

WORK-IN-PROGRESS POSTERS

MONDAY: FORT DEARBORN ROOM: CHEMICAL KINETICS

- 1F1-01 MECHANISM AND RATE CONSTANTS FOR THE DECOMPOSITION OF 1-PENTENYL RADICALS
Tsang, W.
- 1F1-02 DECOMPOSITION AND ISOMERIZATION OF 1-OCTYL RADICALS
McGivern, W.S., Manion, J.A., Tsang, W.
- 1F1-03 FLOW REACTOR STUDIES OF SURROGATE BIODIESEL FUELS
Marchese, A.J., Angioletti, M., Dryer, F.L.
- 1F1-04 COMPREHENSIVE KINETIC MECHANISMS FOR C₁ SPECIES COMBUSTION
Li, J., Zhao, Z., Kazakov, A., Dryer, F.L.
- 1F1-05 ON THE DERIVATION OF POLYURETHANE KINETICS PARAMETERS USING GENETIC ALGORITHMS
Rein, G., Herren, J.B., Fernandez-Pello, A.C., Urban, D.L.
- 1F1-06 REACTION PATHWAYS OF ESTERS IN NON-PREMIXED FLAMES
Schwartz, W.R., McEnally, C.S., Pfefferle, L.D.
- 1F1-07 NITRIC OXIDE FORMATION IN PREMIXED FLAMES OF LOW ENERGY FUEL CONTAINING AMMONIA
Ey, D., Ashman, P.J., King, K.D.
- 1F1-08 KINETIC MODEL OF PULVERIZED COAL COMBUSTION BASED ON SCT
Peifang, F., Huaichun, Z., Qingyan, F., Sanxia, X.
- 1F1-09 KINETIC MODELING AND SENSITIVITY ANALYSIS FOR CHROMIUM COMBUSTION IN HYDROGEN/AIR FLAME
Li, J., Yu, S., Lu, X.
- 1F1-10 KINETICS OF OH RADICAL REACTION WITH ACENAPHTHENE AND PHENANTHRENE
Ananthula, R., Yamada, T., Taylor, P.H.
- 1F1-11 FORMATION OF HO₂ IN PHOTOLYTICALLY INITIATED LOW TEMPERATURE OXIDATION OF DIMETHYL ETHER
Suzaki, K., Kanno, N., Tonokura, K., Koshi, M., Tezaki, A.
- 1F1-12 KINETIC STUDY ON PYROLYSIS FOR DECORATIVE WOODS IN POOR-OXYGEN ATMOSPHERE
Li, A., Sun, L., Wang, L., Li, R.
- 1F1-13 PYROLYSIS OF LIGHT HYDROCARBONS IN LABORATORY REACTORS
Østberg, M., Nielsen, O.K., Jensen, J.S., Kock, R.M., Rasmussen, S.H., Johnsson, J.E., Glarborg, P.
- 1F1-14 REACTIONS OF H-ATOMS WITH C₃H₄-ISOMERS
Akgül, G., Bentz, T., Hippler, H., Giri, B.R., Olzmann, M., Striebel, F.
- 1F1-15 A REMPI MASS SPECTROMETRIC AND MODELING STUDY OF SMALL PAH IN PREMIXED FUEL-RICH LOW-PRESSURE FLAMES
Kamphus, M., Kohse-Höinghaus, K., Braun-Unkhoff, M., Frank, P.
- 1F1-16 THERMAL DECOMPOSITION OF 1- AND 2-CHLOROALLYL RADICALS
Shestov, A.A., Knyazev, V.D.
- 1F1-17 MECHANISM AND RATE OF THE REACTION CH₃ + O – REVISITED
Hack, W., Hold, M., Hoyermann, K., Wehmeyer, J., Zeuch, T.
- 1F1-18 KINETIC STUDY ON THE REACTIONS OF HYDROGEN ATOMS WITH BUTANES AT HIGH TEMPERATURES
Shiina, H., Tanimura, S., Okada, Y., Inoue, K., Koshi, M., Tezaki, A.
- 1F1-19 TEMPERATURE DEPENDENT MEASUREMENTS OF THE REMOVAL OF SINGLET METHYLENE BY THE NOBLE GASES, N₂, SF₆ AND O₂
Blitz, M.A., Choi, N., Kovacs, T., Pilling, M.J., Seakins, P.W.
- 1F1-20 QUANTUM CHEMICAL CALCULATION OF THERMOCHEMICAL PARAMETERS AND EQUILIBRIUM ANALYSIS FOR CHROMIUM COMBUSTION IN H₂/AIR FLAME
Lü, X., Yu, S., Li, J., He, S.
- 1F1-21 AB INITIO STUDIES OF FORMATION MECHANISMS OF SILICON DIOXIDE (SiO₂) CLUSTERS
Rutz, L.K., Bockhorn, H.
- 1F1-22 DETERMINATION OF RATE COEFFICIENTS OF SO₂ + O + M → SO₃ + M REACTION
Hwang, S.M., Cooke, J.A., Dewitt, K.J., Rabinowitz, M.J.
- 1F1-23 ETHYL RADICAL SUBSTITUTION AND SHIFT REACTIONS WITH ALIPHATIC AND AROMATIC HYDROCARBONS
Rutz, L.K., Bockhorn, H., Bozzelli, J.W.

- 1F1-24 REACTIVITY EXTRAPOLATION FROM SMALL TO LARGE MOLECULAR SYSTEMS VIA ISODESMIC REACTIONS FOR TRANSITION STATES (RESLTR)
Knyazev, V.D.
- 1F1-25 KINETICS OF HYDROGEN ABSTRACTION BY HYDROXYL RADICAL OH + H-C(SP³) REACTION CLASS: AN APPLICATION OF THE REACTION CLASS TRANSITION STATE THEORY
Huynh, L.K., Truong, T.N.
- 1F1-26 KINETICS OF THE HYDROGEN ABSTRACTION REACTION CLASS $\bullet\text{CH}_3 + \text{H-C}(\text{SP}^3) \rightarrow \text{CH}_4 + \bullet\text{C}(\text{SP}^3)$: AN APPLICATION OF THE REACTION CLASS TRANSITION STATE THEORY
Kungwan, N., Truong, T.N.
- 1F1-27 OXIDATION OF CO BY SO₂: A THEORETICAL STUDY
Mackie, J.C., Bacskay, G.B.
- 1F1-28 WIDE-TEMPERATURE-RANGE KINETICS OF THE NH REACTIONS WITH H₂ AND CO₂. PRODUCTS OF THE CO₂ REACTION
Fontijn, A., Shamsuddin, M., Marshall, P., Anderson, W.R.
- 1F1-29 KINETICS OF ELEMENTARY REACTION IN NO-REBURNING MECHANISMS
Meyer, J.P., Hershberger, J.F.
- 1F1-30 IUPAC CRITICAL EVALUATION OF THERMOCHEMICAL PROPERTIES OF SELECTED RADICALS
Ruscic, B., Boggs, J.E., Burcat, A.G., Császár, A.G., Demaison, J., Janoschek, R., Martin, J.M.L., Morton, M.L., Rossi, M.J., Stanton, J.F., Szalay, P.G., Westmoreland, P.R., Zabel, F., Bérces, T.
- 1F1-31 THERMAL DECOMPOSITION STUDIES OF METHANOL AND ETHANOL
Yasunaga, K., Koike, T., Hidaka, Y.
- 1F1-32 MODELING OF BENZENE CHEMISTRY IN RICH PREMIXED ETHYLENE FLAMES AND COMPARISON WITH RICH ACETYLENE FLAMES
Dias, V., Renard, C., Van Tiggelen, P.J., Vandooren, J.
- 1F1-33 AN ELEMENTARY REACTION KINETIC MODEL OF THE GAS-PHASE FORMATION OF POLYCHLORINATED DIBENZOFURANS FROM CHLORINATED PHENOLS
Khachatryan, L., Asatryan, R., Dellinger, B.
- 1F1-34 PATHWAYS TO DIBENZOFURAN FORMATION VIA PHENOXY RADICAL DIMERS. A MOLECULAR MODELING STUDY
Asatryan, R., Davtyan, A., Sahakyan, L., Khachatryan, L., Dellinger, B.

FORT DEARBORN ROOM: REDUCED CHEMISTRY AND KINETICS TOOLS

- 1F2-01 ASYMPTOTIC ANALYSIS OF THE COMPUTATIONAL SINGULAR PERTURBATION REDUCTION METHOD FOR CHEMICAL KINETICS
Zagaris, A., Kaper, H.G., Kaper, T.J.
- 1F2-02 THE EFFECTS OF DIFFUSION ON CHEMICAL-KINETIC REDUCTION
Davis, M.J., Zagaris, A.S., Kaper, T.J.
- 1F2-03 AUTOMATIC REDUCTION OF *n*-HEPTANE AND *iso*-OCTANE OXIDATION MECHANISM USING LUMPING AND NECESSITY ANALYSIS
Ahmed, S.S., Moréac, G., Zeuch, T., Mauss, F.
- 1F2-04 COUPLING OF CHEMKIN AND MATLAB FOR HCCI COMBUSTION APPLICATION
Johansson, D., Andrae, J., Björnbohm, P.
- 1F2-05 THERMOKINETIC MODELING OF *n*-HEPTANE LOW-TEMPERATURE OXIDATION UTILIZING DETAILED AND REDUCED REACTION MECHANISMS
Kolaitis, D., Founti, M.
- 1F2-06 ADAPTIVE CHEMISTRY FOR REACTING FLOW SIMULATIONS
Oluwole, O., Bhattacharjee, B., Lu, P., Tolsma, J.E., Barton, P.I., Green, W.H.
- 1F2-07 REDUCTION OF A DETAILED CHEMICAL MECHANISM OF *iso*-OCTANE USING ANALYSES OF RATE AND SENSITIVITY OF REACTIONS
Saylam, A., Ribaucour, M., Carlier, M., Pitz, W., Minetti, R.
- 1F2-08 AUTOMATICALLY GENERATED DETAILED KINETIC MECHANISMS TO MODEL THE AUTO-IGNITION OF ALKANES FROM C₄ TO C₁₀
Conraud, V., Glaude, P.A., Bounaceur, R., Buda, F., Fournet, R., Battin-Leclerc, F.
- 1F2-09 AUTOMATED COMPARISON OF CHEMICAL KINETIC MECHANISMS
Rolland, S., Simmie, J.M.
- 1F2-10 RATE RECOVERY AND MODEL OPTIMISATION VIA A CHEMKIN INTEGRATED DYNAMIC TRUST REGION METHOD
Tang, W., Tranter, R.S., Brezinsky, K.
- 1F2-11 HOW CAN VERY DIFFERENT COMBUSTION MODELS PRODUCE SIMILAR RESULTS?
Zsely, I.G., Zador, J., Turanyi, T.
- 1F2-12 LUMPED KINETIC MODELS FOR ALKANE IGNITION AT LOW TEMPERATURES
Barckholtz, T. A.

- 1F2-13 TEMPERATURE-DEPENDENT FEATURE SENSITIVITY ANALYSIS OF FLAMES
Zhao, Z., Li, J., Kazakov, A., Dryer, F.L.
- 1F2-14 SCALING OF SAL'NIKOV'S REACTION: INVESTIGATING THE INTERACTION OF REACTION, DIFFUSION AND NATURAL CONVECTION
Campbell, A.N., Cardoso, S.S.S., Hayhurst, A.N.
- 1F2-15 MODELING OF INFLUENCE OF OSCILLATING BOUNDARY LAYER ON VOLUME PROCESSES AT ISOTHERMICAL COMBUSTION OF GASES IN FLOW
Sargsyan, G.A.
- 1F2-16 TRANSPORT PROPERTY IMPORTANCE IN COMBUSTION MODELING
Brown, N.J., Revzan, K.L.

FORT DEARBORN ROOM: MICROGRAVITY COMBUSTION

- 1F3-01 SOOTING LIMITS OF SPHERICAL METHANE DIFFUSION FLAMES IN MICROGRAVITY
Taylor, J.L., Sunderland, P.B., Sun, Z., Stocker, D.P., Urban, D.L., Chao, B.-H., Axelbaum, R.L.
- 1F3-02 BURNING AND SOOTING BEHAVIOR OF ETHANOL DROPLET COMBUSTION UNDER MICROGRAVITY CONDITIONS
Yozgatligill, A., Park, S.H., Choi, M.Y., Kazakov, A., Dryer, F.L.
- 1F3-03 CUP-BURNER FLAME EXTINGUISHMENT IN LOW GRAVITY
Takahashi, F., Linteris, G.T., Katta, V.R.
- 1F3-04 LOW-TEMPERATURE COMBUSTION: 2-D MODELING AND UNSTIRRED, STATIC EXPERIMENTS AT EARTH AND REDUCED GRAVITY
Foster, M., Pearlman, H.
- 1F3-05 EFFECTS OF SURROUNDING AIR TEMPERATURE ON SOOT DISTRIBUTION AND DEPOSITION CHARACTERISTICS IN LAMINAR DIFFUSION FLAMES NEAR SOLID WALLS IN MICROGRAVITY
Choi, J.H., Fujita, O., Tsuiki, T., Kim, J., Chung, S.H.
- 1F3-06 FLAME SPREAD RATES OF FUEL DROPLET ARRAYS WITH DIFFERENT VOLATILITIES IN MICROGRAVITY
Oyagi, H., Moriue, O., Mikami, M., Kojima, N., Kikuchi, M.
- 1F3-07 BURNING VELOCITY MEASUREMENTS OF MICROGRAVITY SPHERICAL SOOTING PREMIXED FLAMES USING RAINBOW SCHLIEREN DEFLECTOMETRY
Ibarreta, A.F., Sung, C.-J., Hirasawa, T., Wang, H.
- 1F3-08 ANALYTICAL MODELING OF SOOT SHELL STANDOFF RATIOS IN REDUCED-GRAVITY DROPLET COMBUSTION
Shaw, B.D., Dakka, S.M.
- 1F3-09 EFFECTS OF PRESSURE ON REDUCED-GRAVITY COMBUSTION OF HYDROXYLAMMONIUM NITRATE-METHANOL-WATER DROPLETS
Wei, J.B., Shaw, B.D.
- 1F3-10 COMBUSTION OF PROPANOL DROPLETS IN REDUCED GRAVITY
Dakka, S.M., Shaw, B.D.
- 1F3-11 EFFECTS OF BUOYANCY ON THE STRUCTURE AND COMBUSTION TEMPERATURES OF STRONGLY-PULSED, TURBULENT DIFFUSION FLAMES
Hermanson, J.C., Johari, H., Stocker, D.P., Hegde, U.G.
- 1F3-12 MODELING IGNITION OF SOLID COMBUSTIBLES IN NORMAL AND MICRO GRAVITY
Lautenberger, C.W., Rich, D.B., Yuan, Z.-G., Zhou, Y.Y., Fernandez-Pello, A.C.
- 1F3-13 COMPARISON OF CARBON DIOXIDE AND HELIUM AS FIRE EXTINGUISHING AGENTS FOR SPACECRAFT
Son, Y., Gokoglu, S., Ronney, P.D.
- 1F3-14 COMBUSTION OF UNSUPPORTED DROPLET CLUSTERS IN MICROGRAVITY
Ciobanescu, I., Ruff, G.A.
- 1F3-15 APPLICATION OF LASER-INDUCED INCANDESCENCE TO THE INVESTIGATION OF SOOT FORMATION IN LAMINAR DIFFUSION FLAMES UNDER MICROGRAVITY
Reimann, J., Will, S.
- 1F3-16 MEASUREMENTS OF ACETYLENE, ETHANE, ETHYLENE AND METHANE DIFFUSION FLAMES EXPOSED ELECTRIC FIELDS
Papac, M.J., Dunn-Rankin, D.
- 1F3-17 SOOT VOLUME FRACTION MEASUREMENTS IN A THREE DIMENSIONAL LAMINAR DIFFUSION FLAME ESTABLISHED IN MICROGRAVITY
Legros, G., Joulain, P., Vantelon, J.P., Fuentes, A., Torero, J.L.

