W., Byrum D.A., and Rescigno T.N.

- TU 083 **SEMI-CLASSICAL THRESHOLD LAW WHEN THE WANNIER EXPONENT DIVERGES**
Chocian P., Ihra W., and O'Mahony P.F.
- TU 084 **CONTINUUM DISTORTED WAVE APPROXIMATION FOR ELECTRON-ATOM IONIZATION**
Jones S. and Madison D.H.
- TU 085 **EVALUATION OF ELECTRON IMPACT IONIZATION CROSS SECTIONS WITH OPTICAL OSCILLATOR STRENGTHS AS THE ONLY INPUT**
Khare S.P.
- TU 086 **ELECTRON IMPACT IONIZATION AT THRESHOLD**
Roy Utpal and Sil N.C.
- TU 087 **SINGLY DIFFERENTIAL CROSS SECTION FOR ELECTRON-IMPACT IONIZATION OF HELIUM**
Roy A.C.
- TU 088 **DETERMINATION OF ABSOLUTE ELECTRON-IMPACT IONIZATION CROSS SECTIONS OF NEON AND ARGON**
Möbus B., Ulm G., Sorokin A.A., Shmaenok L.A., and Bobashev S.V.
- TU 089 **A SEMI-CLASSICAL METHOD FOR CALCULATING CROSS SECTIONS FOR THE MULTIPLE IONIZATION OF ATOMS BY ELECTRON IMPACT**
Deutsch H., Becker K., and Märk T.D.
- TU 090 **MULTIPLE IONIZATION OF ATOMS AND IONS BY ELECTRON IMPACT**
Shevelko V.P. and Tawara H.
- TU 091 **MULTIPLE IONIZATION CROSS SECTION OF KRYPTON BY ELECTRON IMPACT**
Almeida D.P.
- TU 092 **NEAR THRESHOLD e^- -H IONISATION WITHIN THE CLOSE COUPLING FRAMEWORK**
Scott M.P., Burke P.G., Bartschat K., and Bray I.
- TU 093 **ANGULAR DISTRIBUTION OF ELECTRONS IN $e+H(1^1S^0)$ IONIZATION**
Kato D. and Watanabe S.
- TU 094 **RENORMALIZATION COULOMB OPERATORS IN THE MULTICHANNEL SCATTERING THEORY OF CHARGED PARTICLES AND THEIR APPLICATION TO $(e,2e)$ CALCULATIONS**
Shablov V.L., Farnakeev I.V., and Popov Yu.V.
- TU 095 **ANALYSIS OF SOME FEATURES OF DIPOLAR HIGH ENERGY $(e,2e)$ IMPACT EXPERIMENTS**
Popov Yu.V., Knyr V.A., Nasyrov V.V., and Lahmam-Bennani A.
- TU 096 **STUDIES OF RADIAL AND ANGULAR ee -CORRELATIONS BY MEANS OF BINARY $(e,2e)$ AND $(e,3e)$ EXPERIMENTS**
Popov Yu.V., Dal Cappello C., and Kuzakov K.
- TU 097 **INFLUENCE OF EXCHANGE AND CAPTURE ON THE TRIPLE DIFFERENTIAL CROSS SECTION FOR IONIZATION OF HELIUM**
Najjari B. and Tavard C.
- TU 098 **EXPLORATION OF THE COPLANAR HELIUM $(e,2e)$ DIFFERENTIAL CROSS SECTION AT AND AROUND A SCATTERING ANGLE OF 0°**
Bowring N.J. and Read F.H.
- TU 099 **EXPLORATION OF A DEEP MINIMUM IN THE HELIUM $(e,2e)$ DIFFERENTIAL CROSS SECTION**
Bowring N.J. and Read F.H.
- TU 100 **EQUAL-ENERGY SHARING COPLANAR ELECTRON IMPACT IONIZATION OF HELIUM AT 44.6 eV**
Bray I., Fursa D., Röder J., and Ehrhardt H.
