Chronological Index

- **B85-001 A One-Dimensional Model of a Carbon-Black Slurry-Fueled Combustor.** S. R. Turns and G. M. Faeth, *The Pennsylvania State University* (1, 1, p. 5) Article based on AIAA Paper 84-0126
- B85-002 Fuel Distributions from Pressure-Swirl Atomizers. J. Ortman and A. H. Lefebvre, *Purdue University* (1, 1, p. 11) Article
- B85-003 Drop-Size Distribution Characteristics of Spill-Return Atomizers. N. K. Rizk and A. H. Lefebvre, *Purdue University* (1, 1, p. 16) Article based on AIAA Paper 84-1321
- **B85-004** The Problem of Gradual Opening in Wave Rotor Passages. S. Eidelman, *Naval Postgraduate School* (1, 1, p. 23) Article
- B85-005 Three-Dimensional Unsteady Flow in an Axial Flow Turbine. O. P. Sharma and T. L. Butler, Pratt & Whitney-Engineering Division; H. D. Joslyn and R. P. Dring, United Technologies Research Center (1, 1, p. 29) Article based on AIAA Paper 83-1170
- **B85-006 Comparison of Design Techniques for Pumps with Skewed Blades.** A. L. Treaster and F. E. Smith, *Pennsylvania State University* (1, 1, p. 39) Article based on AIAA Paper 83-1282
- **B85-007 Probe-Shift Error in Remote Diagnostic of Volume Radiation Sources.** C. J. Cremers and P. S. Swaith, *University of Kentucky* (1, 1, p. 45) Article based on AIAA Paper 83-1541
- **B85-008** Improved Supersonic Performance for the F-16 Inlet Modified for the J79 Engine. Louis G. Hunter and J. A. Cawthon, General Dynamics Corporation (1, 1, p. 50) Article based on AIAA Paper 84-1272
- B85-009 Approximate Factorization for Three-Dimensional Transonic Nacelle/Inlet Flowfield Computations. Joseph Vadyak and Essam H. Atta, Lockheed-Georgia Company (1, 1, p. 58) Article based on AIAA Paper 83-1417
- B85-010 Integratable Propulsion Systems for the Space Station. S. D. Rosenberg and D. C. Judd, Aerojet TechSystems Company; and P. W. Garrison, Jet Propulsion Laboratory, California Institute of Technology (1, 1, p. 65) Article
- B85-011 Design of a Nuclear Electric Propulsion Orbital Transfer Vehicle. David Buden, Los Alamos National Laboratory; and Philip W. Garrison, Jet Propulsion Laboratory, California Institute of Technology (1, 1, p. 70) Article based on AIAA Paper 84-1447
- B85-012 Vertical Ascent from Earth to Geosynchronous Orbit. James A. Martin, NASA Langley Research Center (1, 1, p. 77) Article based on AIAA Paper 84-0509
- B85-013 Investigation of a Dual Inlet Side Dump Combustor Using Liquid Fuel Injection. F. D. Stull and R. R. Craig, Air Force Wright Aeronautical Laboratories; G. D. Streby, Universal Energy System; and S. P. Vanka, Argonne National Laboratories (1, 1, p. 83) Article based on AIAA Paper 83-0420
- B85-014 MHD Generator Performance Analyses for the Advanced Power Train Study. Carlson C. P. Pian and Finn A. Hals, Avco Everett Research Laboratory, Inc. (1, 1, p. 89) Article based on AIAA Paper 84-0154

