SANDIA REPORT
SAND89—1248 • UC—234
Unlimited Release
Printed June 1989

A Bibliography of Reports from the Solar Thermal Distributed Receiver Systems Project at Sandia National Laboratories

J. A. Leonard, A. V. Poore, Editors

Prepared by
Sandia National Laboratories
Albuquerque, New Mexico 87185 and Livermore, California 94550
for the United States Department of Energy
under Contract DE-AC04-76DP00789

DO NOT MICROFILM
THIS PAGE

Issued by Sandia National Laboratories, operated for the United States Department of Energy by Sandia Corporation.

Available to DOE and DOE contractors from
Office of Scientific and Technical Information
PO Box 62
Oak Ridge, TN 37831

Prices available from (615) 576-8401, FTS 626-8401

Available to the public from
National Technical Information Service
US Department of Commerce
5285 Port Royal Rd
Springfield, VA 22161

NTIS price codes
Printed copy: A04
Microfiche copy: A01

Distribution
Category UC-234

SAND89-1248
Unlimited Release
Printed June 1989

SAND--89-1248

DE89 014321

A BIBLIOGRAPHY OF REPORTS FROM THE SOLAR THERMAL DISTRIBUTED RECEIVER SYSTEMS PROJECT AT SANDIA NATIONAL LABORATORIES

J. A. Leonard and A. V. Poore, Editors

Solar Energy Department
Sandia National Laboratories
Albuquerque, NM 87185

Blank Page

FOREWORD

The research and development described in this document were conducted within the U. S. Department of Energy's Solar Thermal Technology Program. The goal of the Solar Thermal Technology Program is to advance the engineering and scientific understanding of solar thermal technology and to establish the technology base from which private industry can develop solar thermal power production options for introduction into the competitive energy market.

Solar thermal technology concentrates solar radiation by means of tracking mirrors or lenses onto a receiver where the solar energy is absorbed as heat and converted into electricity or incorporated into products as process heat. The two primary solar thermal technologies, central receivers and distributed receivers, employ various point and line-focus optics to concentrate sunlight. Current central receiver systems use fields of heliostats (two-axis tracking mirrors) to focus the sun's radiant energy onto a single tower-mounted receiver. Parabolic dishes up to 17 meters in diameter track the sun in two axes and use mirrors to focus radiant energy onto a receiver. Troughs and bowls are line-focus tracking reflectors that concentrate sunlight onto receiver tubes along their focal lines. Concentrating collector modules can be used alone or in a multi-module system. The concentrated radiant energy absorbed by the solar thermal receiver is transported to the conversion process by a circulating working fluid. Receiver temperatures range from 100°C in low-temperature troughs to over 1500°C in dish and central receiver systems.

The Solar Thermal Technology Program is directing efforts to advance and improve promising system concepts through the research and development of solar thermal materials, components, and subsystems, and the testing and performance evaluation of subsystems and systems. These efforts are carried out through the technical direction of the Department of Energy and its network of national laboratories, who work with private industry. Together they have established a comprehensive, goal-directed program to improve performance and provide technically proven options for eventual incorporation into the nation's energy supply.

To be successful in contributing to an adequate national energy supply at reasonable cost, solar thermal energy must eventually be economically competitive with a variety of other energy sources.

Components and system-level performance targets have been developed as quantitative program goals. The performance targets are used in planning research and development activities, measuring progress, assessing alternative technology options, and making optimal component developments. These targets will be pursued vigorously to ensure a successful program.

This bibliography cites, with a few additions, all the documents that were published by, or sponsored by, Sandia National Laboratories in support of the Department of Energy's Solar Thermal Technology Program and its Distributed Receiver Project. The timing of this updated bibliography is important because it marks the end of an era in which distributed receiver and central receiver research and development were pursued separately. At the beginning of fiscal year 1989, the Department of Energy initiated a restructured solar thermal research and development strategy. The new program is mission oriented, with core technology development activities supporting the missions. For instance, the advanced electric technology mission has an objective to organize industry, user, and government consortia that will field competitive next-generation solar thermal electric system experiments within five years--regardless of whether the systems are distributed or central receivers; and the concentrator development core activity will develop optical materials and concentrators regardless of application.

In addition to combining the application technologies, the restructured program also unifies institutional participation. Sandia and the Solar Energy Research Institute are represented as appropriate in all the missions and core technology activities. In the future, updates to the solar thermal bibliography will reflect this program organization.

BIBLIOGRAPHY OF REPORTS
FROM THE SOLAR THERMAL DISTRIBUTED RECEIVER SYSTEMS PROJECT
AT SANDIA NATIONAL LABORATORIES

Abbin, J. P., Jr., Binary Rankine-Cycle Engines for Solar-Thermal Power Systems. American Society of Mechanical Engineers, 80-WA/Sol-19, November 1980.

Abbin, J. P., Jr., Description and Test Results for a Low Temperature 3 kWe Rankine Cycle Energy Conversion System. SAND77-1538, Albuquerque, Sandia National Laboratories, January 1978.

Abbin, J. P., Jr., Rankine Cycle Energy Conversion System Design Considerations for Low and Intermediate Temperature Sensible Heat Sources. SAND76-0363, Albuquerque, Sandia National Laboratories, October 1976, Reprinted October 1977.

Abbin, J. P., Jr., and W. R. Leuenberger, Program Cycle - A Rankine Cycle Analysis Routine. SAND74-0099, Albuquerque, Sandia National Laboratories, October 1974, revised and reprinted October 1977.

Abbin, J. P., Jr., D. O. Lee, and W. P. Schimmel, Sizing of Focused Solar Collector Fields with Specified Collector Tube Inlet Temperature. SAND74-0295, Albuquerque, Sandia National Laboratories, November 1974.

Abrams, M., The Temperature of Cavity Type Solar Absorbers with a Circulating Fluid, in Journal of Heat Transfer-Transactions of the ASME. Series C, Vol. 96, No. 4, 1974.

Adkins, D. R., Control Strategies and Hardware Used in Solar Thermal Applications. SAND86-1943, Albuquerque, Sandia National Laboratories, November 1987.

Alcone, J. M., and R. L. Alvis, Solar Powered Irrigation System. SAND76-0358, Albuquerque, Sandia National Laboratories, September 1976.

Alexander, G., D. F. Busch, R. D. Fischer, and W. A. Smith, of Battelle-Columbus Laboratories, Final Report on the Modification and 1978 Operation of the Gila-Bend Solar-Powered Irrigation Pumping System. SAND79-7009, Albuquerque, Sandia National Laboratories, March 1979.

Allred, R. E., and R. L. Champion, Development of Sheet Molding Compound Solar Collectors With Molded-In Silvered Glass Reflective Surfaces. SAND80-0702, Albuquerque, Sandia National Laboratories, December 1980.

Alvis, R. L., Solar Irrigation Program - Status Report, October 1976 through January 1977. SAND77-0380, Albuquerque, Sandia National Laboratories, April 1977.

Alvis, R. L., Solar Irrigation Experiment, in Sandia Technology. SAND77-0701, Vol. 3, No. 1, Albuquerque, Sandia National Laboratories, March 1977.

Alvis, R. L., The Department of Energy/Sandia National Laboratories Solar-Powered Irrigation Program. SAND78-0950C, Albuquerque, Sandia National Laboratories, July 1978.

Alvis, R. L., Some Solar Dish/Heat Engine Design Considerations. SAND84-1698, Albuquerque, Sandia National Laboratories, November 1984.

Alvis, R. L., Proceedings of the Distributed Solar Collector Summary Conference - Technology and Applications. SAND83-0137C, Albuquerque, Sandia National Laboratories, March 1983.

Alvis, R. L., Safety Analysis Report - MISR Qualification Test System and Test Site, (Modular Industrial Solar Retrofit Project). SAND82-1159, Albuquerque, Sandia National Laboratories, September 1982.

Alvis, R. L., Solar Thermal Energy: Abstracts of a Special Seminar for Industry, Feb. 3-4, 1981. SAND81-0373, Albuquerque, Sandia National Laboratories, March 1981.

Alvis, R. L., A Review of Selected On-Site DOE Small Solar Thermal Power Plant Experiments, in Proceedings of the 4th National Conference of Technology for Energy Conservation. Albuquerque, NM, October 1979.

Alvis, R. L., Solar Irrigation Deep Well Project, in Sandia Technology. SAND78-2041, Albuquerque, Sandia National Laboratories, November 1978.

Alvis, R. L. Sandia Technology. SAND78-2041, Albuquerque, Sandia National Laboratories, November 1978.

Alvis, R. L., and J. R. Rosborough, Microprocessor Based Power Cable Carrier Control, (MPC3). SAND82-0001, Albuquerque, Sandia National Laboratories, March 1982.

Alvis, R. L., and R. M. Workhoven, Qualification Tests in Support of the International Energy-Spanish 500 kWe Distributed Collector System. SAND80-0337, Albuquerque, Sandia National Laboratories, April 1980.

Alvis, R. L., and L. L. Lukens, Solar Irrigation Program Plan, Second Revision. SAND78-0308, Albuquerque, Sandia National Laboratories, May 1978.

Alvis, R. L., and P. C. Kaestner, Solar Irrigation Program Data Base Management System (SIP DBMS). SAND78-0641, Albuquerque, Sandia National Laboratories, May 1978.

Alvis, R. L., L. L. Lukens, A. M. Perino, and S. G. Vandevender, Preliminary Economic Analysis of Solar Irrigation Systems (SIS) for Selected Locations. SAND77-1403, Albuquerque, Sandia National Laboratories, November 1977.

Alvis, R. L., and R. T. McVeety, Commercialization of Solar Irrigation Systems Workshop. SAND78-0189, Albuquerque, Sandia National Laboratories, May 1978.

Alvis, R. L., and S. G. Vandevender, Solar Irrigation Plan. SAND77-0730, Albuquerque, Sandia National Laboratories, June 1977.

Alvis, R. L., and J. M. Alcone, Solar Powered Irrigation System. SAND76-0358, Albuquerque, Sandia National Laboratories, September 1976.

Anderson, H. E., I. J. Hall, and R. W. Harrigan, Handbook for Calculating Solar-Influenced Building Heat Losses. SAND79-2173, Albuquerque, Sandia National Laboratories, October 1980.

Anderson, H. E., E. C. Boes, I. J. Hall, R. Prairie, and R. Stromberg, Average Solar Radiation Available to Various Collector Types, in Proceedings of the Concentrating Solar Collector Conference at Georgia Tech. September 1977.

Anderson, H. E., E. C. Boes, I. J. Hall, R. P. Prairie, R. T. Stromberg, Availability of Direct, Total, and Diffuse Solar Radiation to Fixed and Tracking Collectors in the USA. SAND77-0885, Albuquerque, Sandia National Laboratories, June 1977.

Anderson, H. E., E. C. Boes, I.J. Hall, H.F. Engler, R.P. Stromberg, Distribution of Direct and Total Solar Radiation Availabilities for the USA. SAND76-0411, Albuquerque, Sandia National Laboratories, August 1976.

Arvizu, D. E., J. M. Freese, and R. B. Pettit, Specular Reflectance Loss of Solar Mirrors Due to Dirt Accumulation, in Proceedings, Seminar on Testing Solar Materials and Systems. National Bureau of Standards, Washington, DC, 22-24 May 1978.

Ashley, C. S., and S. T. Reed, Sol-Gel-Derived AR Coatings for Solar Receivers. SAND84-0662, Albuquerque, Sandia National Laboratories, September 1984.

Atomics International, Commercial Applications of Solar Total Energy Systems, Report No. AI-DOE-13230, 4 Vols., Canoga Park.