- TU 101 **DISTORTED WAVE EFFECTS AT LOW MOMENTUM IN $(e,2e)$ CROSS SECTIONS FOR d ORBITAL IONIZATION**
Brion C.E., Zheng Y., Rolke J., Neville J., Davidson E.R., and McCarthy I.E.
- TU 102 **EVOLUTION OF HELIUM $(e,2e)$ DIFFERENTIAL CROSS SECTION AT 64.6 eV IN NON-COPLANAR SYMMETRIC GEOMETRY WITH ASYMMETRIC ENERGIES**
Khajuria Y. and Tripathi D.N.
- TU 103 **ON THE IMPORTANCE OF SECOND - ORDER EFFECTS IN THE $(e,2e)$ EXCITATION - IONIZATION OF HELIUM**
Marchalant P., Whelan C.T., and Walters H.R.J.
- TU 104 **FIRST AND SECOND BORN CALCULATIONS OF $(e,2e)$ EXCITATION - AUTOIONIZATION OF HELIUM**
Marchalant P., Whelan C.T., and Walters H.R.J.
- TU 105 **SIMULTANEOUS IONIZATION AND EXCITATION OF HELIUM BY ELECTRON IMPACT**
Dogan M., Yalim H.A., Cvejanovic D., and Crowe A.
- TU 106 **ELECTRON IMPACT IONIZATION OF NEON AT LOW ENERGIES**
Rioual S., Rouvellou B., Röder J., Pochat A., Rasch J., Allan R.J., Walters H.R.J., and Whelan C.T.
- TU 107 **TRIPLE DIFFERENTIAL CROSS-SECTIONS OF ARGON IN SEVERAL $(e,2e)$ GEOMETRIES**
Rouvellou B., Rioual S., Röder J., Pochat A., Rasch J., Allan R.J., Walters H.R.J., and Whelan C.T.
- TU 108 **$(e,2e)$ INVESTIGATION OF Cd ELECTRON IMPACT IONIZATION**
Martin N.L.S., Bauman R.P., and Wilson M.
- TU 109 **INNER SHELL $(e,2e)$ MEASUREMENTS ON ARGON AND KRYPTON**
Cavanagh S.J., Haynes M.A., and Lohmann B.
- TU 110 **ARGON $2p_{1/2}$ AND $2p_{3/2}$ INNER SHELL $(e,2e)$ CROSS-SECTIONS**
Waterhouse D.K. and Williams J.F.
- TU 111 **$(e,3e)$ ELECTRONIC MOMENTUM SPECTROSCOPY A DIRECT STUDY OF THE CORRELATION IN THE MAGNESIUM ATOM**
El Ghazouani S., Hervieux P.A., Dal Capello C., Popov Y.V., Langlois J., and Sanchez I.
- TU 112 **ON THE MECHANISMS OF THE DOUBLE IONIZATION: A STUDY OF A TWO-STEP PROCESS**
El Mkanter R. and Dal Cappello C.
- TU 113 **AN $(e,3e)$ INVESTIGATION OF NEON**
Lahmam-Bennani A., Duguet A., Schröter C., El Marji B., Lecas M., and Spielberger L.
- TU 114 **$(e,3e)$ DIFFERENTIAL CROSS SECTION OF He(2^1S) AND He(2^3S)**
Srivastava M.K.
- TU 115 **MULTIPLY DIFFERENTIAL CROSS-SECTIONS FOR (e,ne) COLLISIONAL IONISATION OF ATOMS**
Malcherek A.W. and Briggs J.S.
- TU 116 **MEASUREMENT OF SPIN POLARIZED $(e,2e)$ PROCESSES**
Streun M., Baum G., Blask W., and Raith W.
- TU 117 **ORIENTATIONAL DICHROISM IN $(e,2e)$ REACTIONS WITH ORIENTED Na($3p$) ATOMS**
Dorn A., Berakdar J., Elliott A., Lower J., and Weigold E.
- TU 118 **SPIN RESOLVED $(e,2e)$ STUDIES ON XENON**
Dorn A., Elliott A., Lower J., Mazevet S., McCarthy I.E., and Weigold E.