- B85-015 Computational Design and Validation Tests of Advanced-Concept Subsonic Inlets. T. J. Barber, United Technologies Research Center; D. C. Ives, D. P. Nelson and R. Miller, Pratt & Whitney Aircraft Group (1, 2, p. 97) Article based on AIAA Paper 84-1329
- B85-016 Two-Dimensional Viscous Simulation of Inlet/Diffuser Flows with Terminal Shocks. Noel A. Talcott Jr. and Ajay Kumar, NASA Langley Research Center (1, 2, p. 103) Article based on AIAA Paper 84-1362
- **B85-017** Experimental Study of Flows in a Two-Dimensional Inlet Model. Miklos Sajben, Thomas J. Bogar and Joseph C. Kroutil, *McDonnell Douglas Corporation* (1, 2, p. 109) Article based on AIAA Paper 83-0176
- B85-018 Response of a Supersonic Inlet to Downstream Perturbations. T. J. Bogar, M. Sajben and J. C. Kroutil, McDonnell Douglas Corporation (1, 2, p. 118) Article
- B85-019 Powerplants for Long-Duration Unmanned Aircraft. J. E. Boretz, TRW Applied Technology Division (1, 2, p. 126) Article based on AIAA Paper 84-1431
- B85-020 Evaluation of Cumulative Damage Models for Fatigue Crack Growth in an Aircraft Engine Alloy. T. Nicholas, Air Force Wright Aeronautical Laboratories; G. K. Haritos, Air Force Institute of Technology; and J. R. Christoff, Air Force Armament Laboratory (1, 2, p. 131) Article
- B85-021 Aerodynamic Effect of Combustor Inlet Air Pressure on Fuel Jet Atomization. Robert D. Ingebo, NASA Lewis Research Center (1, 2, p. 137) Article based on AIAA Paper 84-1320
- **B85-022** Antimatter Propulsion for OTV Applications. Brice N. Cassenti, *United Technologies Research Center* (1, 2, p. 143) Article based on AIAA Paper 84-1485
- B85-023 Streamtube Expansion Effects on the Darrieus Wind Turbine. Ion Paraschivoiu, Ecole Polytechnique de Montreal (Canada); Philippe Fraunie and Claude Beguier, Institut de Mecanique Statistique de la Turbulence (France) (1, 2, p. 150) Article
- **B85-024 A Comparison of Scramjet Integral Analysis Techniques.** G. A. Sullins and P. J. Waltrup, *The John Hopkins University Applied Physics Laboratory* (1, 2, p. 156) Technical Note
- **B85-025 Heat Transfer in the Vicinity of a Large-Scale Obstruction in a Turbulent Boundary Layer.** M. F. Blair, *United Technologies Research Center* (1, 2, p. 158) Technical
 Note based on AIAA Paper 84-1723
- B85-026 Radiative Energy Loss and the Electrical Conductivity in Nonequilibrium MHD Generators. G. P. Gupta and V. K. Rohatgi, Bhabha Atomic Research Center (India); G. Paran Gowda and Mittal M. L., Indian Institute of Technology (India) (1, 3, p. 161) Synoptic
- B85-027 Power Supplies for Primary Electric Propulsion Missions. Ross M. Jones and John A. Scott-Monck, *Jet Propulsion Laboratory, California Institute of Technology* (1, 3, p. 163) Article
- **B85-028 Ion Extraction Capabilities of Two-Grid Accelerator Systems.** Dean C. Rovang and Paul J. Wilbur, *Colorado State University* (1, 3, p. 172) Article