Atomics International, Design of Field Tests and Analysis of Experimental Results for L.S.E. 7 Meter Collector Foundations, Shenandoah, Georgia. SAND79-7075, Albuquerque, Sandia National Laboratories, December 1979.

Auld, H. E., Analysis of Field Test Results for Single-Axis Tracking Solar Collector Foundations. SAND79-7023, Albuquerque, Sandia National Laboratories, July 1979.

Auld, H. E., and J. B. West, Solar Collector Foundation Designs. SAND80-7070, Albuquerque, Sandia National Laboratories, September 1980. Work performed by Higgins, Auld & Associates, Inc.

Auld, H. E., and P. F. Lodde, Study of Foundation Designs for Single-Axis-Tracking Solar Collector Systems under Reduced Loading Conditions. SAND79-7016, Albuquerque, Sandia National Laboratories, May 1979.

Auld, H. E., and P. F. Lodde, Study of Low-Cost Foundation/Anchor Designs for Single-Axis-Tracking Solar Collector Systems. SAND78-7048, Albuquerque, Sandia National Laboratories, January 1979.

Awaya, H., and R. Bedard, Solar Walk-Off Protection. SAND84-7019, Albuquerque, Sandia National Laboratories, April 1985. Work performed by Jet Propulsion Laboratory.

BDM Corporation, Modular Industrial Solar Retrofit Specifications: Prepared Foods, Santa Teresa, New Mexico; A. E. Staley, Inc., Monte Vista, Colorado. SAND83-7031, Albuquerque, Sandia National Laboratories, February 1984.

Baker, F. L., and L. G. Rainhart, A Simplified Linear Parabolic Concentrator for Solar Energy. SAND80-1793, Albuquerque, Sandia National Laboratories, October 1980.

Bader, B. E., R. B. Pope, W. P. Schimmel, Jr., C. O. Lee, and W. H. McCulloch, A Combination of the Solar Energy and the Total Energy Concept-The Solar Community, (SLA-73-5318), in Proceedings of 8th Intersociety Energy Conversion Engineering Conference. By AIAA, ACS, AICHE, ASME, IEEE, SAE, University of Pennsylvania, Philadelphia, PA, 13-17 August 1973.

Banker, J. N., and C. E. Robertson, A Photographic Technique to Determine the Apparent Energy Distribution of the Solar Aureole. SLA-74-0090, Albuquerque, Sandia National Laboratories, March 1974.

Battleson, K. W., P. DeLaquil, III, J. D. Fish, H. F. Norris, and J. J. Iannucci, 1980 Solar Central Receiver Technology Evaluation. SAND80-8235, Albuquerque, Sandia National Laboratories, October 1980.

Bedard, R., and H. Awaya, Solar Walk-Off Protection. SAND84-7019, Albuquerque, Sandia National Laboratories, April 1985. Work performed by Jet Propulsion Laboratory.

Berg, R. S., Heliostat Dust Buildup and Cleaning Studies. SAND78-0510, Albuquerque, Sandia National Laboratories, March 1978.

Bergeron, K. D., SCRAM: A Fast Computational Model for the Optical Performance of Point Focus Solar Central Receiver Systems. SAND80-0433, Albuquerque, Sandia National Laboratories, April 1980.

Bergeron, K. D., Solar Enhanced Oil Recovery: An Assessment of Economic Feasibility. SAND79-0787, Albuquerque, Sandia National Laboratories, May 1979.

Bergeron, K. D., and J. M. Freese, Cleaning Strategies for Parabolic Trough Collector Systems: Guidelines for Decisions. SAND81-0385, Albuquerque, Sandia National Laboratories, June 1981.

Biester, A. W., Space Frame Solar Collector Development. SAND82-7039, Albuquerque, Sandia National Laboratories, April 1982. Work performed by the Budd Company.

Biester, A. W., Sheet Metal Solar Collector Development and Production. SAND82-7110, Albuquerque, Sandia National Laboratories, April 1982. Work performed by the Budd Company.

Biester, A. W., Development of Sheet Metal Parabolic Trough Reflector Panels. SAND81-7038, Albuquerque, Sandia National Laboratories, March 1982. Work performed by the Budd Company.

Biggs, F., and C. N. Vittitoe, Mathematical Modeling of Solar Concentrators. International Solar Energy Society Annual Meeting, Winnipeg, Manitoba, 15-20 August 1976.

Boes, E. C., Estimating the Direct Component of Solar Radiation. SAND75-0565, Albuquerque, Sandia National Laboratories, November 1975.

Boes, E. C., Solar Radiation Availability to Various Collector Geometries: A Preliminary Study. SAND76-0009, Albuquerque, Sandia National Laboratories, February 1976.

Boes, E. C., Collector Fields: Potential for Improvements, in Proceedings of the IEA/SSPS Deliverable Reviews Meeting. Almeria, Spain, 15-18 October 1984.

Boes, E. C., Collector Field Maintenance: Distributed Solar Thermal Systems, in Proceedings of the IEA/SSPS Deliverable Reviews Meeting. Almeria, Spain, 15-18 October 1984.

Boes, E. C., Estimating Monthly Means of Daily Totals of Direct Normal Solar Radiation and of Total Solar Radiation on a Southfacing, 45° Tilted Surface. SAND77-0874, Albuquerque, (Joint) Sandia National Laboratories, July 1977.

Boes, E. C., Solar Radiation Availability for New Mexico. SAND77-0004, Albuquerque, Sandia National Laboratories, February 1977.

Boes, E. C., H. Anderson, I. Hall, R. Prairie, and R. Stromberg, Average Solar Radiation Available to Various Collector Types, in Proceedings of the Concentrating Solar Collector Conference. Georgia Tech., September 1977.

Boes, E. C., H. E. Anderson, I. J. Hall, R. P. Prairie, R. T. Stromberg, Availability of Direct Total, and Diffuse Solar Radiation to Fixed and Tracking Collectors in the USA. SAND77-0885, Albuquerque, (Joint) Sandia National Laboratories, August 1977.

Boes, E. C., C. Randall, and M. Whitson, Hourly Direct-Normal Solar Radiation Data Tapes for the United States, in Proceedings of the International Solar Energy Society. American Section Meeting, June 1977.

Boes, E. C., H. E. Anderson, I. J. Hall, H. F. Engler, R. P. Stromberg, Distribution of Direct and Total Solar Radiation Availabilities for the USA, (SAND76-0411) in Proceedings of the Sharing the Sun. International Solar Energy Society Meeting, Winnipeg, August 1976.

Bond, G. N., T. D. Harrison, and A. C. Ratzel, Design Consideration for a Proposed Passive Vacuum Solar Annular Receiver. SAND78-0982, Albuquerque, Sandia National Laboratories, April 1979.

Boughton, B. D., and A. C. Ratzel, CIRCE .001: A Computer Code for Analysis of Point-Focus Concentrators with Flat Targets. SAND86-1866, Albuquerque, Sandia National Laboratories,

Boultinghouse, K. D., Development of a Solar Flux Tracker for Parabolic Trough Collectors. SAND82-1600, Albuquerque, Sandia National Laboratories, September 1982.

Brandvold, G. E., Solar Total-Energy Community Project. SLA-74-0124, Albuquerque, Sandia National Laboratories, March 1974.

Brinker, C. J., and R. B. Pettit, Use of Sol-Gel Thin Films in Solar Energy Applications, in Proceedings of the SPIE Optical Materials Technology for Energy Efficiency and Solar Energy Conversion. No. IV, 1985.

Bruce, P. E., and R. Hammock, A Case Study of Shenandoah Energy Conservation Features in Connection with Solar Total Energy-Large Scale Experiment. ALOP/3994-78-1, March 1978.

Brumleve, T. D., Eye Hazard and Glint Evaluation for the 5-MWt Solar Thermal Test Facility. SAND76-8022, Albuquerque, Sandia National Laboratories, May 1977.

Burolla, V. P., Prediction of Yearly Fluid Replenishment Rates for Hydrocarbon Fluids in Thermal Energy Storage Systems. SAND79-8209, Albuquerque, Sandia National Laboratories, April 1979.

Busch, D. F., G. Alexander, R. D. Fischer, and W. A. Smith, Final Report on the Modification and 1978 Operation of the Gila-Bend Solar-Powered Irrigation Pumping System. SAND79-7009, Albuquerque, Sandia National Laboratories, March 1979. Work performed by Battelle-Columbus Laboratories.

Butler, B. L., Common Sense Applications of Solar Energy in the Home. SAND76-0685, Albuquerque, Sandia National Laboratories, January 1977.

Butler, B. L., and R. B. Pettit, Laser Ray Trace and Bi-Directional Reflectometry Measurements of Various Solar Concentrators, in Proceedings ERDA Concentrating Solar Collector Conference/Exhibit/Workshop. Atlanta, GA, 26-28 September 1977.

Butler, B. L., and R. B. Pettit, Optical Evaluation Techniques for Reflecting Solar Concentrators, in Proceedings of the Society of Photo-Optical Instrumentation Engineers. 21st Annual Technical Symposium, Vol. 114, San Diego, CA, 22-26 August 1977.

Butler, B. L., and R. B. Pettit, Mirror Materials and Selective Coatings, in Proceedings of the Semiannual Review, ERDA Thermal Power Systems, Dispersed Power Systems, Distributed Collectors and Research and Development. SAND77-0111, Albuquerque, Sandia National Laboratories, 26-27 January 1977.

Butler, B. L., and R. B. Pettit, Materials Development for Solar Total Energy. Highlights Report, Solar Thermal Conversion Program, Dispersed Power Projects, Berkeley, CA, 20-22 July 1976.

Cameron, C. P., Operational Experience From Solar Thermal Energy Projects, in Proceedings of the Fifth Parabolic Dish Solar Thermal Power Program Annual Review. Indian Wells, CA, 6-8 December 1983.

Cameron, C. P., and V. E. Dudley, Acurex Solar Corporation Modular Industrial Solar Retrofit Qualification Test Results. SAND85-2316, Albuquerque, Sandia National Laboratories, October 1986.

Cameron, C. P., and V. E. Dudley, The BDM Corporation Modular Industrial Solar Retrofit Qualification Test Results. SAND85-2317, Albuquerque, Sandia National Laboratories, October 1986.

Cameron, C. P., and V. E. Dudley, Custom Engineering, Inc., Modular Industrial Solar Retrofit Qualification Test Results. SAND85-2318, Albuquerque, Sandia National Laboratories, October 1986.

Cameron, C. P., V. E. Dudley, and A. A. Lewandowski, Foster Wheeler Solar Development Corporation Modular Industrial Solar Retrofit Qualification Test Results. SAND85-2319, Albuquerque, Sandia National Laboratories, October 1986.

Cameron, C. P., and V. E. Dudley, Solar Kinetics, Inc., Modular Industrial Solar Retrofit Qualification Test Results. SAND85-2320, Albuquerque, Sandia National Laboratories, October 1986.

Cameron, C. P., and V. E. Dudley, Testing of Modular Industrial Solar Retrofit Industrial Process Steam Systems, (SAND84-1042C), in Proceedings of the International Energy Agency. Workshop on the Design and Performance of Large Solar Thermal Collector Arrays, San Diego, CA, 10-14 June 1984.

Caputo, R. S., and L. G. Radosevich, An Assessment of Solar Thermal Concentrator Research and Development. SAND84-8228, Albuquerque, Sandia National Laboratories, June 1984.

Caskey, D. L., Selected Residential Electric Rates and Rate Structures in the U.S. July 1979. SAND79-2110, Albuquerque, Sandia National Laboratories, January 1980.

Cerchiara, R. R., G. H. Meier, and F. S. Pettit, Final Report on Program to Study the Corrosion of Alloys in SO^2-SO^3-SO^2 Gas Mixtures. Pittsburgh, University of Pittsburgh, Materials Science and Engineering Department, October 1987.