- TU 119 **SPIN ASYMMETRIES IN THE TRIPLE DIFFERENTIAL CROSS SECTION OF XENON ATOMS**
Mette C., Herting C., and Hanne G.F.

- TU 120 **FINE STRUCTURE EFFECTS IN RELATIVISTIC (e,2e) COLLISIONS**
Besch K.-H., Sauter M., Nakel W., Ast H., Keller S., Dreizler R.M., Ancarani L.U., Whelan C.T., and Walters H.R.J.
- TU 121 **RELATIVISTIC (e,2e) PROCESSES ON THE $2p_{3/2}$ STATE OF HIGH-Z ATOMS**
Kull T., Schröter C.-D., Nakel W., Ast H., Keller S., Dreizler R.M., Walters H.R.J., Ancarani L.U., and Whelan C.T.
- TU 122 **INVESTIGATION OF RELATIVISTIC COULOMB BORN THEORY FOR RELATIVISTIC (e,2e) PROCESSES**
Ancarani L.U., Keller S., Ast H., Whelan C.T., Walters H.R.J., and Dreizler R.M.
- TU 123 **RELATIVISTIC K-SHELL IONISATION OF HEAVY ATOMS BY ELECTRON IMPACT: USE OF A RELATIVISTIC HELIUM-LIKE BOUND STATE WAVE FUNCTION**
El Messaoudi A., Joulakian B., and Bouchet J.
- TU 124 **DIFFERENTIAL CROSS SECTION FOR K-SHELL IONIZATION OF Ag AND Cu BY 100 AND 140 keV ELECTRONS**
Ambrose V. and Quarles C.A.
- TU 125 **THE CALCULATION OF THE ION-ATOM AND ELECTRON-ATOM HIGH ENERGY TOTAL CROSS SECTION IN THE EIKONAL APPROXIMATION**
Bilyk V.A. and Shablov V.L.
- TU 126 **SECOND-ORDER EFFECTS IN THE R-MATRIX FORMULATION OF ELECTRON-IMPACT IONIZATION**
Reid R.H.G., Bartschat K., and Raeker A.
- ELECTRON-ION COLLISIONS**
Recombination
- TU 127 **RADIATIVE FORMATION OF H AND D IN COLLISION OF SUPER COOL ELECTRON WITH PROTON AND DEUTERON - A FIELD THEORETIC APPROACH**
Bhattacharyya S., Roy A., and Mitra S.
- TU 128 **LOW TEMPERATURE DISSOCIATIVE RECOMBINATION OF ELECTRONS WITH H_2^+ , HD^+ , D_2^+ MOLECULAR IONS**
Golubkov M.G., Golubkov G.V., and Ivanov G.K.
- TU 129 **DISSOCIATIVE RECOMBINATION OF COLD HD^+ - BRANCHING RATIOS AND CURVES CROSSING**
Amitay Z., Zajfman D., Lange M., Schwalm D., Wolf A., and Urbain X.
- TU 130 **BRANCHING RATIOS AND RELATIVE CROSS SECTIONS FOR THE DISSOCIATIVE RECOMBINATION OF H_2O^+ , H_3O^+ AND CH_3^+**
Vejby-Christensen L., Andersen L.H., Heber O., Kella D., Pedersen H.B., Schmidt H.T., and Zajfman D.
- TU 131 **DISSOCIATIVE RECOMBINATION OF N_2^+ , O_2^+ AND NO^+**
Kella D., Vejby-Christensen L., Johnson P.J., Mokler P., Pedersen H.B., and Andersen L.H.
- TU 132 **DISSOCIATIVE RECOMBINATION OF MOLECULAR IONS WITH A 1-meV TEMPERATURE ELECTRON BEAM FROM A SUPER-CONDUCTING ELECTRON COOLER AT THE TARN II STORAGE RING**
Tanabe T., Katayama I., Ono S., Chida K., Watanabe T., Arakaki Y., Haruyama Y., Saito M., Odagiri T., Hosono K., Noda K., Honma T., Nomura I., and Takagi H.