FORT DEARBORN ROOM: *TURBULENT COMBUSTION MODELING*

- 1F4-01 VALIDATING RADIATION PREDICTION OF A TURBULENT METHANE FLAME BASED ON THE SMOOTH ABSORPTION COEFFICIENT MODEL
Chui, E.H., Runstedtler, A.M.
- 1F4-02 NUMERICAL SIMULATION OF A LABORATORY-SCALE TURBULENT V-FLAME
Bell, J.B., Day, M.S., Shepherd, I.G., Johnson, M., Cheng, R.K., Beckner, V.E., Lijewski, M.J., Grcar, J.F.
- 1F4-03 PRISM: DYNAMICAL DIMENSIONAL REDUCTION APPLIED TO CH₄ FLAME SIMULATIONS
Tonse, S.R., Day, M.S., Brown, N.J.
- 1F4-04 STRUCTURE OF H₂-AIR NON-PREMIXED TURBULENT FLAMES AT HIGH PRESSURE
Sarh, B., Belaradh, N., Gökalp, I.
- 1F4-05 COMBUSTION MODELING FOR COMBUSTION PROCESSES AND FLAME STABILIZATION OF TURBULENT LIFTED FLAMES
Kang, S., Yu, J., Kim, Y., Chung, J.-H., Ahn, D.-H.
- 1F4-06 LES-BASED FLAMELET MODELING FOR TURBULENT PREMIXED FLAMES
Kim, H., Park, S., Kim, Y., Park, N.
- 1F4-07 CONDITIONAL MOMENT CLOSURE FOR TURBULENT RECIRCULATING NON-PREMIXED FLAMES
Kim, G., Kang, S., Kim, Y., Ahn, K.-Y., Bilger, R.W.
- 1F4-08 LINEAR EDDY AND FLAMELET MODELING FOR TURBULENT NON-PREMIXED AND PARTIALLY PREMIXED FLAMES
Kim, H., Kang, S., Yu, Y., Kim, Y., Menon, S.
- 1F4-09 DIRECT NUMERICAL SIMULATION OF NON-PREMIXED COMBUSTION IN A TURBULENT WALL BOUNDARY LAYER
Wang, Y., Trouwé, A.
- 1F4-10 DNS OF AUTO-IGNITION IN NON-PREMIXED REACTING FLOWS USING MULTI-STEP HEPTANE CHEMISTRY
Lovas, T., Mastorakos, E.
- 1F4-11 THE RADIATION EFFECT IN THE FLAMELET MODEL
Yun, S., Thomson, M.J., Lightstone, M.F.
- 1F4-12 NON-PREMIXED TURBULENT JET MIXING USING LES WITH THE FMDF MODEL
Glaze, D.J., Frankel, S.H., Hewson, J.C.
- 1F4-13 COMPOSITION PDF CALCULATIONS OF TURBULENT LIFTED FLAMES OF H₂/N₂ ISSUING INTO A VITIATED CO-FLOW
Lu, L., Pope, S.B., Goldin, G.M.
- 1F4-14 TURBULENT LIFTED FLAME IN A VITIATED COFLOW INVESTIGATED USING JOINT PDF CALCULATIONS
Cao, R., Pope, S.B., Masri, A.R.
- 1F4-15 A NUMERICAL STUDY OF AUTO-IGNITION IN TURBULENT LIFTED FLAMES ISSUING INTO A VITIATED COFLOW
Gordon, R.L., Masri, A.R., Pope, S.B., Goldin, G.M.
- 1F4-16 MULTIPLE MAPPING CONDITIONING (MMC) MODELING OF PARTIALLY STIRRED REACTOR (PASR)
Wandel, A.P., Klimenko, A.Y., Ren, Z., Pope, S.B.
- 1F4-17 APPLICATION OF A HYBRID TURBULENCE MODEL IN NUMERICAL SIMULATION OF DIFFUSION FLAMES
Baburić, M., Basara, B., Duić, N.
- 1F4-18 APPLICATION OF THE TRANSPORTED SCALAR PDF APPROACH WITH LOCAL TIME STEPPING TO PILOTED JET DIFFUSION FLAMES
Merci, B., Naud, B., Roekaerts, D.
- 1F4-19 MODELING OF BUOYANCY IN AN ORIGINAL NON-LINEAR K-EPSILON TURBULENCE MODEL WITH APPLICATION TO FIRE RELATED FLOW
Van Maele, K., Merci, B.
- 1F4-20 PARTICLE METHOD *vs* STOCHASTIC FIELD METHOD FOR PDF MODELING OF A NON-PREMIXED JET FLAME
Naud, B., Jimenez, C., Merci, B., Roekaerts, D.
- 1F4-21 LEVEL SET DESCRIPTION OF THE FLAME HOLE DYNAMICS FOR SIMULATING TURBULENT FLAME LIFT OFF
Kim, J.H., Chung, S.H., Kim, W.B., Kim, J.S.
- 1F4-22 CONSIDERATION OF NUMERICAL REQUIREMENTS WITHIN A GENERALIZED REGIME DIAGRAM FOR PREMIXED COMBUSTION
Düsing, M., Sadiki, A., Janicka, J.
- 1F4-23 LARGE-EDDY SIMULATION OF A PREMIXED DUMP COMBUSTOR USING A FILTERED G-EQUATION APPROACH
Düsing, M., Sadiki, A., Janicka, J.
- 1F4-24 PREDICTION OF DYNAMIC AND MIXING CHARACTERISTICS OF DROP-LADEN MIXING LAYERS USING DNS AND LES
Okongo, N., Leboissetier, A., Bellan, J.

ILLINOIS ROOM: NEW CONCEPTS IN COMBUSTION TECHNOLOGY

- 115-01 THE EFFECTS OF MICROMIXING ON COMBUSTION EXTINCTION LIMITS FOR MICRO COMBUSTOR APPLICATIONS
Dumand, C., Sabel'nikov, V.A.
- 115-02 REQUIRED WALL TEMPERATURE FOR IGNITION OF C₃H₈/AIR AND CH₄/AIR MIXTURE FLOWING IN A HEATED NARROW CHANNEL
Kataoka, T., Kim, N.I., Yokomori, T., Maruyama, S., Maruta, K.
- 115-03 FLAMMABLE LIMITS OF STATIONARY FLAMES IN TUBES AT LOW PROESSURE
Kim, N.I., Kataoka, T., Maruyama, S., Maruta, K.
- 115-04 COMBUSTION IN A MINIATURE FOUR-STROKE IC ENGINE
Papac, J., Dunn-Rankin, D.
- 115-05 *IN SITU* FTIR MEASUREMENTS IN A MICRO-CHANNEL FLAME
Heatwole, S., Cadou, C.P., Buckley, S.G.
- 115-06 FLAME SPEED AND SHAPE IN SMALL COMBUSTION CHAMBERS
Tsuji, Y., Sprague, B., Walther, D., Pisano, A., Fernandes-Pello, A.C.
- 115-07 LIQUID FUEL COMBUSTION WITHIN POROUS INERT MEDIA
Marbach, T.L., Agrawal, A.K.
- 115-08 EXPERIMENTAL STUDY OF COMBUSTION PROCESS IN A HIGH ASPECT RATIO ENGINE
Kalina, P., Rusin M., Jarosinski, J.
- 115-09 CONTROL OF CONFINED NON-PREMIXED FLAMES USING A MICROJET
Sinha, A., Ganguly, R., Puri, I.K.
- 115-10 EFFECTS OF THERMAL PROPERTIES OF WALL ON STABILIZATION OF LAMINAR PREMIXED FLAME IN MICROSCALE AND MESOSCALE CHANNELS
Chakraborty, S., Mukhopadhyay, A., Sen, S.
- 115-11 SIMULATION AND CONTROL OF HEAT TREATMENT IN BATCH FURNACE WITH MILD COMBUSTION RADIANT TUBE BURNER
Tiwari, M.K., Mukhopadhyay, A., Sanyal, D.
- 115-12 MICROSCOPIC DIFFUSION FLAME STRUCTURES OBSERVED USING MICRO-FLAMES
Ida, T., Fuchihata, M.
- 115-13 MESOSCALE BURNER ARRAYS FOR GAS TURBINE REHEAT APPLICATIONS
Lee, S., Edwards, C.F., Bowman, C.T.
- 115-14 APPLICATION OF ADAPTIVE CONTROL TO REDUCE CYCLIC DISPERSION NEAR THE LEAN LIMIT IN A SMALL-SCALE, NATURAL GAS GENSET
Edwards, K.D., Wagner, R.M.
- 115-15 FLAME STABILIZATION AND EMISSION OF A SMALL SWISS-ROLL COMBUSTOR
Kim, N.I., Kato, S., Kataoka, T., Yokomori, T., Maruyama, S., Fujimori, T., Maruta, K.
- 115-16 A THERMALLY SELF-SUSTAINING MINIATURE SOLID OXIDE FUEL CELL
Ahn, J., Eastwood, C., Ronney, P.D., Zongping, S., Kwak, C., Haile, S.
- 115-17 INVESTIGATION OF THE NO EMISSION DURING HIGH TEMPERATURE AIR COMBUSTION (HTAC) OF LIGHT OIL
Wilk, R.K., Misztal, T., Szlęk, A., Maleczyk, K.
- 115-18 IGNITION OF METHANE/AIR MIXTURE BY CORONA DISCHARGE
Bellenoue, M., Labuda, S., Sotton, J., Leys, C.
- 115-19 PLASMA-FUEL SYSTEMS FOR ENHANCEMENT COAL GASIFICATION AND COMBUSTION
Karpenko, E.I., Messerle, V.E., Ustimenko, A.B.
- 115-20 SIMULTANEOUS REMOVAL PROCESS OF DIESEL PM AND NO_x BY A CORONA DISCHARGE REACTOR
Morimune, T.
- 115-21 INTAKE VALVE THERMAL BEHAVIOR DURING STEADY-STATE AND TRANSIENT S.I. ENGINE OPERATIONS
Nagarajan, G., Raja, P.
- 115-22 AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF FUEL CONCENTRATION FLUCTUATIONS ON NON-PREMIXED JET FLAMES
Pinder, T., Atreya, A.
- 115-23 A COMBINED OPTICAL AND IONIZATION TECHNIQUE FOR MEASUREMENT AND CHARACTERIZATION OF COMBUSTION GENERATED SUB-MICROMETER PARTICLES
Litton, C.D.
- 115-24 HYDROGEN SYNTHESIS VIA COMBUSTION OF FUEL RICH METHANE/AIR MIXTURES AT ELEVATED PRESSURE
Lemke, B., Roodhouse, C., Glumac, N., Krier, H.

- 115-25 EFFECT OF OXYGEN ENRICHED AIR ON THE LIFT-OFF AND FLAME STABILITY IN A COAXIAL NON-PREMIXED JET
Kwark, J.H., Jeon, C.H., Chang, Y.
- 115-26 TWO-PHASE FLOW NUMERICAL MODELING OF DIESEL SPRAY EVAPORATION IN A "STABILIZED COOL FLAME" ENVIRONMENT
Kolaitis, D., Founti, M.
- 115-27 DEVELOPMENT AND OPTIMISATION OF A MILD COMBUSTION FURNACE
Szegö, G.G., Dally, B.B., Nathan, G.J., Christo, F.C.
- 115-28 CHARACTERISTICS OF ION CURRENT OBTAINED FROM HIGH TEMPERATURE, LOW OXYGEN AIR COMBUSTION
Furukawa, J., Hashimoto, H., Nada, Y.
- 115-29 DEVELOPMENT OF SOYBEAN OIL-DERIVED AVIATION FUEL: PRELIMINARY STUDY RESULTS
Seames, W., Corporan, E., DeWitt, M., Larson, V., Ahmed, I., Reich, R., Monroig, O., Aulich, T., Mann, M.
- 115-30 IMPROVEMENT OF TRANSPORTABILITY FOR WOODY BIOMASS ENERGY
Fuchihata, M., Honjo, T., Ida, T., Sano, H., Nakata, Y., Ishimura, K.
- 115-31 A NOVEL CONCEPT FOR REALIZATION OF FUEL COMBUSTION PROCESSES IN INTERNAL COMBUSTION ENGINES
Shvangiragze, G.G., Gelenidze, G.M., Chikhradze, N.M.
- 115-32 FUEL DISPERSION BY SI MICROFABRICATED ELECTROSPRAY ATOMIZERS FOR SMALL SCALE COMBUSTORS
Deng, W., Li, X., Klemic, J., Reed, M., Gomez, A.