Champion, R. L., Heliostat Development Program Overview, in Proceedings of the Solar Central Receiver Annual Meeting. San Diego, CA, 24-26 April 1984.

Champion, R. L., and R. E. Allred, Development of Sheet Molding Compound Solar Collectors With Molded-In Silvered Glass Reflective Surfaces. SAND80-0702, Albuquerque, Sandia National Laboratories, December 1980.

Champion, R. L., Approaches to Fabrication of Parabolic Trough Reflectors, in Proceedings of 7th SAMPE Technical Conference. Albuquerque, NM, 14-16 October 1975.

Champion, R. L., and M. W. Edenburn, Solar Total Energy Program Semiannual Report - April 1975 - September 1975. SAND76-0078, Albuquerque, Sandia National Laboratories, April 1976.

Chiang, C. J., Thermal Receiver Designs for Line-Focus Solar Collectors. SAND81-1862, Albuquerque, Sandia National Laboratories, February 1982.

Clausing, A. M., Potential of Solar Collector With a Stationary Spherical Reflector and a Tracking Absorber for Electrical Power Production. SAND76-8039, Albuquerque, Sandia National Laboratories, August 1976.

Clausing, A. M., Optical and Thermal Characteristics of a Solar Collector with a Stationary Spherical Reflector and a Tracking Absorber, in Proceedings of Society Photo-Optical Instrumentation Engineers Annual Technical Symposium. Vol. 85, San Diego, CA, 23-27 August 1976.

Colorado State University, Mean Wind Forces on Parabolic - Trough Solar Collectors. SAND80-7023, Albuquerque, Sandia National Laboratories, May 1980.

Connolly, J. M., Computer Modeling of the Shenandoah Total Energy Project. in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, Albuquerque, NM, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Dehne, Hans, Development of an Evacuated Receiver for Line-Focus Solar Thermal Collectors. SAND86-7041, Albuquerque, Sandia National Laboratories, January 1987.

DeLaquil, P. K. W., J. D. Fish, H. F. Norris, and J. J. Iannucci, 1980 Solar Central Receiver Technology Evaluation. SAND80-8235, Albuquerque, Sandia National Laboratories, October 1980.

Dellin, T. A., and M. J. Fish, A User's Manual for DELSOL: A Computer Code for Calculating the Optical Performance, Field Layout, and Optimal System Design for Solar Central Receiver Plants. SAND79-8215, Albuquerque, Sandia National Laboratories, June 1979.

Diggs, J. M., Pipe Design Optimization Study, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, Albuquerque, NM, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Diver, R. B., and J. D. Fish, Solar Test of an Integrated Sodium Reflux Heat-Pipe Receiver/Reactor for Thermochemical Energy Transport, in Proceedings of the Fourth International Symposium on Research, Development, and Applications of Solar Thermal Technology. Santa Fe, NM, June 13-17, 1988.

Diver, R. B. and C. E. Andraka, Reflux Heat-Pipe Solar Receivers for Dish-Electric System, in Proceedings of the 23rd Intersociety Energy Conversion Engineering Conference. Denver, August 1-5, 1988.

Diver, R. B., and C. E. Andraka, CAV2--A PC Based Computer Program for Predicting Incident Solar Flux Distributions Inside Dish Cavity Receivers. SAND86-0927, Albuquerque, Sandia National Laboratories, February 1987.

Diver, R. B., A. C. Ratzel, B. D. Boughton, and T. R. Mancini, CIRCE: A Computer Code for the Analysis of Point-Focus Solar Concentrators. ASME-JSME Solar Energy Conference, Honolulu, March 22-27, 1987.

Diver, R. B., B. Ziph, and T. M. Godett, Reflux Heat-Pipe Solar Receiver for a Sterling Dish-Electric System, in Proceedings of the 22nd Intersociety Energy Conversion Engineering Conference. Philadelphia, August 10-14, 1987.

Diver, R. B., Receiver/Reactor Concepts for Thermochemical Transport of Solar Energy, in Journal of Solar Energy Engineering, Vol. 109, August 1987.

Diver, R. B., Transporting Solar Energy with Chemistry, in Chemtech. Vol. 17, No. 10, pp. 606-611, October 1987.

Diver, R. B., ed., Proceedings of the Solar Thermal Technology Conference, Albuquerque, New Mexico, June 17 - 19, 1986. SAND86-0536, Albuquerque, Sandia National Laboratories, June 1986.

Drotning, W. D., Optical Properties of a Solar-Absorbing Molten Salt Heat Transfer Fluid. SAND77-0938, Albuquerque, Sandia National Laboratories, June 1977.

Drumheller, D. S., C. D. Lundergan, and S. Thunborg, Proposal to NSF for Support of Systems Analysis Computer Program Proposed for Solar Community Total Energy Concept. SLA-73-1056, Albuquerque, Sandia National Laboratories, December 1973.

Dudley, V. E., and C. P. Cameron, Testing of Modular Industrial Solar Retrofit Industrial Process Steam Systems, (SAND84-1042C), in Proceedings of the International Energy Agency. Workshop on the Design and Performance of Large Solar Thermal Collector Arrays. San Diego, CA, 10-14 June 1984.

Dudley, V. E., and R. M. Workhoven, Performance Testing of the Suntec 9-FT Sagged Glass Solar Collector. SAND81-0370, Albuquerque, Sandia National Laboratories, March 1982.

Dudley, V. E., and R. M. Workhoven, Performance Testing of the Acurex Solar Collector Model 3001-03. SAND80-0872, Albuquerque, Sandia National Laboratories, March 1982.

Dudley, V. E., and R. M. Workhoven, Performance Testing of the TOLTEC TI-410 Concentrating Solar Collector. SAND81-0369, Albuquerque, Sandia National Laboratories, July 1981.

Dudley, V. E., and R. M. Workhoven, Performance Testing of the FMC Fresnel-Belt Concentrating Solar Collector. SAND80-0011, Albuquerque, Sandia National Laboratories, January 1980.

Dudley, V. E., and R. M. Workhoven, Performance Testing of the Scientific Atlanta Faceted Fixed Mirror Solar Concentrator. SAND80-0012, Albuquerque, Sandia National Laboratories, January 1980.

Dugan, V. L., and J. A. Leonard, Line-Focus Concentrating Solar Collectors. SAND80-2394C, Albuquerque, Sandia National Laboratories, October 1980.

Dunn, J. C., M. E. Fewell, N. R. Grandjean, and M. W. Edenburn, User's Manual for Computer Code SOLTES-1 (Simulator for Large Thermal Energy Systems). SAND78-1315, Albuquerque, Sandia National Laboratories, September 1978.

Dworzak, W. R., T. D. Harrison, and C. A. Folkner, Jr., Solar Collector Module Test Facility - Instrumentation Fluid Loop Number One. SAND76-0425, Albuquerque, Sandia National Laboratories, January 1977.

Edenburn, M. W., Performance Analysis of a Cylindrical Parabolic Focusing Collector and Comparison with Experimental Results. 1975 Intl. Solar Energy Soc. Conf., Solar Energy, 18, Los Angeles, CA, 28 July - 1 August 1975.

Edenburn, M. W., Building 832 and Small Neighborhood Applications for Sandia National Laboratories Solar Energy System Test Bed. SAND75-0202, Albuquerque, Sandia National Laboratories, July 1975.

Edenburn, M. W., Sandia National Laboratories Energy System Simulation Computer Program. 1975 ISES, Los Angeles, CA, 30 July 1975.

Edenburn, M. W., Performance of a Focusing Cylindrical Parabolic Solar Energy Collector - Analysis and Computer Program. SLA-74-0031, Albuquerque, Sandia National Laboratories, April 1974.

Edenburn, M. W., Optimum Operating Conditions for a Cylindrical Parabolic Focusing Collector/Rankine Power Generation Cycle System. 12th IECEC Conference, Washington, DC.

Edenburn, M. W., M. E. Fewell, N. R. Grandjean, and J. C. Dunn, User's Manual for Computer Code SOLTES-1 (Simulator for Large Thermal Energy Systems). SAND78-1315, Albuquerque, Sandia National Laboratories, September 1978.

Edenburn, M. W., and R. L. Champion, Solar Total Energy Program Semiannual Report - April 1975 - September 1975. SAND76-0078, Albuquerque, Sandia National Laboratories, April 1976.

Edenburn, M. W. and N. R. Grandjean, Brief Description of SOLSYS-Energy System Simulation Computer Program. SAND75-0388, Albuquerque, Sandia National Laboratories, September 1975.

Edenburn, M. W., and N. R. Grandjean, Energy System Simulation Computer Program - SOLSYS. SAND75-0048, Albuquerque, Sandia National Laboratories, June 1975.

Edenburn, M. W., R. P. Stromberg, and S. Thunborg, Jr., Proposal to NSF for Support of Solar Community Systems Analysis. SLA-74-0068, Albuquerque, Sandia National Laboratories, February 1974.

Edenburn, M. W., and S. Thunborg, Jr., Systems Analysis Computer Program Proposed for Solar Community Total Energy Concept. SLA-73-0950, Albuquerque, Sandia National Laboratories, October 1973.

Eggers, E. H., Installation and Startup of the Fixed Mirror Solar Concentrator Collector Field Subsystem, Final Report for the Period 1/31/77 through 3/31/79. Work performed by General Atomic Co.

Erickson, S. L., Analytical Procedures for ChroOnyx Black Chrome Plating Solutions. SAND78-1466, Albuquerque, Sandia National Laboratories, August 1978.

Ernst, L. N., and R. S. Rusk, Solar Collector Test Facility. SAND74-0405, Albuquerque, Sandia National Laboratories, June 1975.

Fewell, M. E., N. R. Grandjean, J. C. Dunn, and M. W. Edenburn, User's Manual for Computer Code SOLTES-1 (Simulator for Large Thermal Energy Systems). SAND78-1315, Albuquerque, Sandia National Laboratories, September 1978.

Fish, J. D., Application of Solar Technology to Fuel Production, Chemical Processing, and Thermochemical Energy Transport: Status and Future, in Proceedings of 1987 ISES World Congress. Hamburg, September 1987.

Fish, J. D. and D. C. Hawn, CO_2 Reforming of Methane: Closed-Loop Experiments in the CLEA Facility, in Proceedings, Third International Workshop on Solar Thermal Central Receiver Systems. Konstanz, W. Germany, June 1986.

Fish, J. D., and D. C. Hawn, Closed Loop Thermochemical Energy Transport Based on CO2 Reforming of Methane: Balancing the Reaction Systems, in Proceedings of the 21st IECEC. San Diego, CA, August 1986. Also in Journal of Solar Energy Engineering, Vol. 109, August 1987.

Fish, J. D., Overture to CLEA: The Closed Loop Efficiency Analysis Project. SAND84-0502, Albuquerque, Sandia National Laboratories, April 1985.

Fish, J. D., and D. C. Hawn, Overview of the CLEA Project and Initial Results on the CO^2/CH^4 Thermochemical Transport System, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference,. Albuquerque, NM, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Fish, J. D., K. W. Battleson, P. DeLaquil, III, H. F. Norris, and J. J. Iannucci, 1980 Solar Central Receiver Technology Evaluation. SAND80-8235, Albuquerque, Sandia National Laboratories, October 1980.

Fish, M. J., and T. A. Dellin, A User's Manual for DELSOL: A Computer Code for Calculating the Optical Performance, Field Layout, and Optimal System Design for Solar Central Receiver Plants. SAND79-8215, Albuquerque, Sandia National Laboratories, June 1979.