- TU 133 **DETECTION AND PROPERTIES OF THE METASTABLE $a^1\Delta$ STATE IN OH^+ USING DISSOCIATIVE RECOMBINATION**
Strömholm C., Larson Å., Larsson M., Marian C., Rosén S., Schimmelpfennig B., Semaniak J., Wahlgren U., and van der Zande W.
- TU 134 **DISSOCIATIVE RECOMBINATION AND EXCITATION OF D_3^+ ; ISOTOPE AND ELECTRIC FIELD EFFECTS**
Larsson M., Danared H., Larson Å., Le Padellec A., Peterson J.R., Rosén S., Semaniak J., and Strömholm C.
- TU 135 **ROTATIONAL EFFECTS IN HD^+ DISSOCIATIVE RECOMBINATION: THEORETICAL STUDY OF RESONANT MECHANISMS AND COMPARISON WITH ION STORAGE RING EXPERIMENTS**
Schneider I.F., Strömholm C., Carata L., Urbain X., Larsson M., and Suzor-Weiner A.
- TU 136 **CLOSE-COUPPLING AND DISTORTED-WAVE CALCULATIONS FOR ELECTRON RECOMBINATION WITH ATOMIC IONS**
Gorczyca T.W., Badnell N.R., Pindzola M.S., and Robicheaux F.
- TU 137 **DISSOCIATIVE RECOMBINATION OF CH_3^+ ; TOTAL CROSS SECTIONS AND BRANCHING FRACTIONS**
Datz S., Rosén S., Strömholm C., Semaniak J., Larson Å., Le Padellec A., Djuric N., Peverall R., Danared H., and Larsson M.
- TU 138 **RECOMBINATION OF Au^{25+} AND U^{89+} WITH FREE ELECTRONS AT LOW ENERGIES**
Hoffknecht A., Uwira O., Frank A., Schennach S., Spies W., Wagner M., Brandau C., Knopp H., Schippers S., Müller A., Becker R., Kleinod M., Kozhuharov C., Franzke B., Steck M., Winkler T., Groening L., Bosch F., Stöhlker Th., Angert M., Mokler P.H., and Stachura Z.
- TU 139 **HIGH RESOLUTION DIELECTRONIC RECOMBINATION STUDIES WITH HIGHLY CHARGED IONS**
Schuch R., Zong W., DeWitt D.R., Badnell N., Gao H., Asp S., Mannervik S., Danared H., and Källberg A.
- TU 140 **CHARGE DEPENDENCE OF ENHANCED ELECTRON-ION RECOMBINATION RATES AT VERY LOW ENERGIES**
Gao H., Schuch R., Zong W., Justiniano E., DeWitt D.R., Lebius H., and Spies W.
- TU 141 **RECOMBINATION ENHANCEMENT IN COLLISIONS OF ELECTRONS WITH Au^{49+} , Au^{50+} , AND Au^{51+} IONS**
Uwira O., Bartsch T., Brandau C., Doerfert J., Graham W.G., Lebius H., Linkemann J., Müller A., Savin D.W., Schmitt M., Schuch R., Schwalm D., Wolf A., and Zong W.
- TU 142 **FIELD ENHANCED DIELECTRONIC RECOMBINATION OF Si^{11+} IONS**
Bartsch T., Danared H., De Witt D.R., Dunn G.H., Gao H., Linkemann J., Müller A., Pindzola M.S., Schuch R., Spies W., Wolf A., and Zong W.
- TU 143 **DIELECTRONIC RECOMBINATION OF GROUND-STATE AND METASTABLE Li^+ IONS**
Saghiri A.A., Linkemann J., Schmitt M., Schwalm D., Wolf A., Bartsch T., Hoffknecht A., Müller A., Graham W.G., Tanis J., Badnell N., and Price A.