TUESDAY: 27 JULY 2004

FORT DEARBORN ROOM: POLLUTANTS: SOOT AND PAH

- 2F1-01 MONTE-CARLO SIMULATIONS OF SOOT PARTICLE FORMATION INCLUDING AGGREGATE-AGGREGATE COLLISIONS
Balthasar, M., Kraft, M., Frenklach, M.
- 2F1-02 SOOT FORMATION IN OSCILLATING AND STEADY DIFFUSION FLAMES UNDER ELEVATED PRESSURE
Hentschel, J., Bockhorn, H., Suntz, R.
- 2F1-03 EFFECTS OF NO₂ ON SOOT REDUCTION IN A LAMINAR PREMIXED ETHYLENE/AIR FLAME
McKeand, M., Menon, A., Lee, S.-Y., Saretto, S.R., Santoro, R.J.
- 2F1-04 INVESTIGATION OF THE OXIDATION OF SOOT IN A TWO-STAGE BURNER SYSTEM UTILIZING A SCANNING MOBILITY PARTICLE SIZER
Merrill, C.J., Lighty, J.S., Eddings, E.G., Sarofim, A.F.
- 2F1-05 STUDY OF THE EVOLUTION OF SOOT FROM VARIOUS FUELS
Yan, S.-H., Jiang, Y.-J., Marsh, N.D., Eddings, E.G., Sarofim, A.F., Pugmire, R.J.
- 2F1-06 SOOT GENERATION FROM JP-8 AND JP-8 + ADDITIVES AT DIFFERENT EQUIVALENCE RATIOS IN A DROPTUBE FURNACE
Preciado, I., Marsh, N.D., Eddings, E.G., Sarofim, A.F.
- 2F1-07 EXPERIMENTAL STUDY OF RADIATION HEAT TRANSFER EFFECTS ON SOOT FORMATION AND OXIDATION IN COFLOW LAMINAR DIFFUSION FLAMES
Lee, W., Nam, Y.W., Lee, C.B., Shin, H.D.
- 2F1-08 CHEMICAL EFFECTS OF CO₂ ADDITION ON SOOT FORMATION IN LAMINAR C₂H₄ DIFFUSION FLAMES
Mohammed, H., Xu, F.
- 2F1-09 SOOT CHARACTERIZATION BY LASER INDUCED INCANDESCENCE IN A HEAVY DUTY TRUCK ENGINE
Bougie, B., Ganippa, L.C., van Vliet, A.P., Dam, N.J., Meerts, W.L., ter Meulen, J.J.
- 2F1-10 MODELING OF THE INTERACTION OF HYDROGEN, OXYGEN AND HYDROCARBON PLASMAS WITH GRAPHITIC AMORPHOUS CARBON SURFACES USING COMBINED STOCHASTIC AND DETERMINISTIC PARTICLE TECHNIQUES
Kubota, A., Pitz, W.J., Westbrook, C.K.
- 2F1-11 SOOT REDUCTION USING NANOPARTICLE ADDITIVES
Petersen, E., Seal, S., Deshpande, S., Patil, S.
- 2F1-12 CHARACTERIZATION OF YOUNG SOOT IN INVERSE DIFFUSION FLAMES
Marsh, N.D., Santamaria, A., Sarofim, A.F., Eddings, E.G.
- 2F1-13 VALIDATION OF THE FLAMELET LIBRARY BASED SOOT MODEL USING REPRESENTATIVE INTERACTIVE FLAMELETS
Lehtiniemi, H., Netzell, K., Mauss, F.
- 2F1-14 SOOT CONCENTRATION AND TEMPERATURE MEASUREMENTS IN A NON-PREMIXED ANNULAR LAMINAR FLAME AT PRESSURES UP TO 4 MPA
Thomson, K.A., Gülder, Ö.L., Weckman, E.J., Fraser, R.A., Smallwood, G.J., Snelling, D.R.
- 2F1-15 TIME-RESOLVED LASER-INDUCED INCANDESCENCE AT ELEVATED PRESSURES
Hofmann, M., Bessler, W.G., Kock, B.F., Jander, H., Schulz, C.

- 2F1-16 SURFACE GROWTH, NUCLEATION AND SURFACE OXIDATION OF TEM-OBSERVABLE PRIMARY SOOT PARTICLES IN FLAMES
Kim, C.H., El-Leathy, A.M., Xu, F., Faeth, G.M.
- 2F1-17 OPTICAL MEASUREMENT OF SOOT PARTICLES IN A BURNER FLAME
Ishii, K., Tsuboi, T.
- 2F1-18 SOOT FORMATION IN DIFFUSION FLAMES OF METHANE-PROPANE MIXTURES
Trotter, S., Smallwood, G.J., Guo, H.G., Johnson, M.
- 2F1-19 EXPERIMENTAL INVESTIGATION OF SOOT FORMATION IN TURBULENT HYDROCARBON FLAMES
Yang, B., Koçylu, U.O.
- 2F1-20 TOXICITY OF COMBUSTION-GENERATED IRON-SOOT AEROSOL
Jung, H., Guo, B., Anastasio, C., Kennedy, I.
- 2F1-21 AN APPROACH TO UNDERSTANDING SOOT INCEPTION LIMITS IN COFLOW FLAMES
Kumfer, B.M., Skeen, S.A., Chen, R., Axelbaum, R.L.
- 2F1-22 GENERAL SOOT-TRACKING UTILITIES WITH HETEROGENEOUS KINETICS
Chou, C.-P., Ho, P., Meeks, E.
- 2F1-23 POLYCYCLIC AROMATIC HYDROCARBONS FROM THE COMBUSTION OF LIQUID JET FUELS
Marsh, N.D., Preciado, I., Yan, S., Eddings, E.G., Sarofim, A.F.
- 2F1-24 STRUCTURE OF A PROPADIENE/CH₄/O₂ PREMIXED LAMINAR FLAME
Dayma, G., Glaude, P.A., Gueniche, H.A., Fournet, R., Battin-Leclerc, F.
- 2F1-25 POLYNUCLEAR AROMATIC HYDROCARBON ANALYSIS FROM QUARTZ MICROPROBE MASS SPECTROMETRY AND MULTILINEAR REGRESSION USING SINGULAR VALUE DECOMPOSITION
Puccio, M.A., Miller, J.H.
- 2F1-26 PAHS IN FLAMES, IN DIESEL FUELS, AND IN DIESEL EMISSIONS
Dobbins, R.A., Fletcher, R.A., Benner, Jr., B.A., Hoefl, S.
- 2F1-27 EXPERIMENTAL INVESTIGATION OF PAH FORMATION AND FLAME EXTINCTION IN LAMINAR COUNTERFLOW NON-PREMIXED FLAMES
Kitajima, A., Hatanaka, T., Takeuchi, M., Miyadera, T., Torikai, H.
- 2F1-28 OXIDATION OF CATECHOL: CHARACTERIZATION OF DECOMPOSITION PRODUCTS
Ledesma, E.B., Thomas, S., Wornat, M.J.
- 2F1-29 POLYCYCLIC AROMATIC HYDROCARBON PRODUCTION FROM THE SUPERCRITICAL PYROLYSIS OF METHYLCYCLOHEXANE
Oña, J.O., Ledesma, E.B., Wornat, M.J.
- 2F1-30 FORMATION OF POLYCYCLIC AROMATIC HYDROCARBONS FROM THE OXIDATION OF CATECHOL [ORTHO-DIHYDROXYBENZENE]
Thomas, S., Ledesma, E.B., Wornat, M.J.
- 2F1-31 POLYCYCLIC AROMATIC HYDROCARBONS IDENTIFIED IN A SOOT EXTRACT FROM A DOMESTIC WOOD-BURNING STOVE OF HENAN PROVINCE, CHINA
Dardenne, A.D., Ledesma, E.B., Wornat, M.J.
- 2F1-32 MODELING OF PAH FORMATION IN LAMINAR PREMIXED FLAMES WITH C₁, C₂ AND C₆ FUELS
Goos, E., Braun-Unkhoff, M., Frank, P.
- 2F1-33 THERMAL DECOMPOSITION OF METHYLNAPHTHALENES
Lu, M., Yang, J.

FORT DEARBORN ROOM: POLLUTANTS: NO_x AND OTHERS

- 2F2-01 "SLUDGE FOR HEAT" CO-COMBUSTION OF SEWAGE SLUDGE WITH BIOMASS WASTES IN ATMOSPHERIC BUBBLING FBC
Kandefer, S., Pilawska, M., Żukowski, W., Baron, J.
- 2F2-02 THE EFFECT OF DIMETHYL ETHER OXIDATION ON THE NO-NO₂ CONVERSION IN A LOW-TEMPERATURE RANGE
Hori, M., Matsunaga, N., Otsuka, Y., Glaude, P.A., Marinov, N.
- 2F2-03 NITROGEN OXIDES REMOVAL USING REDUCING AGENT IN ARC PLASMA JET
Morimune, T., Ishibashi, Y., Banba, Y.
- 2F2-04 DESIGN OF REBURNING FUEL
Chen, W.-Y., Gathitu, B.B.
- 2F2-05 NO_x REBURNING TECHNOLOGY IN POROUS MEDIA
Afsharvahid, S., Dally, B.B., Christo, F.C.

- 2F2-06 ANALYSIS OF SYNGAS REBURN TECHNOLOGY FOR INDUSTRIAL BOILERS WITH ADVANCED CHEMICAL ENGINEERING MODELS
Falcitelli, M., Malloggi, S., Rossi, N., Tognotti, L.
- 2F2-07 STUDY OF NO/CHi/NHi CHEMICAL INTERACTIONS OCCURRING DURING NO_x ADVANCED GAS REBURNING TECHNOLOGIES
Marschallek, K., Gasnot, L., Pauwels, J.F.
- 2F2-08 KINETICS OF CATALYTIC NITROGEN OXIDE REACTIONS OVER BED MATERIAL FROM CFB BOILERS BURNING BIOMASS FUELS AND WASTES
Barišić, V., Klingstedt, F., Kilpinen, P., Hupa, M.
- 2F2-09 CHARACTERISTICS OF CH₄/O₂/CO₂ DIFFUSION FLAMES
Kim, H.S., Kim, H.K., Kim, Y.M., Ahn, K.Y., Lee, S.M.
- 2F2-10 CFD ANALYSIS OF NO_x REDUCTION BY NATURAL GAS ADDED TO COAL COMBUSTION
Yasur, Y., Spitz, N., Bar-Ziv, E., Chudnovsky, B.
- 2F2-11 PREDICTION OF NO_x FORMATION FROM PULVERIZED COAL BLENDS
Spitz, N., Yasur, Y., Bar-Ziv, E., Chudnovsky, B.
- 2F2-12 A NUMERICAL STUDY ON NO FORMATION IN LAMINAR COUNTERFLOW CH₄/AIR TRIPLE FLAMES
Guo, H., Liu, F., Smallwood, G.J.
- 2F2-13 EXPERIMENT ON LOW NO_x COMBUSTION CHARACTERISTICS BY FLUE GAS DILUTION IN AIR AND FUEL SIDES
Cho, E.-S., Chung, S.H.
- 2F2-14 RE-EXAMINATION OF THE SCALING LAWS FOR NO_x EMISSIONS FROM HYDROCARBON TURBULENT JET DIFFUSION FLAMES
Santos, A., Costa, M.
- 2F2-15 EXHAUST EMISSIONS OF STRONGLY-PULSED, TURBULENT DIFFUSION FLAMES
Hermanson, J.C., Johari, H., Ghaem-Maghani, E.
- 2F2-16 VARIATION OF EQUIVALENCE RATIO AND ELEMENT RATIOS IN FUEL-RICH AND FUEL-LEAN LOW-PRESSURE PREMIXED FLAMES
Pope, C.

FORT DEARBORN ROOM: PARTICULATE EMISSIONS AND ECOLOGICAL CONSEQUENCES

- 2F3-01 EMISSION OF PM_{2.5} FROM COMBUSTION OF SEWAGE SLUDGE
Zhang, L., Ninomiya, Y.
- 2F3-02 FORMATION OF PHENOLIC COMPOUNDS FROM PYROLYSIS OF TOBACCO AND TOBACCO COMPONENTS
McGrath, T.E., Meruva, N.K., Chan, W.G.
- 2F3-03 PM SOURCE ATTRIBUTION APPORTIONMENT USING ORGANIC SIGNATURES IN THE PASO DEL NORTE AIRSHED
Jaramillo, C., Lighty, J.S., Meuzelaar, H.
- 2F3-04 THE CHARACTERISTICS OF DIESEL PARTICLES EMISSIONS AND KINETICS OF OXIDATION USING BIODIESEL AS FUEL
Jung, H., Kittelson, D.B., Zachariah, M.R.
- 2F3-05 EXPERIMENTAL INVESTIGATION OF A DIRECT INJECTION DIESEL ENGINE WITH DIMETHYLCARBONATE BLENDED FUEL
Mohanraj, N., Nagarajan, G.
- 2F3-06 STUDY OF CHROMIUM AND IRON OXIDE NANOPARTICLES IN DIFFUSION FLAMES BY THERMOPHORETIC SAMPLING AND ELECTRON MICROSCOPY
Guo, B., Kennedy, I.M.
- 2F3-07 DETAILED KINETIC MECHANISM FOR HG OXIDATION
Lissianski, V., Starikovskii, A.Yu., Tsyganov, D.L., Zhukov, V.P.
- 2F3-08 HIGH TEMPERATURE SORPTION OF CESIUM AND STRONTIUM ON KAOLINITE POWDERS IN COMBUSTORS
Yoo, J.I., Shinagawa, T., Wood, J.P., Santoianni, D.A., King, C.J., Seo, Y.C., Wendt, J.O.L., Linak, W.P.
- 2F3-09 THE PRODUCTION OF NANO-PARTICLES OF MgO AND Al₂O₃ IN ATMOSPHERIC-PRESSURE FLAMES
Dennis, J.S., Fennell, P.S., Hayhurst, A.N.
- 2F3-10 INTEGRATED APPROACH TO MERCURY CONTROL
Lissianski, V., Seeker, R., Maly, P.
- 2F3-11 DEVELOPMENT OF AN ANALYTICAL SOLUTION FOR THE INTEGRAL (S-S) EQUATIONS FOR RADIATIVE TRANSFER THROUGH THE ATMOSPHERE, AND PREDICTION FROM THE SOLUTION OF: THE STANDARD ATMOSPHERE PROFILES OF TEMPERATURE, PRESSURE, AND DENSITY WITH HEIGHT FOR THE LOWER ATMOSPHERE
Essenhigh, R.H., Bailey, E.G.
- 2F3-12 ECOLOGICAL SITUATION AT FIRES IN MODERN DWELLING HOUSES OF RUSSIAN CITIES
Isaeva, L.K., Sulimenko, V.A., Sulimenko, S.V., Solov'ev, S.V., Yakerson V.I.