Fischer, R. D., G. Alexander, and D. F. Busch, Final Report on the Modification and 1978 Operation of the Gila-Bend Solar-Powered Irrigation Pumping System. SAND79-7009, Albuquerque, Sandia National Laboratories, March 1979. Work performed by Battelle-Co.

FMC Corporation, Fresnel Belt Solar Collector Development. SAND78-7037, Albuquerque, Sandia National Laboratories, n.d.

Folkner, C. A., W. R. Dworzak, and T. D. Harrison, Solar Collector Module Test Facility - Instrumentation Fluid Loop Number One. SAND76-0425, Albuquerque, Sandia National Laboratories, January 1977.

Fox, J. V., Thermochemical Energy Transport Systems Study. SAND83-7464, Albuquerque, Sandia National Laboratories, March 1984. Work performed by Fox Consulting Service Co.

Freese, J. M., The Development of a Portable Specular Reflectometer for Field Measurements of Solar Mirror Materials. SAND78-1918, Albuquerque, Sandia National Laboratories, October 1978.

Freese, J. M., Effects of Outdoor Exposure on the Solar Reflectance Properties of Silvered Glass Mirrors. SAND78-1649, Albuquerque, Sandia National Laboratories, 20 September 1978.

Freese, J. M., D. E. Arvizu, and R. B. Pettit, Specular Reflectance Loss of Solar Mirrors Due to Dirt Accumulation, in Proceedings Seminar on Testing Solar Materials and Systems. National Bureau of Standards, Washington, DC, 22-24 May 1978.

French, E. P., Deterministic Insolation Model Program Description and User's Guide. SAND78-7044, Albuquerque, Sandia National Laboratories, February 1979. Work performed by Atomics International Division.

Fujita, T., J. Bowyer, W. Gates, L. Jaffe, and W. Revere, Projected Techno-Economics Characteristics of Solar Thermal Parabolic Dish Electric Power Modules. JPL 5105-157, Jet Propulsion Laboratory, Pasadena, CA, September 1985.

Gardner, J. L., Sandia Solar Energy Title. SAND77-0929, Albuquerque, Sandia National Laboratories, June 1977.

Gartling, D. K., and C. E. Hickox, The Effects of Nonuniformities on Natural Convection in Annular Receiver Geometries. SAND77-1641, Albuquerque, Sandia National Laboratories, December 1977.

Gartling, D. K., C. E. Hickox, and A. C. Ratzel, Techniques for Reducing Thermal Conduction and Natural Convection Heat Losses in Annular Receiver Geometries. ASME Book No. H00104, Heat Transfer in Solar Energy Systems, ASME Winter Annual Meeting, Atlanta, GA, November 1977.

Gartling, D. K., C. E. Hickox, and A. C. Ratzel, Energy Loss by Thermal Conduction and Natural Convection in Annular Solar Receivers. Fifteenth International Thermal Conductivity Conference, Ottawa, Ontario, Canada, August 1977.

Gerwin, H. J., A Summary Report: Suntec Solar Linear Array Thermal System (SLATS) Test Results. SAND79-0658, Albuquerque, Sandia National Laboratories, August 1979.

Gerwin, H. J., and G. S. Kinoshita, Solar Total Energy Project Semiannual Report, April - September 1977. SAND78-0109, Albuquerque, Sandia National Laboratories, April 1978.

Gerwin, H. J., and S. N. Zender, Sandia Solar Total Energy Test Facility Project Final Report. Suntec 260 Square Meter SLATS Subsystem. SAND78-7004, Albuquerque, Sandia National Laboratories, November 1977.

Gillen, K. T., and K. E. Mead, Predicting Life Expectancy and Simulating Age of Complex Equipment Using Accelerated Aging Techniques. SAND79-1561, Albuquerque, Sandia National Laboratories, April 1980.

Grandjean, N. R., and D. E. Randall, Correlations of Insolation and Wind Data for SOLMET Stations. SAND82-0094, Albuquerque, Sandia National Laboratories, April 1982.

Grandjean, N. R., and G. W. Treadwell, Systematic Rotation and Receiver Location Error Effects on Parabolic Trough Annual Performance. SAND81-0159, Albuquerque, Sandia National Laboratories, April 1981.

Grandjean, N. R., M. E. Fewell, J. C. Dunn, and M. W. Edenburn, User's Manual for Computer Code SOLTES-1 (Simulator for Large Thermal Energy Systems). SAND78-1315, Albuquerque, Sandia National Laboratories, September 1978.

Grandjean, N. R., and G. W. Treadwell, Annual Performance Comparisons of Parabolic Trough and Flat Plate Collectors Based on Measured Insolation, in Proceedings of the ERDA Solar Concentrating Collector Conference. Georgia Tech., September 1977.

Grandjean, N. R. and M. W. Edenburn, Brief Description of SOLYS - Energy System Simulation Computer Program. SAND75-0388, Albuquerque, Sandia National Laboratories, September 1975.

Grandjean, N. R., and M. W. Edenburn, Energy System Simulation Computer Program - SOLYS. SAND75-0048, Albuquerque, Sandia National Laboratories, June 1975.

Gross, C. A., and D. W. Russell, Presentation on Reliability Evaluation of the Solar Total Energy Project (STEP), July 1984. Work performed by Auburn University.

Gross, R. J., C. E. Hickox, and C. E. Hackett, Numerical Simulation of Dual-Media Thermal Energy Storage Systems. SAND78-2282, Albuquerque, Sandia National Laboratories, August 1979.

Haas, S. A., R. W. Hunke, and A. J. Poche, Preliminary Design of the Solar Total Energy-Large Scale Experiment at Shenandoah, Georgia, in Proceedings of the 1978 Intersociety Energy Conversion Engineering Conference. (IECEC '78), Society of Automotive Engineers, 20-25 August 1978.

Hackett, C. E., Comparative Analyses of Solar Energy Storage Cycles. SAND79-1803C, Albuquerque, Sandia National Laboratories. (Conference paper.)

Hackett, C. E., R. J. Gross, and C. E. Hickox, Numerical Simulation of Dual-Media Thermal Energy Storage Systems. SAND78-2282, Albuquerque, Sandia National Laboratories, August 1979.

Hall, I. J., R. W. Harrigan, and H. E. Anderson, Handbook for Calculating Solar-Influenced Building Heat Losses. SAND79-2173, Albuquerque, Sandia National Laboratories, October 1980.

Hall, I. J., E. C. Boes, H. Anderson, R. Prairie, and R. Stromberg, Average Solar Radiation Available to Various Collector Types, in Proceedings of the Concentrating Solar Collector Conference. Georgia Tech., September 1977.

Hall, I. J., E. C. Boes, H. E. Anderson, R. P. Prairie, R. T. Stromberg, Availability of Direct, Total, and Diffuse Solar Radiation to Fixed and Tracking Collectors in the USA. SAND77-0885, Albuquerque, (Joint) Sandia National Laboratories, August 1977.

Hammock, R., and P. E. Bruce, A Case Study of Shenandoah Energy Conservation Features in Connection with Solar Total Energy-Large Scale Experiment. ALOP/3994-78-1, March 1978.

Hansche, B. D., Laser Ray Trace Tester for Parabolic Trough Solar Collectors, in Proceedings of the 24th International Instrumentation Symposium. Albuquerque, NM, ISBN 87664-407-8, 1-5 May 1978.

Harley, E. L., Two-Year Development Plan. Albuquerque, Sandia National Laboratories, October 1985.

Harley, E. L., Retrofit Sunroom Thermal Performance Based on the Typical Meteorological Year Weather Data, in Proceedings International Solar Energy Society Conference. Atlanta, GA, May 1979.

Harley, E. L., and W. B. Stine, Long-Term Performance Evaluation of Six Intermediate-Temperature Solar Industreial Process Heat Systems, in Proceedings of the Intersol '85. Biennial Congress of the International Solar Energy Society (ISES), Montreal, Quebec, Canada, 23-29 June 1985.

Harley, E. L., and W. B. Stine, Solar Industrial Process Heat (IPH) Project Technical Report October 1982-September 1983. SAND84-1812, Albuquerque, Sandia National Laboratories, November 1984.

Harley, E. L., and W. B. Stine, Solar Industrial Process Heat (IPH) Project Technical Report October 1981-September 1982. SAND83-2074, Albuquerque, Sandia National Laboratories, October 1983.

Harrigan, R. W., Handbook for the Conceptual Design of Parabolic Trough Solar Energy System Process Heat Applications. SAND81-0763, Albuquerque, Sandia National Laboratories, July 1981.

Harrigan, R. W., Sandia National Laboratories In Hours Course on Solar Energy, Videotape, Albuquerque, Sandia National Laboratories, February 1979.

Harrigan, R. W., Solar Total Energy Systems Design. SAND78-0449, Albuquerque, Sandia National Laboratories, August 1978.

Harrigan, R. W., Factors Affecting Market Initiation of Solar Total Energy. SAND78-148C, Energy 1978 (IEEE Meeting), Tulsa, OK, 16-18 April 1978.

Harrigan, R. W., Economic Study of Solar Total Energy. SAND76-5219C, ISES Meeting in Winnipeg, Manitoba, Canada, 15-20 August 1976.

Harrigan, R. W., Application of Solar Total Energy to a Mixed-Load Community. SAND75-0542, Albuquerque, Sandia National Laboratories, December 1975.

Harrigan, R. W., and W. B. Stine, Solar Energy Fundamentals and Design with Computer Applications. New York, John Wiley & Sons, 1985.

Harrigan, R. W., H. E. Anderson, and I. J. Hall, Handbook for Calculating Solar-Influenced Building Heat Losses. SAND79-2173, Albuquerque, Sandia National Laboratories, October 1980.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data of Low- to Medium-Temperature Line-Focusing Solar Collectors, Applied Solar Resources, Suntracker Model Collector. SAND82-0092/5, Albuquerque, Sandia National Laboratories, February 1982.

Harrison, T. D., Midtemperature Solar Systems Facility Predictions for Thermal Performance Based on Test Data of Low- to Medium-Temperature Line-Focusing Solar Collectors, Whiteline Model W-11A Collector. SAND82-0092/4 of 5, Albuquerque, Sandia National Laboratories, February 1982.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data of Low- to Medium-Temperature Line-Focusing Solar Collectors, Sunpower Systems Solar Collector. SAND82-0092/3 of 5, Albuquerque, Sandia National Laboratories, February 1982.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data of Low- to Medium-Temperature Line-Focusing Solar Collectors, E-Systems Fresnel Lens Collector. SAND82-0092/1 of 5, Albuquerque, Sandia National Laboratories, February 1982.

Harrison, T. D., Program for Predicting Thermal Performance Based on Test Data of Low- to Medium-Temperature Line-Focusing, Concentrating Solar Collectors. SAND81-0763, Albuquerque, Sandia National Laboratories, July 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (Toltec Two-Axis Tracking Solar Collector with 3M Acrylic Polyester Film Reflector Surface). SAND80-1964/12, Albuquerque, Sandia National Laboratories, June 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (Custom Engineering Trough with Glass Reflector Surface and Sandia-Designed Receivers). SAND80-1964/10, Albuquerque, Sandia National Laboratories, May 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (Polisolar Model POL Solar Collector with Glass Reflector Surface). SAND80-1964/11, Albuquerque, Sandia National Laboratories, May 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (Alpha Solarco Model 104 Solar Collector with 0.125-inch Schott Low-Iron Glass Reflector Surface). SAND80-1964/8, Albuquerque, Sandia National Laboratories, April 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (Solar Kinetics T-600 Solar Collector with FEK 244 Reflector Surface). SAND80-1964/9, Albuquerque, Sandia National Laboratories, April 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (Acurex Solar Collector with Glass Reflector Surface). SAND80-1964/6, Albuquerque, Sandia National Laboratories, March 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (AAI Solar Collector with Pressure-Formed Glass Reflector Surface). SAND80-1964/5, Albuquerque, Sandia National Laboratories, March 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance Based on Test Data (Sun-Heat Nontracking Solar Collector). SAND80-1964/4, Albuquerque, Sandia National Laboratories, March 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance of the Acurex Solar Collector with FEK 244 Reflector Surface. SAND80-1964/3, Albuquerque, Sandia National Laboratories, January 1981.