- TU 144 **LASER-INDUCED ELECTRON-ION RECOMBINATION USED TO STUDY ENHANCED SPONTANEOUS RECOMBINATION DURING ELECTRON COOLING**
Schramm U., Wolf A., Schübler T., Schwalm D., Uwira O., Linkemann J., and Müller A.
- TU 145 **IRON L-SHELL DIELECTRONIC RECOMBINATION RATES FOR X-RAY PHOTOIONIZED NEBULAE: MEASUREMENT OF Fe^{17+} AND $Fe^{18+} \Delta n = 0$ DR**
Savin D.W., Saghiri A.A., Bartsch T., Chen M.H., Kahn S.M., Linkemann J., Müller A., Schippers S., Schmitt M., and Wolf A.
- TU 146 **RECOMBINATION OF U^{89+} IONS WITH FREE ELECTRONS AT THE ESR**
Brandau C., Hoffknecht A., Knopp H., Müller A., Kozhuharov C., Franzke B., Steck M., Winkler T., Groening L., Bosch F., Stöhlker Th., Mokler P.H., and Stachura Z.

- TU 147 **DIELECTRONIC RECOMBINATION OF LITHIUMLIKE GOLD: TOWARDS QED TESTS**
Brandau C., Bosch F., Dunn G., Franzke B., Hoffknecht A., Kozuharov C., Mokler P.H., Müller A., Nolden F., Schippers S., Stachura Z., Steck M., Stöhlker Th., Winkler T., and Wolf A.
- TU 148 **EXCITED ATOMS FROM DISSOCIATIVE RECOMBINATION OF O₂⁺**
Guberman S.L.
- TU 149 **DISSOCIATIVE RECOMBINATION OF COMPLEX IONS**
Lehfaoui L., Rebrion-Rowe C., Mitchell J.B.A., Laubé S., and Rowe B.R.
- TU 150 **DISSOCIATIVE RECOMBINATION AND EXCITATION OF N₂⁺: CROSS SECTIONS AND BRANCHING RATIOS**
Peterson J.R., Danared H., Dunn G.H., Larsson M., Larson Å., Le Padellec A., Peveroll R., Strömholm C., Rosén S., af Ugglas M., and van der Zande W.
- TU 151 **TIME-DEPENDENT WAVE PACKET STUDIES OF DISSOCIATIVE RECOMBINATION AND DISSOCIATION EXCITATION**
Orel A.E. and Kulander K.C.
- TU 152 **THE REASON OF LARGE CROSS-SECTION IN THE DISSOCIATIVE RECOMBINATION OF HeH⁺**
Takagi H.
- TU 153 **ACCURATE CALCULATIONS OF DIELECTRONIC RECOMBINATION RESONANCES**
Lindroth E.
- TU 154 **ELECTRONIC RECOMBINATION TO Be-LIKE IONS**
Darlington W.G.V., Reid R.H.G., and Berrington K.A.

ATOM-ATOM AND ION-ION COLLISIONS

Excitation

- TU 155 **FULL QUANTUM MECHANICAL AB INITIO TREATMENT OF LOW ENERGY INELASTIC ATOM-ATOM COLLISIONS: H+Na(3s)→H+Na(3p)**
Grosser J., Hahne J., and Menzel T.
- TU 156 **LASER ASSISTED ATOM-ATOM COLLISIONS IN A DIFFERENTIAL SCATTERING EXPERIMENT**
Grosser J., Hoffmann O., Rakete C., and Rebentrost F.
- TU 157 **COLLISION INDUCED RADIATIVE DEEXCITATION OF THE METASTABLE STATE: Hg(6³P₂) + He, Ne, Ar, Kr, Xe, H₂, D₂**
Lednev M.G. and Zagrebin A.L.
- TU 158 **REVERSE ENERGY POOLING IN LITHIUM UPON TWO-PHOTON EXCITATION OF 3D STATE**
Labazan I. and Milosevic S.