- B85-029 High-Altitutde Simulation Tests of the LOX/LH₂ Engine LE-5. Koji Yanagawa, National Space Development Agency of Japan; Hiroshi Miyajima, National Aerospace Laboratory (Japan); Kenji Kishimoto, Mitsubishi Heavy Industries Ltd. (Japan); and Toshihiko Fujita, National Space Development Agency of Japan (1, 3, p. 180) Article
- **B85-030** Design and Performance Evaluation of a Two-Position Variable Geometry Turbofan Combustor. J. W. Sanborn, P. E. Scheihing, E. B. Coleman, K. P. Johnson and F. G. Davis, Garrett Turbine Engine Company (1, 3, p. 187) Article based on AIAA Paper 84-1171
- **B85-031** Internal Flow Characteristics of Simplex Swirl Atomizers. N. K. Rizk and A. H. Lefebvre, *Purdue University* (1, 3, p. 193) Article
- **B85-032 Spray Characteristics of Spill-Return Atomizers.** N. K. Rizk and A. H. Lefebvre, *Purdue University* (1, 3, p. 200) Article
- **B85-033 CARS** System for Turbulent Flame Measurements. Richard R. Antcliff, Systems Research Laboratories, Inc.; Olin Jarrett Jr. and R. Clayton Rogers, NASA Langley Research Center (1, 3, p. 205) Article based on AIAA Paper 84-1537
- **B85-034 Energy Balance Analysis of Nonlinear Combustion Instability.** G. A. Flandro, *University of Utah* (1, 3, p. 210) Article
- B85-035 Analysis of Unsteady Inviscid Diffuser Flow with a Shock Wave. V. Yang and F. E. C. Culick, California Institute of Technology (1, 3, p. 222) Article
- B85-036 Reynolds Number and Fan/Inlet Coupling Effects on Subsonic Transport Inlet Distortion. D. L. Motycka, *Pratt & Whitney Aircraft Group* (1, 3, p. 229) Article based on AIAA Paper 84-2487
- **B85-037** Simulation of Rotating Stall by the Vortex Method. Philippe, R. Spalart, *NASA Ames Research Center* (1, 3, p. 235) Article
- B85-038 Predicted Turbine Stage Performance Using Quasi-Three-Dimensional and Boundary-Layer Analyses. Robert J. Boyle, Jeffrey E. Haas and Theodore Katsanis, *NASA Lewis* Research Center (1, 3, p. 242) Article
- **B85-039** Performance Estimation for Turbofans with and without Mixers. Gordon C. Oates, *University of Washington* (1, 3, p. 252) Article
- **B85-040 Three-Dimensional Viscous Flow Analysis for Centrifugal Impellers.** C. M. Rhie, R. A. Delaney and T. F. McKain, *General Motors Corporation* (1, 4, p. 257) Synoptic based on AIAA Paper 84-1296
- B85-041 Advanced Single-Rotation Propfan Drive System. R. D. Anderson, R. E. Devlin, A. S. Novick and D. A. Wagner, Allison Gas Turbine Division, General Motors Corporation (1, 4, p. 259) Synoptic based on AIAA Paper 84-1194
- **B85-042** A Computational Study of the Unsteady Shock-Wave Structure in a Two-Dimensional Transonic Rotor. Panagiotis Demetriou Sparis, *Democritus University of Thrace (Greece)* (1, 4, p. 261) Synoptic
- B85-043 Experimental Investigation of Subsonic Combustion-Driven MHD Generator Performance. A. W. McClaine, D. W. Swallom and R. Kessler, Avco Everett Research Laboratory (1, 4, p. 263) Article based on AIAA Paper 84-0157

- B85-044 Flame Radiation and Liner Heat Transfer in a Tubular-Can Combustor. R. W. Claus, G. M. Neely and F. M. Humenik, NASA Lewis Research Center (1, 4, p. 270) Article based on AIAA Paper 84-0443
- B85-045 External Compression Supersonic Inlet Analysis Using a Finite Difference Two-Dimensional Navier-Stokes Code. A. F. Campbell, J. Syberg and C. K. Forester, *Boeing Military Airplane Company* (1, 4, p. 279) Article based on AIAA Paper 84-1275
- B85-046 Study of an Asymmetric Flap Nozzle as a Thrust-Vectoring Device. C. C. Wu, California State University, Los Angeles; and W. L. Chow, University of Illinois (1, 4, p. 286) Article based on AIAA Paper 84-1360
- **B85-047 Prediction of Broadband Noise from Horizontal Axis Wind Turbines.** Ferdinand W. Grosveld, *The Bionetics Corporation* (1, 4, p. 292) Article based on AIAA Paper 84-2357
- B85-048 A Limit to TDC Turbulence Intensity in Internal Combustion Engines. M. E. Hayder, A. K. Varma and F. V. Bracco, *Princeton University* (1, 4, p. 300) Article
- B85-049 Power Generation Tests of the Improved Shaped B-Field-Type MHD Generator. Naoyuki Kayukawa, *Hokkaido University (Japan)* (1, 4, p. 309) Technical Note
- B85-050 Invariant Kinetic Parameters of Polybutadiene Binders Thermal Decomposition. Anatolii I. Lesnikovich and Sergei V. Levchik, *Byelorussian State University (USSR)* (1, 4, p. 311) Technical Note
- **B85-051 Pulsed Plasma Thrusters for Orbit Transfer.** P. J. Turchi, R&D Associates, Washington Research Laboratory (1, 4, p. 313) Technical Note
- B85-052 Explosion Phenomenon from Contact of Hypergolic Liquids. Masafumi Tanaka, Wataru Daimon and Itsuro Kimura, University of Tokyo (1, 4, p. 314) Technical Note
- B85-053 Simulation of Wake Passing in a Stationary Turbine Rotor Cascade. D. J. Doorly and M. L. G. Oldfield, *University of Oxford (England)* (1, 4, p. 316) Technical Note
- B85-054 Relations Among Ballistic Properties of Solid Propellants. R. L. Glick, *Purdue University*; and W. T. Brooks, *Hercules, Inc.* (1, 4, p. 319) Technical Note
- B85-055 Computation of the Shuttle Solid Booster Nozzle Start-Up Transient Flow. Michael C. Cline, Los Alamos National Laboratory; and Richard G. Wilmoth, NASA Langley Research Center (1, 5, p. 321) Article based on AIAA Paper 84-0462
- **B85-056 A Simplified Hydrocarbon Reaction Mechanism for Combustion Applications.** Casimir J. Jachimowski, *NASA Langley Research Center* (1, 5, p. 329) Article
- B85-057 Vibration and Flutter of Mistuned Bladed-Disk Assemblies. Krishna Rao V. Kaza and Robert E. Kielb, NASA Lewis Research Center (1, 5, p. 336) Article based on AIAA Paper 84-0991 CP844
- B85-058 Development of the Minimum-Friction Adiabatic Engine. I. Kubo and S. R. Frisch, Cummins Engine Company, Inc.; and W. Bryzik, U. S. Army Tank-Automative Command (1, 5, p. 345) Article based on AIAA Paper 84-1396