- 2F3-13 ENVIRONMENTAL CONTAMINATION BY DIOXANES DURING AND AFTER FIRES IN UNDERGROUND BUILDINGS AND CONSTRUCTIONS
Isaeva, L.K., Davydkin, N.F., Solov'ev, S.V., Sulimenko, V.A., Sulimenko, S.V., Yakerson, V.I.
- 2F3-14 FIRE INFLUENCE ON AGROCHEMICAL PROPERTIES OF PEAT
Isaeva, L.K., Kolytcheva, N.V., Solov'ev, S.V., Yakerson, V.I.
- 2F3-15 THE ECOLOGICAL CONSEQUENCES OF OIL BURNING BY THE EXAMPLE OF THE LARGE OIL PIPELINE DAMAGE IN RUSSIA
Dezhkin, V.O., Isaeva, L.K., Yakerson, V.I.

FORT DEARBORN ROOM: LAMINAR FLAME THEORY AND MODELING

- 2F4-01 A MODIFIED ILDM-APPROACH - ASSYMPTOTIC ANALYSIS AND APPLICATION TO IGNITION PROCESSES
Bykov, V., Goldfarb, I., Gol'dshtein, V., Maas, U.
- 2F4-02 A LAMINAR FLAME MODEL WITH ELECTRIC FIELD EFFECTS
Huckaby, E.D., Chorpening, B.T., Lilly, J.
- 2F4-03 NUMERICAL SIMULATIONS OF TYPE IA SUPERNOVAE FLAMES
Zingale, M., Bell, J.B., Day, M.S., Rendleman, C.A., Woosley, S.E.
- 2F4-04 A PARALLEL ADAPTIVE MESH REFINEMENT ALGORITHM FOR LAMINAR REACTING FLOWS
Northrup, S.A., Groth, C.P.T.
- 2F4-05 THE RESPONSE OF MODEL AND ASTROPHYSICAL THERMONUCLEAR FLAMES TO CURVATURE AND STRETCH
Dursi, L.J., Zingale, M., Calder, A.C., Fryxell, B., Timmes, F.X., Vladimirova, N., Rosner, R., Caceres, A., Lamb, D.Q., Olson, K., Ricker, P.M., Riley, K., Siegel, A.
- 2F4-06 A THERMODYNAMIC THEORY OF AUTOWAVES OF LAMINAR COMBUSTION
Gerasev, A.P.
- 2F4-07 MAGNETIC FIELDS AND THE LANDAU-DARRIEUS INSTABILITY OF ASTROPHYSICAL FLAMES
Dursi, L.J.
- 2F4-08 A LEVELSET MODEL FOR NEAR-EQUIDIFFUSIONAL PREMIXED FLAMES AS GASDYNAMIC INTERFACES
Class, A.G., Bronner, Y.
- 2F4-09 MULTIDIMENSIONAL SIMULATION OF LAMINAR DIFFUSION FLAMES BY MEANS OF THE LAMINAR FLAMELET CONCEPT
Claramunt, K., Cònsul, R., Carbonell, D., Pérez-Segarra, C.D., Oliva, A.
- 2F4-10 ARTIFICIAL NEURAL NETWORKS MODELS OF COMBUSTION WAVE
Abrukov, V.S., Malinin, G.I., Golova, T.V.
- 2F4-11 SOLVING MARKSTEIN COMBUSTION EQUATION BY LEVEL SET-LIKE METHOD
Nikolova, I.P.

FORT DEARBORN ROOM: TURBULENT PREMIXED COMBUSTION MEASUREMENTS

- 2F5-01 EXPERIMENTAL CHARACTERIZATION OF STRAIN AND CURVATURE EFFECTS ON THE INSTANTANEOUS STRUCTURE OF LEAN PREMIXED TURBULENT METHANE AIR FLAMES
Pavé, D., Chauveau, C., Davidenko, D., Gökalp, I., Shepherd, I.G.
- 2F5-02 ELECTRIC FIELD CONTROL OF A PREMIXED TURBULENT FLAME
Sakhrieh, A., Lins, G., Dinkelacker, F., Hammer, T., Leipertz, A., Branston, D.W.
- 2F5-03 CURVATURE AND WRINKLING OF PREMIXED FLAME KERNELS—COMPARISON BETWEEN PLANAR LASER INDUCED FLUORESCENCE (PLIF) AND 3D DIRECT NUMERICAL SIMULATIONS (DNS)
Gashi, S., Hult, J., Jenkins, K.W., Cant, R.S., Kaminski, C.F.
- 2F5-04 COMBINED CROSSED-PLANE TOMOGRAPHY AND STEREO PARTICLE VELOCIMETRY-FLAMELET DISPLACEMENT SPEEDS
Sattler, S.S., Gouldin, F.C.
- 2F5-05 MODELING OF TURBULENT BURNING VELOCITY OF HYDROGEN MIXTURES BASED ON THE LOCAL BURNING VELOCITY
Kido, H., Nakahara, M., Nakashima, K.
- 2F5-06 CLASSIFICATION OF LIFTED SWIRLING NATURAL GAS COMBUSTION IN BORGHII'S DIAGRAM
Vanoverberghe, K., Van den Bulck, E.
- 2F5-07 MEASUREMENT OF TURBULENT BURNING VELOCITIES FOR PREMIXED METHANE/AIR FLAMES IN A CONICAL DIFFUSER
Savarianandam, V.R., Lawn, C.J.

- 2F5-08 EFFECTS OF GAS VELOCITY, PRESSURE RISE, AND RADIATIVE HEAT LOSS ON TURBULENT BURNING VELOCITIES OF PREMIXED CH₄/AIR FLAMES IN INTENSE ISOTROPIC TURBULENCE
Shy, S.S., Yang, S.I., Lin, W.J., Su, R.C.
- 2F5-09 EXPERIMENTAL AND NUMERICAL ANALYSIS OF VORTEX-FLAME INTERACTION IN A PLANE PREMIXED SHEAR FLOW
Ishino, Y., Ohlwa, N.
- 2F5-10 TURBULENT SCALAR FLUX MEASUREMENTS IN A LOW-SWIRL BURNER
Zimmer, L., Tachibana, S., Suzuki, K.
- 2F5-11 LASER IGNITION OF METHANE-AIR: INFLUENCE OF INLET TEMPERATURE
Zimmer, L., Tachibana, S., Suzuki, K.
- 2F5-12 CHARACTERISTICS OF TURBULENT, HIGH-PRESSURE, LEAN PREMIXED METHANE/AIR FLAMES
Stewart, P., Griebel, P., Schären, R., Bombach, R., Inauen, A., Schenker, S.
- 2F5-13 EXPERIMENT AND NUMERICAL ANALYSIS ON FLAME STRUCTURE IN TURBULENT PREMIXED FLAME
Hayashi, N., Katoh, T., Nakamura, Y., Yamashita, H.
- 2F5-14 VORTEX-HEAT RELEASE INTERACTION IN A DUMP COMBUSTOR
Ahn, K., Stamp, G., Yu, K.H.

ILLINOIS ROOM: FIRE RESEARCH

- 216-01 EFFECTS OF HEAT FLUX, OXYGEN CONCENTRATION AND GLASS FIBER VOLUME FRACTION ON PYROLYSATE MASS FLUX FROM COMPOSITE SOLIDS
Rich, D.B., Lautenberger, C.W., Yuan, Z., Fernandez-Pello, A.C.
- 216-02 INSTABILITIES OF BUOYANCY-DRIVEN UPWARD FLAMES OVER THERMALLY THICK FUEL BEDS
Zouein, G., Ronney, P.D.
- 216-03 HEAT TRANSFER MECHANISM AND FLOW STRUCTURE ON FLAME SPREAD OVER MAGNESIUM POWDER LAYER
Kudo, Y., Kikuchi, H., Ito, A.
- 216-04 FORCED-FLOW BOUNDARY LAYER COMBUSTION OF PMMA PLATE –THE EFFECTS OF WATER MIST INJECTION INTO THE FLOW
Ndubizu, C.C., Ananth, R., Williams, F.W.
- 216-05 NUMERICAL ANALYSIS ON EFFECTS OF BUOYANCY ON FLAME SPREAD OVER SOLID FUEL
Kushida, G., Watanabe, T., Sassa, A.
- 216-06 THE ELECTRICAL ARC DIRECTION PATTERNS BY SHORT-CIRCUIT ANGLE
Shong, K.M., Kim, D.O., Kim, D.W., Kim, Y.S., Choi, C.S.
- 216-07 NUMERICAL SIMULATION OF THE BEHAVIOR OF A MINERAL MATERIAL UNDER DIRECT IMPACT OF A FLAME REPRESENTATIVE OF A FIRE
Song, S., Wang, H.Y., Most, J.M.
- 216-08 NUMERICAL SIMULATION OF SODIUM POOL FIRE, AEROSOL DYNAMICS AND BUOYANCY-DRIVEN NATURAL CONVECTION
Yamaguchi, A., Tajima, Y.
- 216-09 POOL FIRES IN WIND WITH A LARGE DOWNWIND OBJECT
Lam, C.S., Randsalu, E.J., Weckman, E.J., Brown, A.L., Gill, W.
- 216-10 LASER EXTINGUISHMENTS OF COUNTERFLOW DIFFUSION FLAMES
Torikai, H., Kitajima, A., Takeuchi, M.
- 216-11 JOINT TIME-FREQUENCY PHENOMENON IN POOL FIRE SUPPRESSED BY FINE WATER MIST: ASSESSMENT OF THE PROCEDURE
Xu, Q., Jin, C.
- 216-12 A STUDY ON THE DIELECTRIC BREAKDOWN PROCESS OF INSULATION COVER FOR INSTRUMENT TRANSFORMER BY SALT WATER
Choi, C., Kim, H.K., Gil, H.J., Han, W.K.
- 216-13 DETERMINATION OF MATERIAL FIRE PROPERTIES FOR SIMPLE PYROLYSIS MODELS FROM INERT PYROLYSIS EXPERIMENTS
Theuns, E., Merci, B., Vierendeels, J., Vandeveld, P.
- 216-14 EXPLOSIONS AND FIRES OF A RDF-5 SILO
Tsuruda, T., Suzuki, T., Ogawa Y., Liao, C.
- 216-15 THE FIRE DISPERSIVE PATTERNS OF POWER CORD SETS OCCURRED IN THE WALL-MODEL
Choi, C.S., Shong, K.M., Kim, D.O., Kim, D.W., Kim, Y.S.
- 216-16 A COMPUTER MODEL TO PREDICT FIRE RESISTANCE OF STEEL-STUD OR WOOD-STUD WALL ASSEMBLIES
Takeda, H.

- 216-17 CARBON MONOXIDE YIELDS FROM METHANE AND METHANOL FLAMES UNDER OXYGEN - REDUCED CONDITIONS
Saso, Y., Gotoda, H., Ogawa, Y.
- 216-18 MODELING THE EVAPORATION AND IGNITION OF LEAKED FUEL ON A HOT PLATE
Li, Y.L., Lu, S.X.
- 216-19 UNIVERSITY OF WATERLOO LIVE FIRE RESEARCH FACILITY
Weisinger, J., Lam, C.S., Klinck, A.J., Weckman, E. J., Strong, A.B., Johnson, D.A.
- 216-20 ASSESSMENT METHODS FOR FIRE SAFETY
Williamson, R.B., Quarles, S.L., Beall, F.C.
- 216-21 STEADY FLAME SPREAD RATE OF MATERIALS BY THE QUASI-STATIONARY FLAME FRONT TECHNIQUE
Bhatnagar, S.K.
- 216-22 ROLE OF GAS EXPANSION UNDER PHOTOIGNITION OF $\text{CCl}_2\text{H}_2 + \text{Cl}_2$ MIXTURES
Belikov, A.K., Komrakov, P.V., Begishev, I.R.

ILLINOIS ROOM: SENSORS AND IMAGING SYSTEMS

- 217-01 DEVELOPMENT OF AN ION MOBILITY SPECTROMETER IN LOW TEMPERATURE CO-FIRED CERAMIC TAPE
Plumlee, D.G., Steciak, J., Moll, A.J.
- 217-02 ELECTRIC CURRENT CONDUCTION IN A SYNGAS FLAME
Hill, C., Chorpening, B.T.
- 217-03 FLAME ION BEHAVIOR IN A TURBULENT PREMIXED COMBUSTOR
Chorpening, B.T., Thornton, J.D., Huckaby, E.D., Robey, E.H., Richar, G.A.
- 217-04 GSI OUT OF FOCUS TECHNIQUE FOR DROPLET SIZING IN BURNING SPRAYS
Calabria, R., Massoli, P.
- 217-05 ABSOLUTE SOOT VOLUME FRACTION MEASUREMENTS IN AN ETHYLENE DIFFUSION FLAME BY TWO-COLOR LII TECHNIQUE AT CONTROLLED FLUENCE
Cignoli, F., De Iuliis, S., Zizak, G.
- 217-06 OBSERVATION OF INNER STRUCTURE CHANGE OF BURNING SOLID MATERIALS
Suzuki, T., Tsuruda, T.
- 217-07 IONIZATION PROBE MEASUREMENTS OF QUENCHING DISTANCE
Sotton, J., Labuda, S.A., Ruttun, B., Bellenoue, M.
- 217-08 DETERMINATION OF THE MORPHOLOGY OF SOOT USING THE RELATIVE OPTICAL DENSITY (ROD) METHOD FOR ANALYZING TEM IMAGES
Tian, K., Thomson, A., Liu, F., Snelling, D.R., Smallwood, G.J., Wang, D.
- 217-09 PHOTOMETRIC PROCESSING FOR COMBUSTION LASER DIAGNOSTICS
Kalt, P.A.M., Long, M.B.
- 217-10 MEASUREMENT OF FLUCTUATING FLAME TEMPERATURES USING THERMOCOUPLE COMPENSATION TECHNIQUES
Kar, K., Roberts, S., Stone, R., Oldfield, M., French, B.