- TU 159 **REVERSE ENERGY-POOLING COLLISIONS: K(5D,7S)+Na(3S)→K(4P)+Na(3P)**
De Filippo G., Guldberg-Kjær S., Milosevic S., Pedersen J.O.P., and Allegrini M.
- TU 160 **He(n¹⁻³S, n¹⁻³P) STATES QUENCHING BY Eu AND Yb ATOMS**
Dimova E., Blagoev K., and Gruber D.
- TU 161 **OBSERVATION OF COLLISIONAL ENERGY TRANSFER FROM METASTABLE Cd ATOMS TO Na(4p ²P_j) ATOMS**
Musso M., Fuso F., De Filippo G., and Allegrini M.
- TU 162 **POPULATION DISTRIBUTION OF METASTABLE STATES OF NEODYMIUM ATOMS PRODUCED BY ELECTRON BEAM HEATING**
Ogura K. and Shibata T.

- TU 163 **ATOMIC FINE STRUCTURE EFFECTS IN THE THEORY OF SLOW COLLISIONS OF EXCITED ATOMS**
Yurova I.Yu.
- TU 164 **HYPERFINE CHANGE COLLISION IN TRAPPED Na-K MIXTURE**
Santos M.S., Nussenzveig P., Antunes A., Flemming J., and Bagnato V.S.
- TU 165 **IMPORTANCE OF THE Na(4p)+Na(3s) AND Cd(5p)+Na(3s) COLLISIONS IN THE ENERGY TRANSFER BETWEEN Cd* AND Na ATOMS**
Magnier S., Angeli C., Granucci G., Masnou-Seeuws F., Allegrini M., and Persico M.
- TU 166 **QUANTAL CALCULATIONS FOR COLLISIONS OF Ne*(2p⁵3p) WITH He(¹S₀): INTRAMULTIPLLET MIXING WITH POLARISATION EFFECTS AND ALIGNMENT RELAXATION**
Bahrim C., Kucal H., and Masnou-Seeuws F.

Ionization

- TU 167 **ASSOCIATIVE IONIZATION IN COLLISIONS OF STATE-SELECTED METASTABLE Ar*, Kr* AND Xe* ATOMS WITH HYDROGEN AND DEUTERIUM ATOMS**
Roth T.E., Movre M., Ruf M.-W., and Hotop H.
- TU 168 **ESTIMATES FOR CROSS SECTIONS OF ATOM MULTIELECTRON IONIZATION IN FAST ATOMIC COLLISIONS**
Voitkiv A.B.
- TU 169 **FORMATION OF NEGATIVE ION STATES IN He⁰+Ne⁰ COLLISIONS**
Planje W.G., Zwakhals C.J., Westerveld W.B., and Niehaus A.
- TU 170 **VIBRATIONAL STATE DISTRIBUTION OF Na₂⁺-IONS CREATED IN ULTRACOLD COLLISIONS**
Blangé J.J., Zijlstra J.M., Amelink A., Urbain X., Rudolph H., van der Straten P., Beijerinck H.C.W., and Heideman H.G.M.
- TU 171 **ASSOCIATIVE IONIZATION BETWEEN LASER EXCITED ATOMS: IS IT POSSIBLE TO CONTROL THE IONIZATION CHANNEL?**
Huynh B., Dulieu O., and Masnou-Seeuws F.
- TU 172 **INTERPRETATION OF TWO-COLOR PHOTOASSOCIATION SPECTROSCOPY EXPERIMENTS IN A COLD SODIUM SAMPLE: EVIDENCE FOR A ¹Π_u DOUBLY-EXCITED AUTOIONIZING STATE**
Dulieu O., Lett P.D., Jones K., Amiot C., and Masnou-Seeuws F.
- TU 173 **ELECTRON EMISSION IN ULTRACOLD COLLISIONS BETWEEN TWO METASTABLE HELIUM ATOMS**
Pieksma M., Woestenenk G., van der Straten P., and Niehaus A.
- TU 174 **PHOTO-ASSOCIATIVE AUTO-IONIZATION OF ULTRACOLD SODIUM: INTENSITY DEPENDENCE CLOSE TO RESONANCE**
Amelink A., v.d. Straten P., and Heideman H.G.M.