- **B85-059 Internal Combustion Engine Combustion Chamber Process Studies at NASA Lewis Research Center.** Harold J. Schock, *NASA Lewis Research Center* (1, 5, p. 351) Article based on AIAA Paper 84-1316
- B85-060 Statistical Analysis Method for Prediction of Maximum Inlet Distortion. Dennis Sedlock, Air Force Wright Aeronautical Laboratories, Wright-Patterson Air Force Base (1, 5, p. 354) Article based on AIAA Paper 84-1274
- **B85-061 Calculation of a Hollow-Cone Liquid Spray in a Uniform Airstream.** G. J. Sturgess, S. A. Syed and K. R. McManus, *United Technologies Corporation* (1, 5, p. 360) Article based on AIAA Paper 84-1322
- **B85-062 Antiproton Annihilation Propulsion.** Robert Forward, *Hughes Research Laboratories* (1, 5, p. 370) Article based on AIAA Paper 84-1482
- **B85-063** Impact Bending of a Rotating, Rigid-Plastic Fan Blade. Tadashi Shioya, *University of Tokyo*; and William James Stronge, *University of Cambridge* (1, 5, p. 375) Article
- B85-064 Predicted Changes in Advanced Turboprop Noise with Shaft Angle of Attack. S. L. Padula and P. J. W. Block, NASA Langley Research Center (1, 5, p. 381) Article based on AIAA Paper 84-2347
- B85-065 Noise Testing of an Advanced Design Propeller in a Wind Tunnel. B. M. Glover Jr., E. I. Plunkett and C. D. Simcox, *Boeing Commercial Airplane Company* (1, 5, p. 388) Article based on AIAA Paper 84-2366
- B85-066 Integral Analysis of Transonic Shock Wave/Boundary-Layer Interaction in Internal Flow. Deepak Om and Morris E. Childs, *University of Washington* (1, 5, p. 393) Article based on AIAA Paper 83-1402
- **B85-067** Use of Silane-Methane Mixtures for Scramjet Ignition. M. Gerstein and P. R. Choudhury, *University of Southern California* (1, 5, p. 399) Article
- B85-068 Fault Analysis of Midchannel Power Takeoff in Diagonal Conducting Wall Magnetohydrodynamic Generators. Motoo Ishikawa, Kyoto University (Japan); Y. C. L. Wu and M. H. Scott, The University of Tennessee Space Institute (1, 5, p. 403) Article based on AIAA Paper 82-0922
- **B85-069 Determination of Thermal Transport Properties in Ammonium Perchlorate.** John A. Stark and R. E. Taylor, *Purdue University* (1, 5, p. 409) Technical Note
- **B85-070** Criteria for the Evaluation of Laser Solar Energy Converter Systems. W. L. Harries, *Old Dominion University* (1, 5, p. 411) Technical Note
- **B85-071 Vortex Shedding Studies in a Simulated Coaxial Dump Combustor.** R. S. Brown, R. Dunlap, S. W. Young and R. C. Waugh, *United Technologies* (1, 5, p. 413) Technical Note *Propulsion Company*; and G. J. Svob, *Aerojet Tactical Systems Company* (1, 6, p. 494) Article based on AIAA Paper 84-1293
- B85-086 Grain Deformation of Gas Flow Passages in Solid Rocket Motors. Adrian M. Messner, General Dynamics Pomona Division (1, 6, p. 498) Technical Note
- **B85-087 Performance** Parameters of Some New Hybrid Hypergols. S. R. Jain and G. Rajendran, *Indian Institute of Science* (1, 6, p. 500) Technical Note