THURSDAY: 29 JULY 2004

FORT DEARBORN ROOM: ENGINE COMBUSTION

- 4F1-01 IN-CYLINDER-FLOW TURBULENCE MEASUREMENTS OF LENGTH SCALES RESOLVED TO 300 μm IN A MOTORED DI GASOLINE ENGINE
Funk, C., Fajardo, C., Sick, V., Reuss, D.
- 4F1-02 CYCLE-RESOLVED CHARGE EVOLUTION MEASUREMENTS IN A DIRECT INJECTION ENGINE USING DOUBLE-PULSE PLIF
Smith, J.D., Sick, V.
- 4F1-03 FUEL SPRAY-SPARK PLUG INTERACTIONS IN A FIRING SPRAY-GUIDED DIRECT-INJECTION ENGINE: HIGH-SPEED, HIGH-RESOLUTION IMAGING
Düwel, I., Drake, M.C., Fansler, T.D.
- 4F1-04 FLAMELET-BASED LEVEL SET APPROACH FOR MODELING COMBUSTION PROCESSES AND POLLUTANT FORMULATION IN SPARK IGNITION ENGINE
Kim, H., Kang, S., Kim, Y., Kim, Lee, J.-H., Park, N.
- 4F1-05 DEVELOPMENT OF AN IN CYLINDER MODEL FOR THE PREDICTION OF NO_x EMISSIONS FOR LEAN BURN CNG/H_2 TRANSIT BUS ENGINES
Dwyer, H.A., McCaffrey, Z., Miller, M.

- 4F1-06 THE OXIDATION AND INTERACTION OF A GASOLINE SURROGATE AND ITS COMPONENTS IN THE LOW AND INTERMEDIATE TEMPERATURE REGIME
Lenhert, D.B., Cernansky, N.P., Miller, D.L., Owens, K.G.
- 4F1-07 TIME RESOLVED DETECTION OF SOOT PARTICLE PROPERTIES IN THE COMBUSTION CHAMBER AND THE EXHAUST GAS PIPE OF A COMMON-RAIL DIESEL ENGINE
Jungfleisch, B., Stumpf, M., Kubach, H., Velji, A., Spicher, U., Sultz, R., Bockhorn, H.
- 4F1-08 EXHAUST EMISSIONS AND PERFORMANCE OF DIESEL ENGINE OPERATING ON ANIMAL FAT / SOYBEAN OIL / POLYSTYRENE PYROLYSIS OIL BLENDED FUELS
Morino, T., Morimune, T.
- 4F1-09 ATTENUATION EFFECTS ON LASER-BASED NITRIC OXIDE DIAGNOSTICS IN A HEAVY-DUTY DIESEL ENGINE
Verbiezen, K., Klein-Douwel, R.J.H., Donkerbroek, A.J., van Vliet, A.P., Meerts, W. L., Dam, N.J., ter Meulen, J.J.
- 4F1-10 INVESTIGATION OF INJECTION SPRAY, MIXTURE FORMATION, COMBUSTION AND EMISSION GENERATION PROCESSES INSIDE THE CYLINDERS OF LARGE MARINE DIESEL ENGINES
Buchholz, B., Hassel, E., Hopp, M., Niendorf, M., Pittermann, R., Schlemmer-Kelling, U., Thiele, I.
- 4F1-11 THE INFLUENCE OF OPERATING CONDITIONS ON SOOT FORMATION, OXIDATION AND MORPHOLOGY IN HIGH-PRESSURE SPRAY COMBUSTION
Crookes, R.J., Demosthenous, A.
- 4F1-12 CFD MODELING OF HIGH- AND MEDIUM-SPEED INTERNAL COMBUSTION ENGINES
Kilpinen, P., Kaario, O., Tiainen, J., Larmi, M.
- 4F1-13 AUTO-IGNITION PROCESSES OF TRANSIENT OPEN JETS
Fast, G., Kuhn, D., Class, A., Haessler, H., Bockhorn, H.
- 4F1-14 AN EXPERIMENTAL INVESTIGATION OF RAW AND ESTERIFIED JATROPHA OILS AS FUEL SUBSTITUTES IN A DIESEL ENGINE
Kumar, S.S., Balasubramanian, K.
- 4F1-15 LOW TEMPERATURE, OVEREXPANDED, TWO-STROKE CIDI ENGINE
Pien, P.
- 4F1-16 EXPERIMENTAL STUDY OF THE IMPACT OF TRACE NO ON THE OXIDATION OF VARIOUS FUELS IN A JET STIRRED REACTOR AT 10 ATM
Moreac, G., Dagaut, P., Roesler, J.F., Cathonnet, M.
- 4F1-17 A RAPID COMPRESSION MACHINE FOR CHEMICAL KINETICS STUDIES AT ELEVATED TEMPERATURE AND PRESSURE
Mittal, G., Sung, C.J.
- 4F1-18 A GLOBAL REACTION MODEL FOR THE HCCI COMBUSTION PROCESS
Zheng, J., Miller, D.L., Cernansky, N.P.
- 4F1-19 AUTOMATIC OPTIMIZATION, OVER REDUCTION AND REOPTIMIZATION OF A NATURAL GAS KINETIC MODEL FOR HCCI-ENGINE SIMULATIONS
Bellanca, R., Mauss, F., Wang, H.
- 4F1-20 INVESTIGATING THE BOUNDARIES OF A STABLE HCCI ENGINE OPERATION USING A PDF-BASED ENGINE CYCLE SIMULATOR
Bhave, A.N., Kraft, M., Zhao, H., Mauss, F.
- 4F1-21 INVESTIGATING THE SIGNIFICANCE OF OCTANE NUMBER IN CONTROLLING HCCI ENGINES
Bhave, A.N., Kraft, M., Montorsi, L., Ahmed, S.S., Mauss, F.
- 4F1-22 CHEMILUMINESCENCE SPECTRAL ANALYSIS AND PHOTOGRAPHIC OBSERVATION OF HCCI COMBUSTION
Murase, E., Hanada, K., Miyaura, T., Ikeda, J.
- 4F1-23 AUTO-IGNITION OF TOLUENE BLENDS BELOW 1000 K
Vanhove, G., Roubaud, A., Minetti, R.
- 4F1-24 EXPERIMENTS ON MIXTURE HOMOGENEITY IN HCCI ENGINES
Reuss, D.L., Sick, V.

FORT DEARBORN ROOM: TURBINES AND STATIONARY POWER SYSTEMS

- 4F2-01 STUDY OF SUPERCRITICAL HYDROCARBON FUELS INJECTED INTO A SUBSONIC CROSS-FLOW WITH COMBUSTION
Jensen, G.E., Woodward, R.D., Pal, S., Santoro, R.J.
- 4F2-02 COMBUSTION CHARACTERIZATION OF FUEL BLENDS FOR POWER GENERATION GAS TURBINES
Petersen, E., Xu, F., Ryder, R., Brankovic, A., Crofton, M.
- 4F2-03 EXPERIMENTAL STUDY OF A STAGED BURNER FOR GAS TURBINES
Dioc, N., Ducruix, S., Lacas, F., Veynante, D.
- 4F2-04 OPERATION OF A PRESSURIZED COMBUSTOR FOR LOW-NO_x COMBUSTOR DEVELOPMENT AND SIMULATION
Sidwell, T., Straub, D., Casleton, K.H., Beer, S., Maloney, D., Richards, G.A., Keller, J., Schefer, R.W., Oefelein, J.

- 4F2-05 CONTROL OF COMBUSTION OSCILLATION BY SECONDARY FUEL INJECTIONS FROM THE CENTERBODY OF SWIRLER
Tachibana, S., Zimmer, L., Kurosawa, Y., Suzuki, K.
- 4F2-06 STATISTICAL RANKING OF OPERATING PARAMETER EFFECTS ON TURBINE COMBUSTOR EMISSIONS
Casleton, K.H., Ontko, J.S., Hackett, G.A., Richards, G.A.
- 4F2-07 EMISSIONS IN LEAN-LEAN PREMIXED TWO-STAGE TUBULAR FLAMES COMBUSTION
Yamada, H., Takagi, H., Hayashi, S., Kawakami, T.
- 4F2-08 SECONDARY FUEL INJECTION CONTROL OF COMBUSTION INSTABILITIES IN A LEAN PREMIXED GAS TURBINE COMBUSTOR
Shinjo, J., Mizobuchi, Y., Ogawa, S.
OSCILLATING FLAMES IN A GAS TURBINE BURNER OBSERVED BY PHASE-LOCKED OH LASER-INDUCED FLUORESCENCE AND CHEMILUMINESCENCE
Hubschmid, W., Bombach, R., Inauen, A., Kreutner, W., Schenker, S., Tylli, N.
- 4F2-10 THE DRAG FORCE ON A POROUS CYLINDER WITH FLUID EVOLUTION UNDER CONDITIONS RELEVANT TO PULVERISED-FUEL COMBUSTION
Supramono, D., Nathan, G.J., Ashman P.J., Mullinger, P.J.
- 4F2-11 THE COMBUSTION OF ROMANIAN LIGNITE
Bosoaga, A., Mihaescu, L., Backreedy, R., Ma, L., Pourkashanian, M., Williams, A.
- 4F2-12 INFLUENCE OF HCl ON CO, C_xH_y, AND NO EMISSIONS IN AN INTERNALLY CIRCULATING FLUIDIZED BED
Wei, X., Sheng, H., Liu, D., Schnell, U.
- 4F2-13 CHARACTERISTICS OF IGNITION ON THE SAND LAYER COMBUSTION
Yokomori, T., Kim, S.G., Kim, N.L., Kataoka, T., Maruyama, S., Maruta, K.
- 4F2-14 REMOVAL OF NO_x FROM FLUE GAS BY RADICAL INJECTION
Lin, H., Gao, X., Luo, Z., Cen, K.F., Huang, Z.
- 4F2-15 THE DESIGN OF LOW NO_x BURNERS FOR METAL FURNACES
Lee, H.S., Atreya, A.

FORT DEARBORN ROOM: LASER INDUCED FLOURESCENCE MEASUREMENTS

- 4F3-01 DEVELOPMENT OF HIGH TEMPORALLY AND SPATIALLY RESOLVED FORMALDEHYDE MEASUREMENTS IN COMBUSTION ENVIRONMENTS
Olofsson, J., Richter, M., Augé, M., Aldén, M.
- 4F3-02 HIGH-REPETITION RATE LIF/MIE DROPSIZING WITH A NEW ALL SOLID-STATE Nd:YA1O₃ LASER SYSTEM
Düwel, I., Schulz, C., Wolfrum, J., Peuser, P., Zeller, P.
- 4F3-03 LASER-INDUCED FLUORESCENCE MEASUREMENTS USING A TUNABLE Nd:YAG LASER
Wermuth, N., Sick, V.
- 4F3-04 IMPACT OF FLUORESCENCE TRACERS ON COMBUSTION PERFORMANCE IN OPTICAL ENGINE EXPERIMENTS
Zhang, R., Wermuth, N., Sick, V.
- 4F3-05 VISUALIZATION OF THE FUEL DISTRIBUTION IN A SPRAY USING LASER INDUCED EXCIPLEX FLUORESCENCE, COMPARISON TO MIE SCATTERING AND LASER INDUCED FLUORESCENCE
Persson, F., Hemdal, S., Andersson, M., Rosén, A.
- 4F3-06 DEVELOPMENT AND APPLICATION OF OPTICAL MEASUREMENT TECHNIQUES FOR CHARACTERIZATION OF A FULL-SIZE FIGHTER-JET AFTERBURNER
Seyfried, H., Omrane, A., Särner, G., Richter, M., Schmidt, H., Aldén, M.
- 4F3-07 BLUE DIODE LASER TLAF THERMOMETRY – RECENT DEVELOPMENTS
Burns, I.S., Hult, J., Kaminski, C.F.
- 4F3-08 QUANTITATIVE ANALYSIS OF OH LASER INDUCED FLUORESCENCE INTENSITY IN DETONATIONS
Pintgen, F., Shepherd, J.E.
- 4F3-09 LIFSIM: A VERSATILE TOOL FOR NO AND O₂ LIF SPECTRA SIMULATION
Bessler, W.G., Schulz, C., Sick, V., Daily, J.W.
- 4F3-10 STRATEGIES FOR FORMALDEHYDE DETECTION IN FLAMES AND ENGINES USING A SINGLE-MODE Nd:YAG/OPO LASER SYSTEM
Brackmann, C., Li, Z., Rupinski, M., Docquier, N., Pengloan, G., Aldén, M.
- 4F3-11 ON NON-INTRUSIVE MEASUREMENT OF NO IN PREMIXED FLAMES
Ciucci, F., Kang, D.M., Ratner, A., Culick, F.E.C.
- 4F3-12 2D INSTANTANEOUS MIXTURE FRACTION MEASUREMENTS BASED ON LIF AND CORRELATION ANALYSIS
Sadanandan, R., Markus, D., Schiessl, R., Maas, U.
- 4F3-13 SIMULATION OF SPECTRA AFFECTED BY ENERGY TRANSFER AS PREREQUISITE FOR QUANTITATIVE LIF MEASUREMENTS
Brockhinke, A., Bültner, A., Kohse-Höinghaus, K., Lenhard, U., Letzgus, M.

- 4F3-14 LIF MEASUREMENTS AND CHEMICAL KINETIC ANALYSIS FOR NO AND CH FORMATION IN LAMINAR, COUNTER-FLOW CH₄-AIR PARTIALLY PREMIXED AND NON-PREMIXED FLAMES AT HIGH PRESSURE
Naik, S.V., Laurendeau, N.M.
- 4F3-15 NUMERICAL MODELLING OF CO₂ LIF IN HIGH-PRESSURE FLAMES
Eremin, A., Kazakova, S., Shumova, V., Koban, W., Schulz, C.
- 4F3-16 USING TOLUENE LIF TO MEASURE 2D-TEMPERATURE-FIELDS IN INHOMOGENEOUS FLOWS
Koban, W., Natarajan, V., Schulz, C.
- 4F3-17 MULTI-LINE NO-LIF GAS-TEMPERATURE IMAGING IN SPRAY SYSTEMS
Kronemayer, H.D., Bessler, W.G., Schulz, C.
- 4F3-18 FARLIF: MYTHS AND REALITY
Koban, W., Koch, J.D., Hanson, R.K., Schulz, C.