- TU 175 **ASSOCIATIVE IONIZATION IN He⁺-D⁺ COLLISION**
Naji A., Chenu J.P., Olamba K., Szücs S., and Brouillard F.
- TU 176 **ONE AND TWO ELECTRON DETACHMENT IN TWO NEGATIVE IONS COLLISION**
Chibisov M.I., Brouillard F., Cherkani M.H., Fussen D., and Yavlinskii Yu.N.
- TU 177 **TRANSFER IONIZATION IN H⁺+H⁺, He⁺⁺ COLLISIONS**
Chibisov M.I., Brouillard F., Szücs S., Cherkani M.H., Urbain X., and Fussen D.
- TU 178 **ASSOCIATIVE IONIZATION BETWEEN METASTABLE DEUTERIUM ATOMS IN THE ENERGY RANGE 0.02-2 eV**
Karangwa P.C., Essarroukh N., Jureta J., and Urbain X.

Electron transfer

- TU 179 **ANGULAR DIFFERENTIAL CROSS SECTION FOR CHARGE TRANSFER IN $\text{He}^+ + \text{He}^{2+}$ COLLISION**
Bhattacharyya S. and Mitra S.
- TU 180 **ANGULAR DIFFERENTIAL CROSS SECTION IN LIGHT ION - ION COLLISION**
Bhattacharyya S. and Bhattacharyya S.K.
- TU 181 **UNIFORM DESCRIPTION OF NONELASTIC ATOMIC SCATTERING IN THE CASE OF WEAK INTERACTION BETWEEN TWO QUASIMOLECULAR STATES**
Chesnokov E.A. and Devdariani A.Z.
- TU 182 **CONTROLLED FORMATION OF WEAKLY-BOUND ATOMIC NEGATIVE IONS BY ELECTRON TRANSFER FROM STATE-SELECTED RYDBERG ATOMS**
Reichert M., Ruf M.-W., Hotop H., Desfrancois C., and Fabrikant I.I.
- TU 183 **NEUTRALIZATION OF H^- IONS IN SLOW COLLISIONS WITH MULTIPLY CHARGED IONS**
Presnyakov L.P., Tawara H., and Uskov D.B.
- TU 184 **ASYMPTOTIC FORM OF EXCHANGE INTERACTION IN THE RELATIVISTIC TWO-COULOMB CENTRE PROBLEM**
Lazur V.Yu., Janev R.K., Horvat P.P., and Mihalina S.I.
- TU 185 **RATE COEFFICIENT FOR THE MUTUAL NEUTRALIZATION OF O^+ AND O^- IONS IN THE AFTERGLOW OF AN OXYGEN PLASMA**
Kadota K., Ishikawa T., Hayashi D., and Sasaki K.
- TU 186 **CHARGE EXCHANGE IN COLLISIONS BETWEEN SINGLY CHARGED HEAVY IONS**
Bajajova K., Wohlfahrt C., Krüdener S., Melchert F., v. Diemar K., Pfeiffer A., Huber K., and Salzborn E.
- TU 187 **EXPERIMENTAL STUDY OF SINGLE CHARGE TRANSFER BETWEEN Ar^{3+} , Ne^{3+} AND H^- (D^-)**
Chenu J.P., Naji A., Olamba K., Szücs S., and Brouillard F.

RELATED TOPICS

- TU 188 **IMPACT OF ION-NEUTRAL COLLISIONS ON PLASMA BEHAVIOUR IN RF DISCHARGES**
Shishkin A.G. and Shishkin G.G.
- TU 189 **OBTAINING BASIS OF ONE-ELECTRON FUNCTIONS FOR TAKING ELECTRON CORRELATIONS IN ATOMS INTO ACCOUNT**
Demekhin V.F., Demekhin Ph.V., Kochur A.G., and Demekhina N.V.