- **B85-088 Combustion Related to Solid-Fuel Ramjets.** B. N. Raghunandan, E. R. Ravichandran and A. G. Marathe, *Indian Institute of Science* (1, 6, p. 502) Technical Note
- B85-072 Advanced Design Propeller Noise Testing in an Anechoic Chamber. E. I. Plunkett and P. C. Topness, Boeing Commercial Airplane Company; and C. D. Simcox, Boeing Commercial Airplane Company (1, 5, p. 415) Technical Note based on AIAA Paper 84-2262
- **B85-073** The Annular Flow, Electrothermal Plug Ramjet. B. D. Shaw, C. E. Mitchell and P. J. Wilbur, *Colorado State University* (1, 6, p. 417) Article
- B85-074 Dynamic Properties of Nonequilibrium Plasma in Disk MHD Generator. Y. Yoshikawa, S. Kabashima, H. Yamasaki and S. Shioda, *Tokyo Institute of Technology* (1, 6, p. 425) Article
- B85-075 Finite Difference Model for Vertical Axis Wind Turbines. R. Ganesh Rajagopalan, *Iowa State University*; and Jerome B. Fanucci, *West Virginia University* (1, 6, p. 432) Article
- B85-076 Counterrotating Intershaft Seals for Advanced Engines. W. L. Gamble, *Pratt & Whitney* (1, 6, p. 437) Article based on AIAA Paper 84-1216
- **B85-077** An Analysis of Pump Cavitation Damage. Michael C. Brophy, David R. Stinebring and Michael L. Billet, *The Pennsylvania State University* (1, 6, p. 441) Article
- B85-078 Multistage Compressor Stator/Rotor Interaction. Daniel L. Tweedt, *Iowa State University*; Michael D. Hathaway, *U. S. Army Research and Technology Laboratories*; and Theodore H. Okiishi, *Iowa State University* (1, 6, p. 449) Article based on AIAA Paper 85-0009
- **B85-079** Accurate and Efficient Solutions of Compressible Internal Flows. A. Dadone and M. Napolitano, *Universita degli studi di Bari* (1, 6, p. 456) Article based on AIAA Paper 84-1247
- B85-080 Calculation of Unsteady Fan Rotor Response Caused by Downstream Flow Distortions. Walter F. O'Brien, Wing-fai Ng and Scott M. Richardson, *Virginia Polytechnic Institute* and State University (1, 6, p. 464) Article based on AIAA Paper 84-2282
- B85-081 Calculation of Steady Flow About Propellers Using a Surface Panel Method. John L. Hess and Walter O. Valarezo, Douglas Aircraft Company (1, 6, p. 470) Article based on AIAA Paper 85-0283
- B85-082 A Linear Multivariable Dynamical Model of a Supersonic Inlet-Engine Combination. Yanchen Guan, Shin Yarng and Jiahnbo Yarng, Northwestern Polytechnical University (China) (1, 6, p. 477) Article based on AIAA Paper 84-1496
- B85-083 Multispark Flow Visualization of Lateral Jet Injection into a Swirling Cross Flow. G. B. Ferrell, K. Aoki and D. G. Lilley, *Oklahoma State University* (1, 6, p. 485) Article based on AIAA Paper 85-0059
- B85-084 Solid Fuel Ramjet Simulator Results: Experiment and Analysis in Cold Flow. J. Richardson, W. A. de Groot, J. I. Jagoda, R. E. Walterick, J. E. Hubbartt and W. C. Strahle, Georgia Institute of Technology (1, 6, p. 488) Article based on AIAA Paper 85-0329
- B85-085 Experimental Evaluation of As-Processed Propellant Grains. P. W. Veit and L. G. Landuk, Aerojet Strategic