FORT DEARBORN ROOM: DIAGNOSTIC METHODS

- 4F4-01 DEVELOPMENT OF AN INJECTION-SEEDED, PULSED OPTICAL PARAMETRIC GENERATOR FOR HIGH-RESOLUTION COMBUSTION DIAGNOSTIC SPECTROSCOPY
Kulatilaka, W.D., Anderson, T.N., Bougher, T.L., Lucht, R.P.
- 4F4-02 *In SITU* COMBUSTION EXHAUST MEASUREMENTS OF NITRIC OXIDE AND CARBON MONOXIDE WITH TUNABLE DIODE-LASER ABSORPTION SENSORS
Anderson, T.N., Lucht, R.P., Barron-Jimenez, R.
- 4F4-03 DEVELOPMENTS IN THE TWO-COLOR, TWO-PHOTON, LASER-INDUCED POLARIZATION SPECTROSCOPY (LIPS) OF ATOMIC HYDROGEN
Kulatilaka, W.D., Anderson, T.N., Lucht, R.P.
- 4F4-04 MEASUREMENTS OF HYDROCARBONS USING LASER-INDUCED BREAKDOWN SPECTROSCOPY
Feroli, F., Buckley, S.G.
- 4F4-05 QUANTITATIVE MULTI-SCALAR RAMAN SCATTERING DIAGNOSTICS IN HIGH-PRESSURE FLAMES
Nguyen, Q.V., Kojima, J.
- 4F4-06 2-D TEMPERATURE IMAGING USING UV FILTERED RAYLEIGH SCATTERING
Zetterberg, J., Li, Z.S., Afzelius, M., Aldén, M.
- 4F4-07 INVESTIGATION OF OH GROUND-STATE POPULATION DYNAMICS USING PICOSECOND TWO-COLOR RESONANT FOUR-WAVE-MIXING SPECTROSCOPY
Chen, X., Patterson, B.D., Settersten, T.B.
- 4F4-08 NOVEL CONTROL CIRCUITRY FOR A COMPACT CAVITY RINGDOWN SPECTROMETER
McAndrew, B., Miller, J.H.
- 4F4-09 TEMPERATURE CALIBRATION OF LASER-BASED TECHNIQUES USING A NOVEL FLAT FLAME BURNER
Hartung, G., Burns, I.S., Hult, J., Kaminski, C.F.
- 4F4-10 REACTION INTERMEDIATES IN HIGH TEMPERATURE CATALYTIC WATER FORMATION STUDIED WITH CAVITY RINGDOWN SPECTROSCOPY
Hemdal, S., Johansson, Å., Försth, M., Andersson, M., Rosén, A.
- 4F4-11 BURNER PERFORMANCE MONITORING WITH FLAME SPECTROSCOPY
Parameswaran, T., Hughes, P.M.J.
- 4F4-12 DETERMINATION OF O₂, CO, H₂O CONCENTRATIONS AND GAS TEMPERATURE IN A COAL-FIRED UTILITY BOILER USING A WAVELENGTH-MULTIPLEXED TUNABLE DIODE LASER SENSOR
Sappey, A., Howell, J., Masterson, P., Hofvander, H., Jeffries, J., Zhou, X., Hanson, R.K.
- 4F4-13 TWO-DIMENSIONAL DISTRIBUTION OF NH₂ AND HNO IN LOW PRESSURE FLAT FLAME DOPED WITH AMMONIA
Rahinov, I., Goldman, A., Ditzian, N., Cheskis, S.
- 4F4-14 SYSTEMATIC STUDY OF FUEL-RICH PROPENE FLAMES BY CAVITY RING-DOWN SPECTROSCOPY
Schocker, A., Kohse-Höinghaus, K., Brockhinke, A.
- 4F4-15 HETERODYNE-DETECTED ELECTROSTRICTIVE LASER-INDUCED GRATINGS FOR FLOW VELOCITY AND TEMPERATURE MEASUREMENTS
Neracher, M., Hubschmid, W.
- 4F4-16 FLUORESCENCE SPECTROSCOPY OF KEROSENE VAPOUR: APPLICATION TO GAS TURBINES
Baranger, P., Orain, M., Grisch, F.
- 4F4-17 DETECTION OF UNBURNED METHANE IN A FLAME BY PHOTOTHERMAL DEFLECTION SPECTROSCOPY
Li Y., Gupta, R.

- 4F4-18 SIMULTANEOUS MEASUREMENT OF ABSOLUTE OH CONCENTRATION, TEMPERATURE, AND FLOW VELOCITY IN A FLAME BY PHOTOTHERMAL DEFLECTION SPECTROSCOPY
Li, Y., Gupta, R.
- 4F4-19 NEAR-IR DIODE LASER SENSOR FOR PRODUCTION IC ENGINES
Sonnenfroh, D.M., Mulhall, P.A., Allen, M.G., Matsuura, T., Usui, Y., Miyata, M.
- 4F4-20 INVESTIGATION OF ALCOHOL FLAMES BY MASS SPECTROMETRY
Kasper, T., Letzgas, M., Kohse-Höinghaus, K., Taatjes, C.A., McIlroy, A., Cool, T.A., Wang, J., Law, M.E., Morel, A., Westmoreland, P.R.
- 4F4-21 KINETICS OF OH CHEMILUMINESCENCE IN THE PRESENCE OF HYDROCARBONS
Hall, J. M., Petersen, E.L.
- 4F4-22 CHEMILUMINESCENCE RATE CONSTANTS FOR OH(A), CH(A) AND C₂(d) FROM LOW PRESSURE FLAMES
Smith, G.P., Park, C., Luque, J., Schneiderman, J.

FORT DEARBORN ROOM: FLAME ACOUSTICS AND INSTABILITIES

- 4F5-01 RESPONSE OF PREMIXED FLAMES TO HIGH FREQUENCY ACOUSTIC WAVES
Beauvais, F., Amon, A., Quinard, J., Searby, G.
- 4F5-02 FLAME-ACOUSTICS INTERACTIONS IN THE COUNTERFLOW FIELD: IMPORTANCE OF CHEMICAL KINETICS MODELS
Zambon, A.C., Chelliah, H.K.
- 4F5-03 METHANE-AIR MARKSTEIN NUMBERS FROM MEASUREMENTS OF THERMOACOUSTIC INSTABILITY
Aldredge, R.C.
- 4F5-04 DYNAMIC WEAKENING OF CH₄-AIR AND C₂H₄-AIR COUNTERFLOW DIFFUSION FLAMES USING ACOUSTICALLY PERTURBED INFLOWS
Pellett, G., Reid, B., McNamara, C., Johnson, R., Kabaria, A., Panigrahi, B., Wilson, L.
- 4F5-05 SELF-INDUCED NOISE RADIATED BY LAMINAR PREMIXED FLAMES ON A SLOT BURNER
Lee, W., Park, D.S.
- 4F5-06 RESEARCH OF MECHANISMS OF EXCITATION OF A SINGING FLAME AND INFLUENCE THEM OF VORTICAL STRUCTURES
Afanasyev, V.V., Ilyin, S.V., Kidin, N.I
- 4F5-07 VELOCITY FIELD MEASUREMENTS IN AN OSCILLATING BUNSEN FLAME
Ferguson, D.H., Lee, D.H., Lieuwen, T., Richards, G.A.
- 4F5-08 FLAME TRANSFER FUNCTION MEASUREMENTS IN BLUFF-BODY STABILISED TURBULENT PREMIXED FLAMES
Ayoola, B.O., Balachandran, R., Dowling, A.P., Frank, J.H., Kaminski, C.F., Mastorakos, E.
- 4F5-09 IMAGING OF FUEL MIXTURE FRACTION OSCILLATIONS IN AN ACOUSTICALLY DRIVEN SYSTEM USING ACETONE PLIF
Kang, D.M., Ciucci, F., Ratner, A., Culick, F.E.C.
- 4F5-10 INTERACTION OF A GAUSSIAN ACOUSTIC WAVE WITH A TURBULENT NON-PREMIXED FLAME
Laverdant, A., Thévenin, D.
- 4F5-11 EFFECTS OF TURBULENT FLAME DEVELOPMENT AND STRUCTURE ON DUCTED FLAME OSCILLATIONS
Sathiah, P., Lipatnikov, A.N., Chomiak, J.
- 4F5-12 LARGE EDDY SIMULATION OF SOUND RADIATION FROM A TURBULENT JET DIFFUSION FLAME
Zhang, C., Singh, K.K., Frankel, S.H., Gore, J.P., Mongeau, L.
- 4F5-13 INVESTIGATION OF INSTABILITIES AND STRUCTURE OF TURBULENT PREMIXED FLAME IN A LEAN STEPPED COMBUSTOR
Sabelnikov, V., Grisch, F.

ILLINOIS ROOM: LAMINAR PREMIXED FLAMES

- 4I6-01 CHEMICALLY-PASSIVE SUPPRESSION OF LAMINAR PREMIXED HYDROGEN/AIR FLAMES
Qiao, L., Kim C.H., Faeth, G.M.
- 4I6-02 OH* AND CH* CHEMILUMINESCENCE MODELING IN LAMINAR PREMIXED COUNTERFLOW METHANE-AIR FLAMES
Hardalupas, Y., Panoutsos, C.S., Taylor, A.M.K.P.
- 4I6-03 EXPERIMENTAL STUDY AND DETAILED MODELING OF PARA-XYLENE DEGRADATION IN A LOW PRESSURE STOICHIOMETRIC PREMIXED CH₄/O₂/N₂ FLAME
El Bakali, A., Lefort, B., Marschallek, K., Gasnot, L., Pauwels, J.F., Rida, A., Meunier, P.

- 416-04 THE ASYMMETRIC BEHAVIOR OF FLAME PROPAGATION INSIDE TUBES
Tsai, C.-H., Tai, C.-H
- 416-05 BURNING VELOCITIES AND A HIGH TEMPERATURE SKELETAL KINETIC MODEL FOR *n*-DECANE OXIDATION
Zhao, Z., Li, J., Kazakov, A., Zeppieri, S.P., Dryer, F.L.
- 416-06 HIGH PRESSURE AND DILUTION EFFECTS ON LAMINAR FLAME OF H₂-AIR MIXTURES
Lamoureux, N., Djebaili-Chaumeix, N., Malet, F., Paillard, C.E.
- 416-07 LAMINAR BURNING VELOCITY OF CH₄/AIR PREMIXED FLAME AT HIGH PRESSURE AND HIGH TEMPERATURE FOR VARIOUS EQUIVALENCE RATIOS
Ogami, Y., Kobayashi, H.
- 416-08 LAMINAR FLAME SPEEDS OF PREHEATED *iso*-OCTANE/AIR MIXTURES AND AT VARIOUS NITROGEN CONCENTRATIONS
Freeh, J.E., Huang, Y., Sung, C.J.
- 416-09 HYDRODYNAMIC PHENOMENA AND PECULIARITIES OF GASEOUS FLAMES PROPAGATION
Fedorov, A.V., Istratov, A.G., Kidin, N.I.
- 416-10 EFFECT OF INITIAL CONDITIONS ON FLAME-VORTEX INTERACTIONS
Womeldorf, C.A., Knio, O.M., Najm, H.N.
- 416-11 EFFECTS OF FLAME SPEED AND STRETCH IN FLAME KERNEL-VORTEX INTERACTIONS
Marley, S.K., Roberts, W.L., Drake, M.C., Fansler, T.D.
- 416-12 EXPERIMENTAL OBSERVATIONS OF LOCALIZED CELLULAR PATTERNS ON A POROUS PLUG BURNER AND COMPARISON TO A KURAMOTU-SIVASHINSKY-MODEL
Kuhn, D.B., Class, A.G.

ILLINOIS ROOM: LAMINAR NON-PREMIXED AND PARTIALLY PREMIXED COMBUSTION

- 417-01 DEVELOPMENT OF TUBULAR FLAME BURNERS
Ishizuka, S., Suzukawa, Y., Ishioka, M., Okada, K.
- 417-02 NUMERICAL SIMULATION OF EDGE-FLAMES STABILIZED IN COUNTERFLOW FIELD
Cho, S., Takita, K., Masuya, G.
- 417-03 STUDIES OF STRUCTURE AND STABILITY OF PLANAR DIFFUSION AND TOROIDAL EDGE FLAMES IN AN OPPOSED JET BURNER
Ciani, A., Kreutner, W., Hubschmid, W., Frouzakis, C.E., Boulouchos, K.
- 417-04 EXTINCTION OF TRIPLE FLAMES AT COUNTER-FLOW
Wada, T., Yokomori, T., Mizomoto, M.
- 417-05 OH LIF MEASUREMENT OF WALL-ATTACHED EDGE FLAME IN AXISYMMETRIC WALL JET
Torikai, H., Kitajima, A., Takeuchi, M.
- 417-06 EFFECTS ON COUNTERFLOW H₂-AIR PARTIALLY PREMIXED FLAMES
Briones, A.M., Puri, I.K., Aggarwal, S.K.
- 417-07 A NUMERICAL STUDY OF LAMINAR METHANE/AIR TRIPLE FLAMES IN TWO DIMENSIONAL MIXING LAYERS
Guo, H., Liu, F., Smallwood, G.J.
- 417-08 RECEDING EDGE FLAMES STABILIZED IN A COUNTERFLOW BURNER
Carnell, Jr., W.F., Kattamis, N.T., Renfro, M.W.
- 417-09 VELOCITY MEASUREMENTS IN NEIGHBORING LIFTED EDGE FLAMES
Wason, A., Carnell, Jr., W.F., Renfro, M. W.
- 417-10 ANALYSIS OF NONLINEAR OSCILLATIONS IN DIFFUSION FLAMES
Wang, H.Y., Bechtold, J., Law, C.K.
- 417-11 FLUID DYNAMICS OF FLICKERING LAMINAR DIFFUSION FLAMES
Williams, T.C., Shaddix, C.R., Schefer, R.W.
- 417-12 EFFECTS OF DILUTION GAS SPECIES ON EXTINCTION AND STRUCTURE OF CH₄-O₂ COUNTER-FLOWING DIFFUSION FLAME
Hamatsu, K., Takeuchi, M., Yahagi, Y.
- 417-13 EXPERIMENTAL STUDY OF A LAMINAR JET FLAME INTERACTING WITH A HORIZONTAL WALL
Chao, Y.-C., Li, Y.-H., Wu, C.-Y., Cheng, T.-S.
- 417-14 EFFECT OF VARIED AIR FLOW ON FLAME STRUCTURE OF LAMINAR INVERSE DIFFUSION FLAMES
Mikofski, M.A., Blevins, L.G., Williams, T.C., Shaddix, C.R.
- 417-15 NUMERICAL AND EXPERIMENTAL STUDY OF AN AXISYMMETRIC COFLOW LAMINAR METHANE-AIR DIFFUSION FLAME AT PRESSURES FROM 5 TO 40 ATMOSPHERES
Liu, F., Thomson, K.A., Guo, H., Smallwood, G.J.