- TU 190 **THE CLASSICAL TRAJECTORIES METHOD IN THE THEORY OF COMPLEX MOLECULAR COLLISIONS AND IN THE SEMICLASSICAL THEORY OF RADIATION BY RELATIVISTIC ELECTRONS IN INHOMOGENEOUS EXTERNAL FIELDS**
Akhiezer A.I. and Shul'ga N.F.
- TU 191 **ON THE (n, ℓ, m) CLASSICAL MOMENTUM DISTRIBUTIONS**
Samengo I.
- TU 192 **A NEW WAY TO CALCULATE THE LAMB SHIFT IN TWO-ELECTRON SYSTEMS**
Bhatia A.K. and Drachman R.J.

- TU 193 **MEASUREMENT OF THE WAVELENGTH OF THE $2s^2S_{1/2} - 2p^2P_{1/2}$ TRANSITION IN Li-LIKE Ni**
Staude U., Horn D., Bosselmann Ph., Büttner R., Schartner K.-H., Mokler P.H., Livingston A.E., and Folkmann F.
- TU 194 **ELECTRONIC DISTRIBUTION OF ATOMIC AND MOLECULAR PHYSICS SOFTWARE USING WWW: THE COMPUTER PHYSICS COMMUNICATIONS INTERNATIONAL PROGRAM LIBRARY**
Scott N.S., Jackson C., and Burke P.G.
- TU 195 **LIFETIME MEASUREMENTS IN $n=2$ LEVELS OF HIGHLY-IONIZED PHOSPHORUS**
Vogel Vogt C.M., Berry H.G., Kukla K.W., and Livingston A.E.
- TU 196 **A NEW EXPRESSION FOR THE CENTER OF MASS IN RELATIVISTIC SYSTEMS**
Smith F.T.
- TU 197 **THE ENERGY OF SEPARATION AND ITS EFFECT ON DYNAMICS IN RELATIVISTIC SYSTEMS: FROM COLLISIONS TO COSMOS**
Smith F.T.
- TU 198 **CALCULATION OF ENERGY DIFFERENCES AND OSCILLATOR STRENGTHS FOR THE ELECTRIC-DIPOLE TRANSITIONS OF SULFUR**
Chen Z. and Msezane A.Z.
- TU 199 **NEW ANALYTICAL FITS FOR IONIZATION OF NEON BY ELECTRON IMPACT**
Godunov A.L., Ivanov P.B., and Zemtsov Yu.K.
- TU 200 **FOUR TRANSITIONS POINT NON-ADIABATIC MODELS**
Nesbitt B.S., Crothers D.S.F., and O'Rourke S.F.C.
- TU 201 **SCATTERING OF ENERGETIC PROJECTILES OFF HYDROGEN ATOMS**
Alt E.O., Kadyrov A.S., and Mukhamedzhanov A.M.
- TU 202 **ATTRACTIVE COULOMB T-MATRIX WITH CONVENIENT BOUND STATE POLE SEPARATION**
Alt E.O., Kadyrov A.S., and Mukhamedzhanov A.M.
- TU 203 **ELECTRON CORRELATION DYNAMICS IN ATOMIC COLLISIONS**
McGuire J.H. and Wang J.
- TU 204 **VUV SPECTROSCOPY OF FOIL EXCITED Al IONS**
Bhattacharya N., Bapat B., Krishnakumar E., and Kumar S.V.K.
- TU 205 **THE EFFECT OF THE SECONDARY ION-ION CHARGE EXCHANGE PROCESSES ON THE NEUTRALIZATION OF FAST PROTONS IN TOKAMAK PLASMA DURING NEUTRAL BEAM INJECTION**
Stepanov I.Yu., Khudoleev A.V., and Afanassiev V.I.
- TU 206 **$(2p)^2^3P$ STATE IN TWO ELECTRON ATOM**
Padhy B.
- TU 207 **FINE-STRUCTURE ENERGY LEVELS AND OSCILLATOR STRENGTHS OF Fe XI**
Deb N.C. and Tayal S.S.