Sequited by ()	NAGEMENT AND CIRCULA	ATION
A, TITLE OF PUBLICATION	IB. PUBLICATION N	D. Z. DATE OF FILING
JOHRNAL OF PROPULSION AND POWER		OCT. 9,1985
PAROUENCY OF ISSUE	JA, NO. OF ISSUES PUBLIS	HED 38 ANNUAL SUBSCRIPTION
	ANNUALLY	PAICE
BIMONTHLY. COMPLETE MAJLING ADDRESS OF KNOWN OFFICE OF PUBLICATION	6	\$24.00
1633 BROADWAY, NEW YORK, N.Y. 10019 SAME NA ADOVE FIRST HEADQUARTER OF GENERAL OR ADDRESS OF FUEL CHAPTER OF	STRONAUTICS, INC. STRONAUTICS, INC. STRONAUTICS STRO	Not seen MEZFNOT as alone; SAME AS ABOVE The seed of
AND ASTRONOMICA, IN.	28/16/16	7.00 (1)
KNOWN BONDHOLDERS, MORTGAGESS, AND OTHER SECURITY HE AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES III NAME FULL NAME	COMPLEYE MAILING ADDRESS	
NONE.		
FOR COMPLETION BY NORPHOFIT ORGANIZATIONS AUTHORIZED THE purpose, function, and independs rather at the argumentation and the ac- state of the purpose of the purpose of the action of t	ernet status for Federal income tax our RING (If cranged, INTHS change with	ion +21 I 2 DSM Unity poses (Check one) aublisher must rubmit explanation ing statement
FOR COMPLETION BY MONPHOFIT ORGANIZATIONS AUTHORIZED TO BORDA, Incline, and independent value of the speciation and the second of the second o	emet (ratus for Federal income tax our RING (If changed INTRS (Changed Change with AVERAGE NO COPIES EACH ISSUE QURING PRECEDING 12 MONTAS	ion =23 / C DSIM JALY; DOSM (Check one) Dublisher must Rubmit «20landition
FOR COMMETION BY NORMOST ORGANIZATION AUTHORIZED TO TREATMENT AUTHORIZED TO THE OPPOSITION OF THE OPPOSITION OPPOSITI	emet (ratus for Federal income tax our RING (If changed INTRS (Changed Change with AVERAGE NO COPIES EACH ISSUE QURING PRECEDING 12 MONTAS	ion +21 I 2 DSM Unity poses (Check one) aublisher must rubmit explanation ing statement
FOR COMM. ETION BY NORMAGIFT DRIGANIZATIORS AUTHORIZED TO TRESHIPM AND THE OPPOSED THE OFFICE AUTHORIZED TO THE OPPOSED THE OFFICE AUTHORIZED TO THE OPPOSED THE OFFICE AUTHORIZED TO THE OPPOSED THE	RING Ifficiants for Federal income tax our RING Ifficianged. INTHS Unanged in AVERAGE INC. COPIES EACH ISSUE QURING PRECEDING 12 MONTHS	ion -2/1 Child vary committee of the children
FOR COMMUNITORIST MONROPHY ORGANIZATIONS AUTHORIZED TO PROPERT AND AUTHORIZED TO PROPERTY AUTHORIZED	RING Ifficiants for Federal income tax our RING Ifficianged. INTHS Unanged in AVERAGE INC. COPIES EACH ISSUE QURING PRECEDING 12 MONTHS	non -2) /2 DMM JALY; DOME (CHICK DAY) TO DESCRIPTION OF THE STREET OF
OR CHARLETON BY HOWINGSTY ORGANIZATION AUTHORIZED TO PROPERTY OF THE PROPERTY	whele status for Federal income tax our skilling III consider to the state of the s	ion 23/10 DNN - May, DOOM Cheek on May Committee on Market on Mark
OR COMMETON BY HOMPROFIT ORGANIZATIONS AUTOMATED TO PROCEED TO THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROCESS OF	### (### ### ### #### #### ###########	ion 22/1: DNN 449; one CPAR Search madelines mart manus existention madelines to Constitute the constitute filled At New 2012/19 the constitute 2200 - 1654 1654 73
COL COMMETCION ET NOMPROFIT FRIGMERATORS AUTHORIZED FOR COMMETCION ET NOMPROFIT FRIGMERATORS AUTHORIZED THE OPPOSANCE DU JUNION OF COMMETCION OF THE OPPOSITION OPPOSITION OF THE OPPOSITION OPPOSIT	### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975) ### (1975)	ion 12/1/2 DNM way; DONE (CPRE SAF) TO SHE SAFE SAFE SAFE SAFE SAFE SAFE SAFE SAF
COR COMMANDOR SY NOWMONT ORGANIZATIONS AUTHORIZED THE OPPOSE, Inviting, and required states of the oppositions and than the oppositions and than the oppositions and than the oppositions are desired. Commandor of the opposition opposition of the opposition opposition of the opposition of the opposition opp	1750 1757 1757 1757 1757 1757 1757 1757 1757 1755	100 - 27 / 2 0000 - 4017 100 - 27 / 2 0000 - 4017 100 - 27 / 2 0000 - 4017 100 - 27 / 2 0000 - 4017 100 - 27 / 2 0000 - 4017 100 - 27 / 2 0000 100 - 27 / 2 000
TOR COMMATTON BY NORMOGET ORGANIZATIONS AUTHORIZED TO THE PUPPLAN HAVE AN ADMINISTRATION AUTHORIZED TO THE PUPPLAN HAVE AN ADMINISTRATION AUTHORIZED TO THE PUPPLAN HAVE AN ADMINISTRATION AND ADMINISTRATION ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTR	1/150 1/157 1/15	1054 1654 1727
FOR COMMETION BY NOWINGER TO REQUIRE AUTHORIZED FOR COMMETION BY NOWINGER TO REQUIRE AUTHORIZED TO EXPLOSE, INFOCUS, and independs without of the organization and the comments of the comme	1750 1757 1757 1757 1757 1757 1757 1757 1757 1755	### 1727 2004 Aury #### 1727 2004 Aury ####################################