- 417-16 LIFT-OFF AND BLOW-OFF OF A DIFFUSION FLAME BETWEEN PARALLEL STREAMS OF FUEL AND AIR EMERGING FROM POROUS WALLS
Fernandez-Tarrazo, E., Vera, M., Liñan, A.
- 417-17 LOW STRETCH DIFFUSION FLAME INSTABILITIES—A COMPUTATIONAL STUDY
Nanduri, J.R., Sung, C.J., T'ien, J.S.
- 417-18 LENGTH AND VOLUME IN LPG FLAME USING HIGH-TEMPERATURE AND LOW OXYGEN OXIDIZER
Yang, W.H., Blasiak, W.
- 417-19 PERTIAL PREMIXING COMBUSTION OF ETHANOL IN A POROUS ALUMINA AND IGNITION CONTROL WITH AN ULTRASONIC IRRADIATION
Fuse, T., Kobayashi, N., Hasatani, M.
- 417-20 EXTINCTION LIMIT OF COUNTERFLOW DIFFUSION FLAMES DILUTED BY H₂O AND CO₂
Hanai, H., Nioka, T.

FRIDAY: 30 JULY 2004

FORT DEARBORN ROOM: PROPELLANTS AND PROPULSION SYSTEMS

- 5F1-01 ELECTROLYTIC IGNITION OF HAN-BASED LIQUID PROPELLANTS
Risha, G.A., Yetter, R.A., Yang, V.
- 5F1-02 NANO METAL PARTICLE COMBUSTION FOR UNDERWATER PROPULSION
Risha, G.A., Huang, Y., Yetter, R.A., Yang, V.
- 5F1-03 LASER IGNITION OF LIQUID OXYGEN/ETHANOL PROPELLANTS UNDER SIMULATED SPACE CONDITIONS
Gajdeczko, B.F., Angioletti, M., Dryer, F.L.
- 5F1-04 DEVELOPMENT OF A MONOPROPELLANT MICRO-NOZZLE IN LOW TEMPERATURE CO-FIRED CERAMIC TAPE
Plumlee, D.G., Steciak, J., Moll, A.J.
- 5F1-05 EXPERIMENTAL AND MODELING INVESTIGATION OF THE THERMAL DECOMPOSITION OF *N*-DODECANE
Dahm, K.D., Virk, P.S., Bounaceur, R., Battin-Leclerc, F.P., Marquaire, M., Fournet, R., Daniau, E., Bouchez, M.
- 5F1-06 THERMAL IGNITION STUDY OF HAN BASED PROPELLANTS
Fontaine, J.H., Hurt, R.H.
- 5F1-07 COMPUTATIONAL STUDIES OF TURBULENT PREMIXED FLAME BASED DUMP COMBUSTOR
Mishra, D.P.
- 5F1-08 UNIFORM GAS MIXTURE IGNITION BY NANOSECOND DISCHARGE
Kukaev, E.N., Starikovskaia, S.M., Starikovskii, A.Yu.
- 5F1-09 COMBUSTION ASSISTED BY NANOSECOND BARRIER DISCHARGE
Mintousov, E.I., Pancheshnyi, S.V., Starikovskii, A.Yu.
- 5F1-10 A STUDY OF TURBULENT COMPRESSIBLE MIXING ENHANCEMENT USING RAYLEIGH-TAYLOR INSTABILITY
Ghosh, A., Stamp, G., Yu, K.H.
- 5F1-11 EXPERIMENTAL CHARACTERIZATION OF CAVITY-AUGMENTED SUPERSONIC MIXING AND COMBUSTION
Zang, A., Tempel, T., Buckley, S.G., Yu, K.H.
- 5F1-12 DEFLAGRATION-TO-DETONATION CONTROL BY NON-EQUILIBRIUM GAS DISCHARGES AND ITS APPLICATIONS FOR PULSED DETONATION ENGINE
Zhukov, V.P., Starikovskii, A.Yu.
- 5F1-13 DEFLAGRATION TO DETONATION TRANSITION IN A PDE UNDER CYCLIC OPERATION
Pinard, P.F., Tangirala, V.E., Dean, A.J.
- 5F1-14 A NOVEL IGNITION SYSTEM APPLIED FOR PULSE DETONATION ENGINE
Sato, H., Shimada, H., Hayashi, A.K.
- 5F1-15 SINGLE-CYCLE PERFORMANCE OF IDEALIZED LIQUID-FUELED PULSE DETONATION ENGINES
Cheatham, S., Kailasanath, K.
- 5F1-16 THE IMPACT OF HEAT TRANSFER ON PDE PERFORMANCE AND ITS ASSOCIATED FLOWFIELD
Barbour, E.A., Owens, Z.C., Morris, C.I., Hanson, R.K.
- 5F1-17 MODELING OF SINGLE- AND MULTIPLE-TUBE PULSE DETONATION ENGINE DYNAMICS
Ma, F., Choi, J.-Y., Yang, V.

FORT DEARBORN ROOM: *DETONATIONS AND EXPLOSIONS*

- 5F2-01 ON DETONABILITY AND FLAMMABILITY LIMITS IN PREMIXED GAS COMBUSTION
Bykov, V., Goldfarb, I., Gol'dshtein, V., Kagan, L., Sivashinsky, G.
- 5F2-02 THEORY OF DIRECT INITIATION OF DETONATION
Kasimov, A.R., Stewart, D.S.
- 5F2-03 COMPARISON OF THE MECHANISM OF DUST LIFTING UP FROM THE LAYER FOR DIFFERENT INITIAL CONDITIONS
Klemens, R., Litwin, D., Wolański, P., Zydak, P.
- 5F2-04 THE CORRELATION OF THE DDT RUN-UP DISTANCE TO THE AMPLIFICATION FACTOR IN PROPANE-OXYGEN MIXTURES
Li, J.M., Chung, K.M., Lai, W.H.
- 5F2-05 CALIBRATION OF A WIDE-RANGING EQUATION OF STATE AND REACTION RATE FOR PBX-9502
Wescott, B., Stewart, D.S., Davis, W.
- 5F2-06 DETONATION PROPAGATION IN A RECTANGULAR TUBE WITH STAGGERED AND SYMMETRY ARRAY OBSTACLES
Hayashi, A.K., Shiokawa, S., Eto, K., Sato, H., Tsuboi, N., Lee, J.H.S.
- 5F2-07 DDT IN HYDROGEN-AIR MIXTURE AT THE PRESENCE OF INERT PARTICLES
Khomik, S.V., Medvedev, S.P., Olivier, H., Polenov, A.N., Gelfand, B.E.
- 5F2-08 TRANSITION TO DETONATION IN METHANE/PROPANE-HYDROGEN-AIR MIXTURES
Medvedev, S.P., Khomik, S.V., Olivier, H., Polenov, A.N., Gelfand, B.E.
- 5F2-09 RESEARCHES OF INFLUENCE OF THE HIGH-FREQUENCY ELECTRICAL DISCHARGES ON DEFLAGRATION-TO-DETONATION TRANSITION
Afanasyev, V.V., Ilyin, S.V., Kidin, N.I.
- 5F2-10 EFFECT OF BOUNDARY LAYER ON FLAME ACCELERATION AND DDT IN HYDROGEN-OXYGEN MIXTURES
Kuznetsov, M.S., Matsukov, I.D., Alekseev, V.I., Breitung, W.
- 5F2-11 DUST LIFTING MODELING USING EULERIAN AND LAGRANGIAN APPROACHES
Kosinski, P., Klemens, R., Hoffmann, A.C.
- 5F2-12 DETAILED FEATURES OF ONE-DIMENSIONAL UNSTEADY H₂-AIR DETONATIONS
Daimon, Y., Matsuo, A.
- 5F2-13 AN EIGENVALUE-BASED ESTIMATE OF REACTION ZONE THICKNESSES IN GAS PHASE DETONATIONS
Powers, J.M., Paolucci, S.
- 5F2-14 EXPERIMENTAL STUDY OF IGNITION OF PROPANE-OXYGEN MIXTURE BY HOT INERT GAS JET
Elhsnawi, M., Teodorczyk, A.
- 5F2-15 NUMERICAL SIMULATION OF THE SHOCK DYNAMICS FOR CONDENSED EXPLOSIVE BY DETONATION SHOCK
Yoo, S., Stewart, D.S.
- 5F2-16 INVESTIGATION OF RICH EXPLOSION LIMIT FOR HEXANE DROPLETS-AIR MIXTURES IN A CONSTANT VOLUME CHAMBERS
Gieras, M., Kaluzny, M., Klemens, M., Kuhl, A., Oleszczak, P., Trzcinski, W., Wolański, P.
- 5F2-17 EVALUATION OF EXPLOSION LIMITS FOR HEXANE VAPOUR-AIR MIXTURES IN A CONSTANT VOLUME CHAMBERS
Gieras, M., Klemens, R., Kuhl, A., Wolanski, P.
- 5F2-18 NUMERICAL SIMULATION OF COAL DETONATION USING THE EULERIAN-LAGRANGIAN METHOD
Zhong, S., Teodorczyk, A., Deng, X.
- 5F2-19 THE INFLUENCE OF IONIZING RADIATION DOSE RATE ON THE IGNITION TEMPERATURE OF HYDROGEN-AIR GAS MIXTURE
Selezenev, A.A., Berezko, P.G., Proskudin, V.F., Yaroshenko, V.V., Potapin, V.I., Gladchenko, V.L., Gupta, A.K.
- 5F2-20 NUMERICAL SIMULATION OF DETONATION IN SUSPENDED ALUMINUM PARTICLE-AIR MIXTURES
Hong, T., Wnag, P., Qin, C.,
- 5F2-21 A STUDY OVERDRIVEN DETONATION WAVE DIFFRACTION IN A GRADUAL AREA EXPANSION FOR MULTI-CYCLE PDE APPLICATION
Conrad, C., Saretto, S.R., Lee, S.-Y., Santoro, R.J.
- 5F2-22 IGNITION AND FLAME PROPAGATION IN GASEOUS MIXTURES (CH₄ + Cl₂) UNDER CONTINUOUS LIGHT FLUX ACTION
Belikov, A.K., Feofanov, S.A., Begishev, I.R.

FORT DEARBORN ROOM: *DROPLET AND SPRAY COMBUSTION*

- 5F3-01 EFFECT OF FAR-FIELD RADIATION ON FREELY-FALLING DROPLET BURNING BEHAVIOR
Kroenlein, K.G., Dryer, F.L., Wang, D.H., Shaw, B.D.

- 5F3-02 A SIMULATION OF A FIBER SUPPORTED DROPLET
Dwyer, H.A., Sringeri, D., Shaw, B.
- 5F3-03 EFFECTS OF FUEL DROPLET ON FLAME PROPAGATION IN A LEAN PROPANE/AIR MIXTURE
Nunome, Y., Yoshinaga, K., Hanai, H., Kobayashi, H., Niioka, T.
- 5F3-04 A NUMERICAL INVESTIGATION OF THE EFFECTS OF TURBULENCE ON THE VAPORIZATION OF A FUEL DROPLET
Abou Al-Sood, M.M., Birouk, M.
- 5F3-05 INFLUENCE OF UNIFIED AND NON-UNIFIED ELECTRIC FIELD ON COMBUSTION OF LIQUID HYDROCARBON FUELS
Ilchenko, E.P., Shevchuk, V.G.
- 5F3-06 EXPERIMENTAL INVESTIGATION OF WASTE FUEL COMBUSTION IN HIGH TEMPERATURE AND LOW OXYGEN EXHAUST GAS
Okamhima, A., Ohno, T., Kawakami, T., Okajima, S.
- 5F3-07 COMBUSTION APPLICATIONS/EXTENSIONS OF NONEQUILIBRIUM CONTINUOUS MIXTURE THEORY
Arias-Zugasti, M., Rosner, D.E., La Mantia, B.
- 5F3-08 DYNAMICS OF A LASER-IGNITED PREMIXED BUBBLE IN A VISCOUS LIQUID
La Mantia, B., Rosner, D.E.
- 5F3-09 PROGRESS IN MINIATURE LIQUID FUEL FILM COMBUSTOR RESEARCH
Pham, T.K., Mehring, C., Dunn-Rankin, D., Sirignano, W.A.
- 5F3-10 EULERIAN MULTI-FLUID MODELING OF LAMINAR POLYDISPERSE SPRAY FLAMES
Laurent, F., Massot, M.
- 5F3-11 A NUMERICAL SIMULATION OF A METHANOL SPRAY FLAME
Widmann, J.F., Zhu, X.
- 5F3-12 NUMERICAL STUDY ON TURBULENT SPRAY FLAME BY USING LARGE-EDDY SIMULATION
Itoh, Y., Yamada, E., Taniguchi, N.
- 5F3-13 LIQUID JET ATOMIZATION IN A GAS TURBINE PREMIXING CHANNEL
Ragucci, R., Bellofiore, A., Cavaliere, A.