Harrison, T. D., Midtemperature Solar Systems Test Facility Program for Predicting Thermal Performance of Line-Focusing, Concentrating Solar Collectors. SAND80-1964, Albuquerque, Sandia National Laboratories, November 1980.

Harrison, T. D., Midtemperature Solar Systems Test Facility Predictions for Thermal Performance of the Solar Kinetics T-700 Solar Collector with FEK 244 Reflector Surface. SAND80-1964/1, Albuquerque, Sandia National Laboratories, November 1980.

Harrison, T. D., Temperature Solar Test Facility Predictions for Thermal Performance of the SUNTEC Solar Collector with Heat-Formed Glass Reflector Surface. SAND80-1964/2, Albuquerque, Sandia National Laboratories, November 1980.

Harrison, T. D., Manufacturers of Line-Focus, Concentrating Solar Collectors (Revised), Albuquerque, Sandia National Laboratories, 17 November 1980.

Harrison, T. D., Midtemperature Solar Systems Test Facility Test Results: Effects of Severe Hailstorm on August 9, 1978. SAND78-2182, Albuquerque, Sandia National Laboratories, December 1978.

Harrison, T. D., and W. H. McCulloch, Midtemperature Solar Systems Test Facility (MSSTF) System Test Results, Winter Season. SAND78-1894C, in Proceedings of 1979 Intl. Solar Energy Society Conference. Atlanta, GA, May 28-June 6, 1979.

Harrison, T. D., G. N. Bond, and A. C. Ratzel, Design Consideration for a Proposed Passive Vacuum Solar Annular Receiver. SAND78-0982, Albuquerque, Sandia National Laboratories, April 1979.

Harrison, T. D., and W. H. McCulloch, Midtemperature Solar Systems Test Facility Project Test Results: Phase IV A MSSTF System Operation. SAND78-1088, Albuquerque, Sandia National Laboratories, August 1978.

Harrison, T. D., C. E. Hickox, A. Ortega, and K. Wally, Test Results: High Temperature Thermocline Storage Subsystem. SAND77-1523, Albuquerque, Sandia National Laboratories, April 1978.

Harrison, T. D., C. E. Hickox, A. Ortega, K. Wally, Solar Total Energy Test Facility Project Test Results: High-Temperature Thermocline Storage Subsystem. SAND77-1528, Albuquerque, Sandia National Laboratories, April 1978.

Harrison, T. D., and S. Thunborg, Semiannaul Review ERDA Thermal Power Systems, Dispersed Power Systems, Distributed Collectors, and Research and Development Solar Total Energy/Single Collector Test Facility. SAND77-0112, Albuquerque, Sandia National Laboratories, 26-27 January 1977.

Harrison, T. D., W. R. Dworzak, and C. A. Folkner, Jr., Solar Collector Module Test Facility - Instrumentation Fluid Loop Number One. SAND76-0425, Albuquerque, Sandia National Laboratories, January 1977.

Haskins, D. E., Performance of a Solar-Heated Assembly Building at Sandia National laboratories. SAND80-0599, Albuquerque, Sandia National Laboratories, September 1980.

Hawn, D. C., and J. D. Fish, Overview of the CLEA Project and Initial Results on the CO2/CH4 Thermochemical Transport System, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Hawn, D. C., and J. D. Fish, CLEA: The Closed-Loop Efficiency Analysis Facility for Thermochemical Energy Transport Studies. SAND86-0590, Albuquerque, Sandia National Laboratories, May 1986.

Heckes, A. A., W. B. Stine, E. J. Ney, and J. M. Connolly, Performance and Operating Experience of the Solar Total Energy Project at Shenandoah, Georgia, in Proceedings of Intersol '85. Biennial Congress of the International Solar Energy Society, Montreal, Quebec, Canada, 23-29 June 1985.

Hellstrom, E. E., Thermal Expansion Properties of Na, K, Ca, and Pb Beta-alumina, and Na Beta-gallate, in Solid State Ionics. Vol. 15, 1985.

Hickox, C. E., R. J. Gross, and C. E. Hackett, Numerical Simulation of Dual-Media Thermal Energy Storage Systems. SAND78-2282, Albuquerque, Sandia National Laboratories, August 1979.

Hickox, C. E., T. D. Harrison, A. Ortega, and K. Wally, Test Results: High Temperature Thermocline Storage Subsystem. SAND77-1523, Albuquerque, Sandia National Laboratories, April 1978.

Hickox, C. E., T. D. Harrison, A. Ortega, K. Wally, Solar Total Energy Test Facility Project Test Results: High-Temperature Thermocline Storage Subsystem. SAND77-1528, Albuquerque, Sandia National Laboratories, April 1978.

Hickox, C. E., and D. K. Gartling, The Effects of Nonuniformities on Natural Convection in Annular Receiver Geometries. SAND77-1641, Albuquerque, Sandia National Laboratories, December 1977.

Hickox, C. E., A. C. Ratzel, and D. K. Gartling, Techniques for Reducing Thermal Conduction and Natural Convection Heat Losses in Annular Receiver Geometries. ASME Book No. H00104, Heat Transfer in Solar Energy Systems, ASME Winter Annual Meeting, Atlanta, GA, November 1977.

Hickox, C. E., W. P. Schimmel, and D. O. Lee, Tracking and Shadowing Models for Solar Collection Systems, in Proceedings of the ASME. Winter Annual Meeting, Atlanta, GA, November 1977.

Hickox, C. E., A. C. Ratzel, and D. K. Gartling, Energy Loss by Thermal Conduction and Natural Convection in Annular Solar Receivers. Fifteenth International Thermal Conductivity Conference, Ottawa, Ontario, Canada, August 1977.

Holl, R. J., Definition of Two Small Central Receivers. SAND78-7001, Albuquerque, Sandia National Laboratories, April 1978. Work performed by McDonnell-Douglas.

Hughes, R. L., and E. A. Igel, Optical Analysis of Solar Facility Heliostats. SAND77-0582, Albuquerque, Sandia National Laboratories, May 1977.

Hunke, R. W., FY 1984 Annual Operating Plan Solar Thermal Distributed Receiver Technology and Applications Project. SAND83-1600, Albuquerque, Sandia National Laboratories, January 1984.

Hunke, R. W., Multiyear Program Plan Solar Thermal Distributed Receiver Development Project. SAND83-2025, Albuquerque, Sandia National Laboratories, November 1983.

Hunke, R. W., Solar Total Energy Large-Scale Experiment, Shenandoah, Georgia, Preliminary Design and Evaluation. SAND79-0239, Albuquerque, Sandia National Laboratories, January 1979.

Hunke, R. W., Definitive Design of STE-LSE - Shenandoah, Georgia. SAND79-0565A, Albuquerque, Sandia National Laboratories, n.d.

Hunke, R., and G. Pappas, Solar Total Energy Project Construction Cost History. SAND82-2248, Albuquerque, Sandia National Laboratories, March 1983.

Hunke, R. W., and J. A. Leonard, The Shenandoah Solar Total Energy Project, (SAND80-2560C), in Proceedings Solar Rising ISES Conference. Philadelphia, PA, May 1980.

Hunke, R. W., A. J. Poche, and S. A. Haas, Preliminary Design of the Solar Total Energy-Large Scale Experiment at Shenandoah, Georgia, in Proceedings of the 1978 Intersociety Energy Conversion Engineering Conference (IECEC '78). Society of Automotive Engineers, 20-25 August 1978.

Hunke, R. W., and W. H. McCulloch, Solar Total-Energy Large-Scale Experiment at Shenandoah, Georgia. DFVLR International Symposium on Solar Thermal Power, Cologne, FRG, 12-13 April 1978.

Iannucci, J. J., K. W. Battleson, P. DeLaquil, III, J. D. Fish, and H. F. Norris, 1980 Solar Central Receiver Technology Evaluation. SAND80-8235, Albuquerque, Sandia National Laboratories, October 1980.

Igel, E. A., and R. L. Hughes, Optical Analysis of Solar Facility Heliostats. SAND77-0582, Albuquerque, Sandia National Laboratories, May 1977.

Institute of Gas Technology, Application of Solar Total Energy to the Residential Sector. Chicago, IL., n.d.

Kaestner, P. C., and R. L. Alvis, Solar Irrigation Program Data Base Management System (SIP DBMS). SAND78-0641, Albuquerque, Sandia National Laboratories, May 1978.

Kearney Management Consultants, Hemispherical Bowl Cost Estimating Study. SAND82-7111, Albuquerque, Sandia National Laboratories, March 1982.

King, J. W., and E. J. Ney, Status of the Solar Total Energy Project, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, Albuquerque, NM, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Kinoshita, G. S., The Shenandoah Parabolic Dish Solar Collector. SAND83-0583, Albuquerque, Sandia National Laboratories, January 1985.

Kinoshita, G. S., Operational Interface Control Drawing Procedure for STE-LSE, Shenandoah. SAND78-0329, Albuquerque, Sandia National Laboratories, March 1978.

Kinoshita, G. S., A. R. Mahoney, and R. B. Pettit, Accelerated Aging of Aluminized Acrylic Solar Mirror Materials. SAND84-0532, Albuquerque, Sandia National Laboratories, October 1984.

Kinoshita, G. S., and H. J. Gerwin, Solar Total Energy Project Semiannual Report, April - September 1977. SAND78-0109, Albuquerque, Sandia National Laboratories, April 1978.

Kirsch, P. A., Development and Fabrication of Solar Collector SMC Reflector Assemblies. SAND82-7109, Albuquerque, Sandia National Laboratories, December 1982. Work performed by The Budd Company, Ft. Washington, PA.

Kirsch, P. A., Development Effort on Sheet Molding Compound (SMC) Parabolic Trough Panels. SAND81-7037, Albuquerque, Sandia National Laboratories, July 1982. Work performed by The Budd Company Tech. Center, Ft. Washington, PA.

Klett, R. D., High Temperature TKD Thermal Insulation. SAND74-0412, Albuquerque, Sandia National Laboratories, March 1975.

Klimas, C. R., and J. A. Leonard, eds., A Bibliography of Reports of the Sandia Solar Thermal Distributed Receiver Systems Project. SAND84-0313, Albuquerque, Sandia National Laboratories, April 1984.

Koenig, A. A., A. R. Saydah, R. H. Lambert, and D. A. Kugath, Final Report on Test of STEP, Shenandoah Parabolic Dish Solar Collector Quadrant Facility. SAND82-7153, Albuquerque, Sandia National Laboratories, April 1983. Work performed by General Electric, Philadelphia.

Kohler, S. M., and J. F. Wilcoxen, Development of a Microprocessor-Based Sun-Tracking System for Solar Collectors. SAND79-2163, Albuquerque, Sandia National Laboratories, April 1980.

Kominiak, G. J., R. B. Pettit, D. M. Mattox, R. R. Sowell, Selective Solar Photothermal Absorbers. SAND75-0361, Albuquerque, Sandia National Laboratories, July 1975.

Koteras, J. R., Structural Analysis of a Glass/Space Frame Parabolic Trough Solar Collector for Various Operating Positions. SAND82-1040, Albuquerque, Sandia National Laboratories, March 1983.

Koteras, J. R., and B. A. Lewis, Analytical Experimental Studies of Some Parabolic Line Concentrator Design Concepts, in Proceedings of the Line-Focus Solar Thermal Energy Development, A Seminar for Industry. SAND80-1666, Albuquerque, Sandia National Laboratories, February 1981.