From the AIAA Progress in Astronautics and Aeronautics Series

THERMOPHYSICS OF ATMOSPHERIC ENTRY-v. 82

Edited by T.E. Horton, The University of Mississippi

Thermophysics denotes a blend of the classical sciences of heat transfer, fluid mechanics, materials, and electromagnetic theory with the microphysical sciences of solid state, physical optics, and atomic and molecular dynamics. All of these sciences are involved and interconnected in the problem of entry into a planetary atmosphere at spaceflight speeds. At such high speeds, the adjacent atmospheric gas is not only compressed and heated to very high temperatures, but stongly reactive, highly radiative, and electronically conductive as well. At the same time, as a consequence of the intense surface heating, the temperature of the material of the entry vehicle is raised to a degree such that material ablation and chemical reaction become prominent. This volume deals with all of these processes, as they are viewed by the research and engineering community today, not only at the detailed physical and chemical level, but also at the system engineering and design level, for spacecraft intended for entry into the atmosphere of the earth and those of other planets. The twenty-two papers in this volume represent some of the most important recent advances in this field, contributed by highly qualified research scientists and engineers with intimate knowlege of current problems.

Published in 1982, 521 pp., 6×9, illus., \$35.00 Mem., \$55.00 List

TO ORDER WRITE: Publications Dept., AIAA, 1633 Broadway, New York, N.Y. 10019