FORT DEARBORN ROOM: HETEROGENEOUS COMBUSTION

- 5F4-01 EFFECT OF POLYMORPHIC PHASE TRANSFORMATIONS IN Al_2O_3 FILM ON OXIDATION AND IGNITION KINETICS OF ALUMINUM POWDERS
Trunov, M.A., Schoenitz, M., Zhu, X., Dreizin, E.L.
- 5F4-02 MEASUREMENTS AND MODELING OF SOLID FUEL COMBUSTION IN FIXED BED REACTORS
Bleckwehl, S., Kolb, T., Schröder, E., Vortmann, C.
- 5F4-03 MODELING OF COAL COMBUSTION ACTIVATED BY PLASMA FLAME
Askarova, A.S., Karpenko, E.I., Messerle, V.E., Ustimenko, A.B.
- 5F4-04 EXPERIMENTAL STUDY OF COPPER CONCENTRATE FLAME PROPAGATION
González, O., Richards, J.F., Rivera, J.
- 5F4-05 BORON PARTICLE IGNITABILITY AND TRANSPORT INSTABILITY
Meinkoehn, D.
- 5F4-06 THE COMBUSTION TIME OF ALUMINUM PARTICLES IN H_2O , CO_2 , AND O_2 ATMOSPHERES
Bazyn, T., Eyer, R., Krier, H., Glumac, N.
- 5F4-07 HIGH-SPEED MICROSCOPIC OBSERVATIONS OF COMBUSTION PROCESSES OF A MICRO PLASTIC PARTICLE UNDER ABRUPT HEATING
Yamakita, R., Ishino, Y., Ohiwa, N.
- 5F4-08 THERMAL EXPANSION AND FRONT CURVATURE EFFECTS IN ENERGETIC MATERIALS DEFLAGRATION
Kuznetsov, I.R., Stewart, D.S.
- 5F4-09 COMBUSTION BEHAVIOR OF SOLID WASTE FUELS CONTAINING MOISTURE IN VERY HIGH TEMPERATURE ENVIRONMENTS
Hayashi, H., Okajima, A., Okajima, S.
- 5F4-10 COMBUSTION CHARACTERISTICS ON SOLID WASTE FUELS BURNING IN HIGH TEMPERATURE AND LOW OXYGEN ATMOSPHERE
Tanami, Y., Okajima, A., Okajima, S.
- 5F4-11 EXPERIMENTAL STUDY OF THE COMBUSTION OF BIOMASS PYROLYSIS OIL IN HIGH TEMPERATURE HIGH PRESSURE ENVIRONMENT
Calabria, R., Massoli, P.
- 5F4-12 THERMO-CHEMICAL CONVERSION OF CATECHOLS AND HYDROQUINONES IN THE PRESENCE OF NANO-PARTICLE IRON OXIDE
Shin, E.J., Miaser, D.E., Chan, W.G., Hajaligo, M.R.

- 5F4-13 GASIFICATION OF SINGLE WOOD PARTICLES
Wilmes, B., Behrendt, F.
- 5F4-14 DIMENSIONLESS EQUATION FOR THE FIXED BED COMBUSTION OF SOLID FUELS
Szlek, A., Wilk, R.K.
- 5F4-15 COMBUSTION OF SEWAGE SLUDGE AND WASTE MATERIALS IN A SLUGGING GAS-FLUIDISED BED
Rees, A.C., Dennis, J.S., Hayhurst, A.N., Davidson, J.F.
- 5F4-16 SURFACE OXIDES ON YOUNG CHARs IN FLAME
Chen, W.-Y., Taylor, T.W., Wan, S.
- 5F4-17 A MODE OF BURNING MODEL DURING OXIDATION OF THE CHARs OF PULVERIZED FUELS
Ma, L., Campbell, P.A., Mitchell, R.E.
- 5F4-18 ZONE I OXIDATION OF A LIGNITE CHAR - AN INVESTIGATION OF RATE, CO/CO₂ RATIO AND STABLE SURFACE OXIDES
Battye, D.L., Ashman, P.J.
- 5F4-19 REACTIVITY AND STRUCTURE OF CHARs FROM DEWATERED LIGNITE
Ballantyne, T.R.H., Mullinger, P.J., Ashman, P.J.
- 5F4-20 DIRECT NUMERICAL SIMULATION OF COAL PARTICLE-LADEN TURBULENT JETS
Luo, K., Fan, J.R., Wu, J.K., Cen, K.F.
- 5F4-21 EXPERIMENTAL STUDY ON GASIFICATION OF COAL AND CHAR PARTICLES
Chen, W.H.
- 5F4-22 AN EXPERIMENTAL STUDY ON COMBUSTION MECHANISMS IN A TURBULENT PULVERIZED COAL FLAME
Akamatsu, F., Kurose, R., Hwang, S.M., Tsuji, H., Makino, H., Katsuki, M.
- 5F4-23 COMBUSTION MODELING OF SOLID BEDS—A UNIFIED APPROACH
Yang, W., Ryu, C., Yang, K., Choi, S.

FORT DEARBORN ROOM: TURBULENT NON-PREMIXED AND PARTIALLY-PREMIXED COMBUSTION

- 5F5-01 SIMULTANEOUS MEASUREMENTS OF MIXTURE FRACTION, SCALAR DISSIPATION RATE AND FORMALDEHYDE IN A NON-PREMIXED TURBULENT COUNTERFLOW PRIOR TO AUTO-IGNITION
Honnet, S., Peters, N.
- 5F5-02 SCALAR DISSIPATION RATE IMAGING USING PLANAR LASER-INDUCED FLUORESCENCE IN TURBULENT NON-PREMIXED FLAMES
Sutton, J.A., Driscoll, J.F.
- 5F5-03 AN ILDM-BASED ANALYSIS OF MULTISCALAR MEASUREMENT DATA IN TURBULENT NON-PREMIXED FLAMES
Schiessl, R., Maas, U., Long, M.B.
- 5F5-04 MODELING TURBULENT NON-PREMIXED JET FLAMES USING FLUENT'S PDF TRANSPORT MODEL: EFFECT OF MIXING MODEL ON FLAME EXTINCTION
Chandy, A.J., Goldin, G.M., Frankel, S.H.
- 5F5-05 HYDROXYL AND RAYLEIGH SCATTERING TIME-SERIES MEASUREMENTS IN TURBULENT NON-PREMIXED H₂/CH₄/N₂-AIR JET FLAMES
Raguraman, J., King, G.B., Laurendeau, N.M., Renfro, M.W.
- 5F5-06 HYDROXYL TIME-SCALE MEASUREMENTS IN TURBULENT COUNTER-FLOW FLAMES
Venkatesan, K., King, G.B., Laurendeau, N.M., Renfro, M.W., Omar, S.K., Ludwig, A., Geyer, D., Dreizler, A., Janicka, J.
- 5F5-07 EFFECT OF SECONDARY INJECTION ON PRESSURE FLUCTUATION AND NO_x PRODUCTION FOR OSCILLATORY COMBUSTION
Nagao, T., Sato, H., Hayashi, A.K., Ogawa, S.
- 5F5-08 THE BLOWOUT PROCESS OF TURBULENT DIFFUSION JET FLAMES
Chao, Y.-C., Wu, C.-Y., Li, Y.-H., Lee, K.-Y., Cheng, T.-S.
- 5F5-09 SPACE-TIME CORRELATION FUNCTION FOR THE PIXEL BRIGHTNESS FLUCTUATION OF A BUOYANCY DRIVEN DIFFUSION FLAME
Tsuruda, T.
- 5F5-10 DIFFUSION FLAMELET STATISTICS AT FLAME BASE OF LIFTED TURBULENT JET NON-PREMIXED FLAMES
Noda, S., Mori, H., Hong, Y.
- 5F5-11 CHARACTERIZATION OF A HYDROGEN/AIR SUBSONIC HIGH VELOCITY JET FLOW IN INERT AND REACTIVE CONDITIONS -- MIXING ENHANCEMENT BY STREAMWISE VORTICITY GENERATION
Theron, M., Brilleanou, M.
- 5F5-12 BLOWOUT VELOCITY ENHANCEMENT IN THE PARTIALLY PREMIXED INTERACTING JET FLAMES
Lee, B.-J., Kim, J.-H.

ILLINOIS ROOM: *COMBUSTION SYNTHESIS AND CATALYTIC COMBUSTION*

- 516-01 MODELING NANOPARTICLE DYNAMICS: COAGULATION, SINTERING, PARTICLE INCEPTION AND SURFACE GROWTH
Morgan, N.M., Wells, C.G., Kraft, M., Wagner, W.
- 516-02 FORMATION OF HYDROGEN-FREE CARBON NANOPARTICLES BY PULSE-PHOTOlySIS OF CARBON SUBOXIDE
Emelianov, A., Eremin, A., Gurentsov, E., Hofmann, M., Jander, H., Schulz, C., Wagner, H.Gg.
- 516-03 FLAME SYNTHESIS OF VALUABLE NANO-PARTICLES—PROGRESS/NEED IN THE AREAS OF RATE-LAWS, POPULATION DYNAMICS AND CHARACTERIZATION
Rosner, D.E.
- 516-04 MECHANISM / RATES OF THIN FILM FORMATION BY COMBUSTION-CVD
Rosner, D.E., Davis, M.J.
- 516-05 JOULE EFFECT OF AN EXTERNAL ELECTRIC FIELD ON HIGH-TEMPERATURE COMBUSTION SYNTHESIS
Filimonov, I.A., Kidin, N.I.
- 516-06 FORMATION OF NANOxIDES DURING METAL COMBUSTION AND THEIR UNFORESEEN PROPERTIES
Altman, I.S., Pikhitsa, P.V., Jang, Y.-H., Choi, M.
- 516-07 FLAME SYNTHESIS OF NON-AGGLOMERATED Al_2O_3 AND TiO_2 NANOPOWDERS IN UNIFORM ELECTRIC FIELDS
Zhao, H., Dewanaga, J., Rapaka, V., Liu, X., Tse, S.D.
- 516-08 COMPARISON OF A PREMIXED AND A MULTI-ELEMENT DIFFUSION BURNER APPLIED IN FLAME SYNTHESIS OF SILICA NANOPARTICLES
Geier, M., Parker, T.
- 516-09 COMBUSTION OF A BINARY HETEROGENEOUS SYSTEM: EFFECT OF MICRO-NONUNIFORMITY OF MIXING
Grinchuk, P.S., Rabinovich, O.S.
- 516-10 SOOT PARTICLE INTERACTION WITH UV LIGHT
Choi, J.H., Stipe, C.B., Sawyer, R.F., Koshland, C.P., Lucas, D.
- 516-11 OPTIMIZATION OF FLAME SYNTHESIS FOR CARBON NANOTUBES VIA SUPPORTED CATALYSTS
Vander Wal, R.L., Berger, G.M., Hall, L.J.
- 516-12 CATALYTIC FLAME SYNTHESIS OF CARBON NANOTUBES
Xu, F.S., Rapaka, V., Zhao, H., Tse, S.D.
- 516-13 FLAME SYNTHESIS OF CARBON NANOTUBES IN THE WALL STAGNATION FLOW
Yokomori, T., Nakazawa, S., Mizomoto, M.
- 516-14 ELECTRIC FIELD ASSISTED FLAME NANOTUBE SYNTHESIS: ALIGNMENT, STRUCTURE, AND GROWTH RATE EFFECTS
Merchan-Merchan, W., Saveliev, A.V., Kennedy, L.A.
- 516-15 SYNTHESIS OF MULTI-WALLED CARBON NANOTUBES ON A METAL SUBSTRATE USING AN ETHYLENE INVERSE DIFFUSION FLAME
Lee, G.W., Jurng, J., Bae, G.-N., Hwang, J.
- 516-16 CHEMICAL KINETICS CONSIDERATIONS FOR FLAME SYNTHESIS OF CARBON NANOTUBE IN A PREMIXED FLAME USING A SUPPORT CATALYST
Gopinath, P., Gore, J.
- 516-17 CARBON NANOTUBE FORMATION FROM METHANE DECOMPOSITION ONTO FERROCENE-GENERATED IRON
Wehrmeister, A., Axelbaum, R.L.
- 516-18 THE USE OF UNMIXED COMBUSTION TO SUPPLY HEAT FOR CATALYTIC CRACKING
Lyon, R.K., Benedict, L., Clark, W.
- 516-19 EVALUATION OF CATALYTIC COMBUSTION SURFACE CHEMISTRY WITH ILDM'S
Reihani, S.A., Jackson, G.S.
- 516-20 MOLECULAR DYNAMICS STUDY ON EFFECTS OF DYNAMIC BEHAVIOR OF SURFACE ADHERENT MOLECULES ON REACTION PROBABILITY AND ENERGY TRANSFER
Shibahara, M., Katsuki, M.
- 516-21 EXPERIMENTAL AND FEA STUDIES ON PLUG FLOW COMBUSTION OF PROPANE/AIR MIXTURES THROUGH CATALYTIC IGNITION
Patel, A., Williams, J., Oberding, J., Beyerlein, S., Steciak, J.
- 516-22 CATALYTIC COMBUSTION OF HYDROGEN IN THE EQUI-ADSORPTION REGIME
Treviño, C.

ILLINOIS ROOM: AUTO-IGNITION AND SHOCK TUBE EXPERIMENTS

- 517-01 HYDROCARBON-AIR MIXTURES IGNITION AT HIGH PRESSURES
Zhukov, V.P., Sechenov, V.A., Starikovski, A.Yu.
- 517-02 EXPERIMENTS AND MODELING OF THE AUTO-IGNITION OF 1-HEXENE/ISO-OCTANE MIXTURES BETWEEN 630 AND 1830 K
Touchard, S., Fournet, R., Glaude, P.A., Warth, V., Battin-Leclerc, F., Yahyaoui, M., Chaumeix, N.D., Paillard, C.E., Vanhove, G., Ribaucour, M., Minetti, R.
- 517-03 DEVELOPMENT OF A CHEMICAL KINETICS MECHANISM FOR C₂H_x IGNITION IN THE PRESENCE OF SILANE
Hall, J., deVries, J., Petersen, E.
- 517-04 VALIDATION OF REACTION MECHANISMS BY IGNITION DELAY TIME MEASUREMENTS: APPROACHING THE LOW TEMPERATURE REGIME IN SHOCK TUBES
Naumann, C., Braun-Unkhoff, M., Goos, E., Steil, U., Frank, P., Aigner, M.
- 517-05 SHOCK TUBE AND MODELING STUDY OF METHYLCYCLOHEXANE OXIDATION
Orme, J.P., Smith, J.M., Muldoon, T., Curran, H.J., Simmie, J.M.
- 517-06 SHOCK TUBE MEASUREMENTS OF IGNITION DELAY TIMES IN n-HEPTANE, GASOLINE AND SURROGATE FUEL MIXTURES
Gauthier, B.M., Davidson, D.F., Hanson, R.K.
- 517-07 DEVELOPMENT OF A FUNDAMENTAL HYDROCARBON COMBUSTION KINETIC DATABASE UTILIZING SHOCK TUBE MEASUREMENTS
Davidson, D.F., Hanson, R.K.