Kugath, D. A., A. A. Koenig, R. H. Lambert, and A. R. Saydah, Final Report on Test of STEP, Shenandoah Parabolic Dish Solar Collector Quadrant Facility. SAND82-7153, Albuquerque, Sandia National Laboratories, April 1983. Work performed by General Electric, Philadelphia.

Lambert, R. H., D. A. Kugath, A. A. Koenig, and A. R. Saydah, Final Report on Test of STEP, Shenandoah Parabolic Dish Solar Collector Quadrant Facility. SAND82-7153, Albuquerque, Sandia National Laboratories, April 1983. Work performed by General Electric, Philadelphia.

Larson, D. L., 1982 Annual Report of the Coolidge Solar Irrigation Project. SAND83-7124, Albuquerque, Sandia National Laboratories, October 1983. Work performed by the University of Arizona, Tucson.

Larson, D. L., Final Report of the Coolidge Solar Irrigation Project. SAND83-7125, Albuquerque, Sandia National Laboratories, October 1983. Work performed by the University of Arizona, Tucson.

Larson, D. L., Coolidge Solar Irrigation Project - FY 1982 Monthly Technical Reports. SAND82-7155, Albuquerque, Sandia National Laboratories, March 1983. Work performed by the University of Arizona, Tucson.

Larson, D. L., and L. E. Torkelson, 1981 Annual Report of the Coolidge Solar Irrigation Project. SAND82-0521, Albuquerque, Sandia National Laboratories, June 1982.

Larson, D. L., and L. E. Torkelson, 1980 Annual Report of the Coolidge Solar Irrigation Project. SAND80-2378, Albuquerque, Sandia National Laboratories, June 1981.

Larsen, L. M., ed., FY 78 Annual Progress Report: Midtemperature Component and Subsystem Development Project. SAND79-0800, Albuquerque, Sandia National Laboratories, September 1979.

Lee, D. O., An Economic Analysis Based on Land Costs of Collector Spacing in a Collector Field. SAND81-1165, Albuquerque, Sandia National Laboratories, October 1981.

Lee, D. O., W. D. Sundberg, and P. C. Montoya, Long Tube Heat Exchanger the Facility and Some Preliminary Tests on the Down Center/Up Annulus Flow Configuration. SAND78-0823, Albuquerque, Sandia National Laboratories, March 1980.

Lee, D. O., W. P. Schimmel, and C. E. Hickox, Tracking and Shadowing Models for Solar Collection Systems, in Proceedings of the ASME Winter Annual Meeting. Atlanta, GA, November 1977.

Lee, D. O., and W. P. Schimmel, Jr., Focused Solar Collector Analysis with Axially Varying Input Due to Shadowing from Adjacent Collectors, in Nuclear, Solar, and Process Heat Transfer. AICHE Symposium Series 164, Vol. 73, 1977.

Lee, D. O., and W. P. Schimmel, Jr., Synergistic Effects of Shadowing on a Solar Collector Matrix. SAND76-0012, Albuquerque, Sandia National Laboratories, April 1976.

Lee, D. O., and W. P. Schimmel, Jr., Sizing of North-South Oriented Focused Solar Collector Fields, Conference in Proceedings of the Institute of Environmental Science. 21st Annual Meeting, 13-16 April 1975.

Lee, D. O., W. P. Schimmel, and J. P. Abbin, Sizing of Focused Solar Collector Fields with Specified Collector Tube in Set Temperature. SAND74-0295, Albuquerque, Sandia National Laboratories, November 1974.

Lee, D. O., and W. P. Schimmel, An Axial Temperature Differential Analysis of Linear Focused Collectors for Solar Power, in Proceedings of 9th Intersociety Energy Conversion Engineering Conference. San Francisco, CA, 26-30 August 1974.

Lee, D. O., and W. H. McCulloch, Solar Community - Energy for Residential Heating, Cooling and Electric Power. SLA-74-0091, American Association for the Advancement of Science Annual Meeting, San Francisco, CA, February 25-March 1, 1974.

Lee, D. O., and W. H. McCulloch, A New Parameter for Evaluating Energy Systems. SLA-73-5320, Eighth Intersociety Energy Conversion Engineering Conference, University of Pennsylvania, Philadelphia, PA, 13-17 August 1973.

Lee, D. O., B. E. Bader, R. B. Pope, W. P. Schimmel, Jr., and W. H. McCulloch, A Combination of the Solar Energy and the Total Energy Concept-The Solar Community, (SLA-73-5318), in Proceedings of 8th Intersociety Energy Conversion Engineering Conference. By AIAA, ACS, AICHE, ASME, IEEE, SAE, University of Pennsylvania, Philadelphia, PA, 13-17 August 1973.

Leonard, J. A., Solar Parabolic Dish Systems--Technology and Applications, SAND84-0632C, in Proceedings of the 19th IECEC. San Francisco, CA, August 1984.

Leonard, J. A., Future Dish Project Activities, in Proceedings of the Fifth Annual Parabolic Dish Conference. Indian Wells, CA, 5-8 December 1983.

Leonard, J. A., Line-Concentrating Solar Collectors, in Proceedings of the Parabolic Dish Technology Conference. SAND79-1231C, Long Beach, CA, 20-21 June 1979.

Leonard, J. A., Safety and Environmental Implications, DOE/Sandia Midtemperature Solar Systems Test Facility, SAND78-2292C, in Proceedings DOE Environmental Controls Symposium. Washington, DC, 28-30 November 1978.

Leonard, J. A., Concentrating Solar Collector Applications - Experiences and Insights, in Proceedings Solar Federal Buildings Seminar. Atlanta, GA, 12-13 October 1978.

Leonard, J. A., Operating Experience at the DOE/Sandia Midtemperature Solar Systems Test Facility, in Proceedings Thirteenth Intersociety Energy Conversion Engineering Conference. SAND78-0820C, San Diego, CA, 22-25 August 1978.

Leonard, J. A., Linear Concentrating Solar Collectors - Current Technology and Applications, SAND78-0949, in Proceedings Solar Thermal Concentrating Collector Technology Symposium. Denver, CO, 14-15 June 1978.

Leonard, J. A., Dispersed Power Systems - Projects and Requirements, in Proceedings Selective Absorber Coatings Workshops. Golden, CO, 6-8 December 1977.

Leonard, J. A., Hardware Experience with Solar Thermal Concentrators, in Proceedings ERDA Photovoltaic Concentrator Workshop. Scottsdale, AZ, 24-25 May 1977.

Leonard, J. A., Solar Total Energy at Sandia National Laboratories, SAND76-5176, in Proceedings 13th Space Congress. Cocoa Beach, FL, 7-10 April 1976.

Leonard, J. A., Sandia's Solar Total Energy Program, in Proceedings Society for Advancement of Materials and Process Engineering Conference. Albuquerque, NM. SAND75-5880, October 1975.

Leonard, J. A., R. B. Diver, and T. R. Mancini, in Proceedings of the Concentrating Solar Collector Workshop, Key Technical Issues. SAND87-0131, Albuquerque, Sandia National Laboratories, June 1987.

Leonard, J. A., and C. R. Klimas, eds., A Bibliography of Reports of the Sandia Solar Thermal Distributed Receiver Systems Project. SAND84-0313, Albuquerque, Sandia National Laboratories, September 1985.

Leonard, J. A., and J. V. Otts, Progress in Solar Thermal Distributed Receiver Technology, in Proceedings of the 12th Energy Technology Conference. Washington, DC, March 1985.

Leonard, J. A., and C. R. Klimas, eds., A Bibliography of Reports of the Sandia Solar Thermal Distributed Receiver Systems Project. SAND84-0313, Albuquerque, Sandia National Laboratories, April 1984.

Leonard, J. A., and V. L. Dugan, Line-Focus Concentrating Solar Collectors. SAND80-2394C, Albuquerque, Sandia National Laboratories, October 1980. (Conference paper.)

Leonard, J. A., and R. W. Hunke, The Shenandoah Solar Total Energy Project, (SAND80-2560C), in Proceedings Solar Rising ISES Conference. Philadelphia, PA, May 1980.

Leonard, J. A., and S. Thunborg, System Study in Feasibility of a Coal-Fired Total-Energy Plant, with Solar Options, for Sandia National Laboratories. SAND78-0979, Albuquerque, Sandia National Laboratories, January 1979.

Leonard, J. A., and S. Thunborg, Solar Total Energy Program Quarterly Report, April-June 1974. SAND74-0208, Albuquerque, Sandia National Laboratories, September 1974.

Leuenberger, W. R., and Abbin, J. P., Jr., Program Cycle - A Rankine Cycle Analysis Routine. SAND74-0099, Albuquerque, Sandia National Laboratories, October 1974, Revised and Reprinted October 1977.

Lewis, B. A., Experimental and Analytical Results for the Structural Behavior of the Sheet Metal Parabolic Solar Collector. SAND82-0045A, Albuquerque, Sandia National Laboratories, March 1982.

Lewis, B. A., and J. R. Koteras, Analytical Experimental Studies of Some Parabolic Line Concentrator Design Concepts, in Proceedings of the Line-Focus Solar Thermal Energy Development, A Seminar for Industry. SAND80-1666, Albuquerque, Sandia National Laboratories, February 1981.

Linker, K. L., Analysis of Steam-Injected Gas Turbines for Solar Thermal Applications, SAND88-1249, Albuquerque, Sandia National Laboratories, July 1988.

Linker, K. L., Heat Engine Development for Solar Thermal Dish-Electric Power Plants. SAND86-0289, Albuquerque, Sandia National Laboratories, November 1986.

Linn, J. K., Analysis of Collectors for Process Heat Application. SAND78-1977, Albuquerque, Sandia National Laboratories, February 1979.

Linn, L. L., Experimental Parabolic Trough Collector Performance Characterization. SAND81-0313, Albuquerque, Sandia National Laboratories, May 1981.

Lodde, P. F., and H. E. Auld, Study of Low-Cost Foundation/Anchor Designs for Single-Axis-Tracking Solar Collector Systems. SAND78-7048, Albuquerque, Sandia National Laboratories, January 1979.

Lodde, P. F., and H. E. Auld, Study of Foundation Designs for Single-Axis-Tracking Solar Collector Systems under Reduced Loading Conditions. SAND79-7016, Albuquerque, Sandia National Laboratories, May 1979.

Los Alamos Scientific Laboratory, Passive Solar Buildings. SAND79-0824, Albuquerque, Sandia National Laboratories, July 1979.

Lukens, L. L., Dish Electric Systems Heat Engine Assessment. SAND85-0522, Albuquerque, Sandia National Laboratories, June 1985.

Lukens, L. L., and R. R. Peters, Graphical Representation of TMY Solar Radiation Availability for One- and Two-Axis Solar Collectors. SAND79-0418, Albuquerque, Sandia National Laboratories, May 1979. Reprint February 1981.

Lukens, L. L., and R. L. Alvis, Solar Irrigation Program Plan, Second Revision. SAND78-0308, Albuquerque, Sandia National Laboratories, May 1978.

Lukens, L. L., A. M. Perino, and S. G. Vandevender, Solar Irrigation Program Data Base Management System (SIPDBMS). SAND78-0641, Albuquerque, Sandia National Laboratories, May 1978.

Lukens, L. L., A. M. Perino, and S. G. Vandevender, Preliminary Economic Analysis of Solar Irrigation Systems for Selected Systems. SAND77-1403, Albuquerque, Sandia National Laboratories, November 1977.

Lundergan, C. D., D. S. Drumheller, and S. Thunborg, Proposal to NSF for Support of Systems Analysis Computer Program Proposed for Solar Community Total Energy Concept. SLA-73-1056, Albuquerque, Sandia National Laboratories, December 1973.

Lundgren, R. G., and J. V. Otts, Central Receiver Test Facility (CRTF) Cost History. SAND80-2477, Albuquerque, Sandia National Laboratories, May 1981.

Mahoney, A. R., R. B. Pettit, and G. S. Kinoshita, Accelerated Aging of Aluminized Acrylic Solar Mirror Materials. SAND84-0532, Albuquerque, Sandia National Laboratories, October 1984.

Mahoney, A. R., Solar Hemispherical Reflectometer Modification for Second Surface Mirror Measurements. SAND82-0934, Albuquerque, Sandia National Laboratories, May 1982.

Mancini, T. R., Innovative Point-Focus Concentrator Projects ASES Conference, Boulder, CO, June 1986.

Mancini, T. R., The DOE Innovative Concentrator Project, in Proceedings of the 8th ASME Solar Energy Conference, Anaheim, CA, April 13-16, 1986.

Mancini, T. R., The DOE/Sandia Point-Focus Concentrator Program, Annual SERI Solar Thermal Research Conference, Lakewood, CO, February 1985.

Mancini, T. R., J. A. Leonard, R. B. Diver, Proceedings of the Concentrating Solar Collector Workshop: Key Technical Issues. SAND87-0131, Albuquerque, Sandia National Laboratories, June 1987.

Mancini, T. R., A. C. Ratzel, B. D. Boughton, R. B. Diver, CIRCE: A Computer Code for the Analysis of Point-Focus Solar Concentrators. 9th Annual ASME Solar Energy Conference, Honolulu, April 1987.

Marshall, B. W., Analysis of a Solar Total Energy System. 1975 International Solar Energy Society, Los Angeles, CA, July 28-August 1, 1975.

Marshall, B. W., Analysis of a 1000-Home Solar Total Energy Community Using Clear Air Solar Intensity. SAND75-0097, Albuquerque, Sandia National Laboratories, May 1975.

Martinez, J. I., A Liquid Metal Thermoelectric Converter (LMTEC) for Solar Applications. Annual SERI Solar Thermal Research Conference, Lakewood, CO, February 1985.

Mattox, D. M., Some Chemical Aspects of Solar Energy Utilization, in Journal of Solid State Chemistry. Vol. 22, 1977.

Mattox, D. M., Thin Films in Solar Energy Utilization - A Perspective, in Proceedings of the ERDA-DPR Symposium on the Thin Film Research for Solar Energy. Asilomar, CA, 1-3 November 1976.

Mattox, D. M., The Economic and Technical Aspects of Coatings for Solar Energy, American Vacuum Society, Tampa, FL, 2-5 February 1976.

Mattox, D. M., Applications of Thin Films to Solar Energy Utilization, in Journal of Vacuum Science Technology. Vol. 13, 1976.

Mattox, D. M., Optical Materials for Solar Energy Applications, in Optics News. Vol. 2, 1976.

Mattox, D. M., Economic and Technical Aspects of Solar Coatings - Abstract, in Journal of the Optical Society of America. Vol. 66, No. 2, 1976.

Mattox, D. M., Coatings and Surface Treatments in Solar Energy Applications, in Plating. Vol. 67, 1976.

Mattox, D. M., Solar Energy Materials Preparation Techniques, in Journal of Vacuum Science Technology. Vol. 12, No. 5, September 10, 1975.

Mattox, D. M., Coatings for Solar Energy Applications, in Proceedings of the 18th Annual Conference of the Society of Vacuum Coaters. Key Biscayne, FL, 7-9 April 1975.

Mattox, D. M., High Volume Thin Film Depositing Capabilities in the USA, in Proceedings of the International Workshop on Cadmium Sulfide Solar Cells and Other Abrupt Heterojunctions. University of Delaware, 1975.

Mattox, D. M., and R. R. Sowell, Properties and Composition of Electroplated Black Chrome, in Proceedings of the American Electroplating Society Coatings for Solar Collector Symposium. Atlanta, GA, 9-10 November 1976; also in Plating and Surface Finishing, 65, January 1978.

Mattox, D. M., G. J. Kominiak, R. R. Sowell, and R. B. Pettit, Selective Solar Photothermal Absorbers. SAND75-0361, Albuquerque, Sandia National Laboratories, July 1975.

Mattox, D. M., and R. R. Sowell, High Absorptivity Solar Absorbing Coatings, in Proceedings of the Conference on Structure-Property Relationships in Thick Film and Bulk Coatings. San Francisco, CA, 28-30 January 1974; also in American Vacuum Society, Journal Vacuum Science Technology, 11, 1974.

McAlister, K. D., and S. Thunborg, Solar Total Energy System Test Facility Operational Phase Test Plan. SAND77-0690, Albuquerque, Sandia National Laboratories, May 1977.

McBride, D. D., D. E. Randall, and R. E. Tate, Mean Wind Loading on Parabolic Trough Solar Collectors, in Journal of Solar Energy Engineering. Vol. 103, November 1981.

McCrary, J. H., and Gloria E. McCrary, Experimental Studies of a Closed-Loop Sulfur Oxide Energy Conversion and Transport System. SAND86-7040, Albuquerque, Sandia National Laboratories, March 1987.

McCrary, J. H., G. E. McCrary, PSL/NMSU, and J. I. Martinez, An Experimental Investigation of Thermochemical Transport for Solar Applications Using Sulfur Trioxide. SAND86-7028, Albuquerque, Sandia National Laboratories, May 1986.

McCrary, G. E., and J. H. McCrary, A Closed-Loop Sulfur Oxide Energy Conversion and Transport System, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, Albuquerque, NM, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

McCulloch, W. H., On the Maximum Field Size for Dispersed Solar Thermal Power Systems. SAND79-1425, Albuquerque, Sandia National Laboratories, August 1979.

McCulloch, W. H., Midtemperature Solar Systems Test Facility Systems Test Results Winter Season, in Proceedings of the 1979 International Congress, International Solar Energy Society. Atlanta, GA, June 1979.

McCulloch, W. H., Heat Transfer Fluid Experiences at the MSSTF. SAND79-1802, Albuquerque, Sandia National Laboratories, February 1979.

McCulloch, W. H., and T. D. Harrison, Midtemperature Solar Systems Test Facility (MSSTF) System Test Results, Winter Season, SAND78-1894C, in Proceedings of 1979 Intl. Solar Energy Society Conference. Atlanta, GA, May 28-June 6, 1979.

McCulloch, W. H., and J. C. Zimmerman, Small Solar Thermal Power Systems Projects Semiannual Report, October 1977 - March 1978. SAND78-0951, Albuquerque, Sandia National Laboratories, February 1979.

McCulloch, W. H., and R. W. Hunke, Solar Total-Energy Large-Scale Experiment at Shenandoah, Georgia, DFVLR International Symposium on Solar Thermal Power, Cologne, FRG, 12-13 April 1978.

McCulloch, W. H., and T. D. Harrison, Midtemperature Solar Systems Test Facility Project Test Results: Phase IV A MSSTF System Operation. SAND78-1088, Albuquerque, Sandia National Laboratories, August 1978.

McCulloch, W. H., R. S. Rusk, and G. W. Treadwell, Test Results from a Parabolic-Cylindrical Solar Collector, SAND75-5333, in Proceedings of the Solar Energy Society Annual Meeting. Los Angeles, CA, July 18-August 1, 1975.

McCulloch, W. H., D. O. Lee, W. P. Schimmel, The Solar Community--Energy for Residential Heating, Cooling, and Electric Power. SLA-74-0091, American Association for the Advancement of Science Annual Meeting, San Francisco, CA, February 25-March 1, 1974.

McCulloch, W. H., and G. W. Treadwell, Design Analysis of Asymmetric Solar Receivers, SAND74-0124, in Proceedings of the International Solar Energy Society. U.S. Sectional Annual Meeting, Ft. Collins, CO, 20-23 August 1974.

McCulloch, W. H., W. P. Schimmel, D. O. Lee, B. E. Bader, and R. B. Pope, A Combination of the Solar Energy and the Total Energy Concept-The Solar Community, SLA-73-5318, in Proceedings of 8th Intersociety Energy Conversion Engineering Conference. By AIAA, ACS, AICHE, ASME, IEEE, SAE, University of Pennsylvania, Philadelphia, PA, 13-17 August 1973.

McCulloch, W. H., and D. O. Lee, A New Parameter for Evaluating Energy Systems. SLA-73-5320, Eighth Intersociety Energy Conversion Engineering Conference, University of Pennsylvania, Philadelphia, PA, 13-17 August 1973.

McDonnell-Douglas, Novel Solar Collector Using a Large Circular Fresnel Lens Concentrator--Final Report. SAND78-7023, Albuquerque, Sandia National Laboratories, May 1978.

McFarland, B. L., Manual for the Solar Total Energy System Evaluation Program. SAND78-7045, Albuquerque, Sandia National Laboratories, February 1979. Work performed by Atomics International Division.

McVeety, R. T., and R. L. Alvis, Commercialization of Solar Irrigation Systems Workshop. SAND78-0189, Albuquerque, Sandia National Laboratories, May 1978.

Mechanical Technology, Inc., Central Heat Engine Cost and Availability Study. SAND87-7020, Albuquerque, Sandia National Laboratories, November 1987.

Merkle, D. H., Full Scale Load Test of Experimental Solar Collector Foundations. SAND80-7076, Albuquerque, Sandia National Laboratories, June 1981.

Meyer, R. D., Energy Transmission System Heat Losses. SAND82-1138, Albuquerque, Sandia National Laboratories, October 1982.

Mitchiner, J. L., The Impact of System Energetics on the Transition to Inexhaustible Energy Resources for Electric Power Generation. SAND78-1639, Albuquerque, Sandia National Laboratories, May 1977.

Miyazono, C. K., Overview of Software Development at the Parabolic Dish Test Site. DOE/JPL 1060-90, Jet Propulsion Laboratory, Pasadena, CA, July 1985.

Moeller, C. E., L. O. Seamons, and E. Rush, 1 MW Calorimetric Receiver for Solar Thermal Test Facility, ASME78-WA/SOL-7, in Proceedings of the 1978 Winter Meeting, ASME.

Montoya, P. C., D. O. Lee, and W. D. Sundberg, Long Tube Heat Exchanger the Facility and Some Preliminary Tests on the Down Center/Up Annulus Flow Configuration. SAND78-0823, Albuquerque, Sandia National Laboratories, March 1980.

Moore, D. M., and E. J. Ney, Shenandoah Solar Total Energy Project Performance Analysis of High Temperature Energy Storage Subsystem. July 1984. Work performed by Georgia Power Company.

Morris, V. L., Final Report, Solar Collector Materials Exposure to the IPH Site Environment Task 5.0. SAND81-7029, Albuquerque, Sandia National Laboratories, April 1982. Work performed by McDonnell Dougas Astronautics, Co., Huntington Beach, CA.

Morris, V. L., Final Report, Solar Collector Materials. SAND81-7028/I & II, Albuquerque, Sandia National Laboratories, January 1982. Work performed by McDonnell Douglas Astronautics Co., Huntington Beach CA.

Morris, V. L., and D. E. Randall, Initial Experience and Preliminary Results Solar Collector Materials Exposure to the IPH Site Environment. SAND81-0290, Albuquerque, Sandia National Laboratories, March 1981.

Muir, J. F., A Comparison of the Performance/Economics of Thermochemical and Sensible Energy Transport for Distributed Receiver Solar Thermal Systems. SAND88-1210, Albuquerque, Sandia National Laboratories, September 1988.

Muir, J. F., Performance/Economics Comparison of Sensible and Thermochemical Energy Transport Systems for Solar Thermal Dish Applications, in Proceedings of the 21st IECEC. San Diego, CA, August 1986. Also in Journal of Solar Energy Engineering, Vol. 109, August 1987.

Muir, J. F., Thermochemical Transport Update, in Proceedings of the Solar Thermal Technology Conference, Albuquerque, NM, June 17-19, 1986. SAND86-0536, Albuquerque, Sandia National Laboratories, June 1986.

Muir, J. F., Thermochemical vs. Sensible Transport Systems Economic Analysis, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Muir, J. F., ed., Proceedings of the Distributed Receiver Solar Thermal Technology Conference. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Nesmith, B., Bearing Development Program for a 25-kWe Solar-Powered Organic Rankine-Cycle Engine. DOE/JPL 1060-92, Jet Propulsion Laboratory, Pasadena, CA, September 1985.

Ney, E. J., Annual Technical Progress Report for the Period July 1, 1983, through June 30, 1984, Solar Total Energy Project, Shenandoah, Georgia., ALO/3994-84/1, October 1984. Work performed by Georgia Power Company.

Ney, E. J., and J. W. King, Status of the Solar Total Energy Project, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, Albuquerque, NM, 24-25 April 1985. SAND84-2454, Albuquerque, Sandia National Laboratories, April 1985.

Ney, E. J., and D. M. Moore, Shenandoah Solar Total Energy Project Performance Analysis of High Temperature Energy Storage Subsystem, July 1984. Work performed by Georgia Power Company.

Norris, H. F., K. W. Battleson, P. DeLaquil, III, J. D. Fish, and J. J. Iannucci, 1980 Solar Central Receiver Technology Evaluation. SAND80-8235, Albuquerque, Sandia National Laboratories, October 1980.

Ortega, A., T. D. Harrison, C. E. Hickox, and K. Wally, Test Results: High Temperature Thermocline Storage Subsystem. SAND77-1523, Albuquerque, Sandia National Laboratories, April 1978.

Otts, J. V., The Sandia National Laboratories Solar Total Energy Project. SAND79-1154, Albuquerque, Sandia National Laboratories, n.d.

Otts, J. V., Midtemperature Solar System Test Facility Program Status Report. SAND80-1681, Albuquerque, Sandia National Laboratories, August 1980.

Otts, J. V., and J. A. Leonard, Progress in Solar Thermal Distributed Receiver Technology, 12th Energy Technology Conference, Washington, DC, March 1985.

Otts, J. V., and D. Sallis, The Custom Engineering Parabolic Glass Reflector For the Sandia Prototype Solar Collector. SAND81-1619, Albuquerque, Sandia National Laboratories, August 1981.

Otts, J. V., and R. G. Lundgren, Central Receiver Test Facility (CRTF) Cost History. SAND80-2477, Albuquerque, Sandia National Laboratories, May 1981.

Pappas, G., and R. Hunke, Solar Total Energy Project Construction Cost History. SAND82-2248, Albuquerque, Sandia National Laboratories, March 1983.

Parks, V. J., and R. J. Sanford, Stress Analysis of Spherical Mirror Panels. SAND82-7116, Albuquerque, Sandia National Laboratories, April 1982.

Perino, A. M., L. L. Lukens, and S. G. Vandevender, Solar Irrigation Program Data Base Management System (SIPDBMS). SAND78-0641, Albuquerque, Sandia National Laboratories, May 1978.

Perino, A. M., L. L. Lukens, A. L. Alvis, and S. G. Vandevender, Preliminary Economic Analysis of Solar Irrigation Systems (SIS) for Selected Systems. SAND77-1403, Albuquerque, Sandia National Laboratories, November 1977.

Patterson, B., Solar Total Energy Test Facility Project Semiannual Report, 10/76-3/77. SAND77-0738, Albuquerque, Sandia National Laboratories, August 1977.

Perino, A. M., A Methodology for Determining the Economic Feasibility of Residential or Commercial Solar Energy Systems. SAND78-0931, Albuquerque, Sandia National Laboratories, January 1979.

Peters, R. R., Solar Energy System Design - A Simple Method for Sizing the Collector Field and Thermal Storage. SAND81-1541, Albuquerque, Sandia National Laboratories, June 1981.

Peters, R. R., Assessment of the Relative Benefits of Solar Energy Systems for Application to a Mixed-Load Community. SAND79-0436, Albuquerque, Sandia National Laboratories, June 1979.

Peters, R. R., A Methodology for Determining the Configuration of the Optimum Solar Total Energy System. SAND79-0422, Albuquerque, Sandia National Laboratories, May 1979.

Peters, R. R., and L. L. Lukens, Graphical Representation of TMY Solar Radiation Availability for One- and Two-Axis Solar Collectors. SAND79-0418, Albuquerque, Sandia National Laboratories, May 1979, Reprinted February 1981.

Pettit, R. B., Characterizing Solar Mirror Materials Using Portable Reflectometers. SAND82-1714, Albuquerque, Sandia National Laboratories, September 1982.

Pettit, R. B., Hemispherical Transmittance Properties of Solar Glazings as a Function of Averaging Procedure and Incident Angle, in Solar Energy Materials. Vol. 1, 1979, p. 125.

Pettit, R. B., Solar Averaged Transmittance Properties of Various Glazings, in Proceedings 1978 Annual Meeting of the American Section of the International Solar Energy Society. Denver, CO, Vol. 2, 28-31 August 1978, pp. 294-299.

Pettit, R. B., Effect of Surface Curvature on Measurement of Absorptance Properties of Solar Coatings, in Solar Energy. 1978, p. 247.

Pettit, R. B., Characterization of the Reflected Beam Profile of Solar Mirror Materials, in Solar Energy. Vol. 19, 1977, p. 733.

Pettit, R. B., Optical Measurement Techniques Applied to Solar Selective Coatings. SAND77-0421, Albuquerque, Sandia National Laboratories, August 1977.

Pettit, R. B., Evaluation of Portable, Optical Property Measurement Equipment for Solar Selective Surfaces, in Proceedings ASME Annual Winter Meeting. Atlanta, GA, November 27-December 2, 1977.

Pettit, R. B., Specular Reflectance Properties of Mirror Materials, in Proceedings of the International Solar Energy Society Meeting. Winnepeg, Canada, 15-20 August 1976.

Pettit, R. B., Total Hemispherical Emittance Measurement Apparatus for Solar Selective Coatings. SAND75-0079, Albuquerque, Sandia National Laboratories, June 1975.

Pettit, R. B., and C. J. Brinker, Use of Sol-Gel Thin Films in Solar Energy Applications, in Proceedings of the SPIE Optical Materials Technology for Energy Efficiency and Solar Energy Conversion. No. IV, 1985.

Pettit, R. B., A. R. Mahoney, and G. S. Kinoshita, Accelerated Aging of Aluminized Acrylic Solar Mirror Materials. SAND84-0532, Albuquerque, Sandia National Laboratories, October 1984.

Pettit, R. B., and E. P. Roth, The Effect of Soiling on Solar Mirrors and Techniques Used to Maintain High Reflectivity. SAND79-2422, Albuquerque, Sandia National Laboratories, June 1980.

Pettit, R. B., and E. P. Roth, Solar Mirror Materials: Their Properties and Uses in Solar Concentrating Collectors. SAND79-2190, Albuquerque, Sandia National Laboratories, June 1980.

Pettit, R. B., J. M. Freese, and D. E. Arvizu, Specular Reflectance Loss of Solar Mirrors Due to Dirt Accumulation, in Proceedings Seminar on Testing Solar Materials and Systems. National Bureau of Standards, Washington, DC, 22-24 May 1978.

Pettit, R. B., and R. R. Sowell, Thermal Aging of Electrodeposited Black Chrome, SAND78-0554, in Proceedings of Thermal Power Systems Workshop on Selective Absorber Coatings. Solar Energy Research Institute, Golden, CO, 6-8 December 1977.

Pettit, R. B., and B. L. Butler, Mirror Materials and Selective Coatings, in Proceedings of the Semiannual Review, ERDA Thermal Power Systems, Dispersed Power Systems, Distributed Collectors and Research and Development. SAND77-0111, Albuquerque, Sandia National Laboratories, 26-27 January 1977.

Pettit, R. B., and B. L. Butler, Optical Evaluation Techniques for Reflecting Solar Concentrators, in Proceedings of the Society Photo-Optical Instrumentation Engineers 21st Annual Technical Symposium. Vol. 114, San Diego, CA, 22-26 August 1977.

Pettit, R. B., and B. L. Butler, Laser Ray Trace and Bi-Directional Reflectometry Measurements of Various Solar Concentrators, in Proceedings ERDA Concentrating Solar Collector Conference/Exhibit/Workshop. Atlanta, GA, 26-28 September 1977.

Pettit, R. B., and B. L. Butler, Materials Development for Solar Total Energy, Highlights Report, Solar Thermal Conversion Program, Dispersed Power Projects, Berkeley, CA, 20-22 July 1976.

Pettit, R. B., and R. R. Sowell, Solar Absorptance and Emittance Properties of Several Solar Coatings, in Journal of Vacuum Science and Technology. Vol. 13, 1976, p. 596.

Pettit, R. B., D. M. Mattox, G. J. Kominiak, and R. R. Sowell, Selective Solar Photothermal Absorbers in SAND75-0361, Highlights of the Solar Thermal Conversion Workshop of Surface Coatings Program. Albuquerque, Sandia National Laboratories, July 1975.

Pitman, C. L., and L. L. Vant-Hull, Atmospheric Transmittance Model for a Solar Beam Propagating Between a Heliostat and a Receiver. SAND83-8177, Albuquerque, Sandia National Laboratories, February 1984. Work performed by the University of Houston.

Poche, A. J., S. A. Haas, and R. W. Hunke, Preliminary Design of the Solar Total Energy-Large Scale Experiment at Shenandoah, Georgia, in Proceedings of the 1978 Intersociety Energy Conversion Engineering Conference (IECEC '78). Society of Automotive Engineers, August 20-25, 1978.

Pope, R. B., W. P. Schimmel, Jr., C. O. Lee, W. H. McCulloch, and B. E. Bader, A Combination of the Solar Energy and the Total Energy Concept-The Solar Community, (SLA-73-5318), in Proceedings of 8th Intersociety Energy Conversion Engineering Conference. By AIAA, ACS, AICHE, ASME, IEEE, SAE, University of Pennsylvania, Philadelphia, PA, 13-17 August 1973.

Pope, R. B., and W. P. Schimmel, Jr., An Analysis of Linear Focused Collectors for Solar Power, in Proceedings of the 8th Intersociety Energy Conversion Engineering Conference. (SLA-73-5391A), Philadelphia, PA, 13-17 August 1973.

Pope, R. B., and W. P. Schimmel, Jr., Solar Community and the Cascaded Energy Concept Applied to a Single House and a Small Subdivision - A Status Report. LA-73-0357, Albuquerque, Sandia National Laboratories, April 1973.

Powers, D., R. Tate, and D. E. Randall, Experimental Results of Pitching Moment Tests on Parabolic-Trough Solar-Collector Array Configurations. SAND82-1569, Albuquerque, Sandia National Laboratories, June 1983.

Prairie, R., R. L. Alvis, E. C. Boes, I. J. Hall, and R. Stromberg, Average Solar Radiation Available to Various Collector Types, in Proceedings of the Concentrating Solar Collector Conference at Georgia Tech. September 1977.

Quintana, M. A., and L. E. Torkelson, Pump Heat Loss Test Report. SAND80-2526, Albuquerque, Sandia National Laboratories, January 1981.

Radosevich, L. G., Data Evaluation Plan for the 10 MWe Solar Thermal Central Receiver Pilot Plant Power Production Phase. SAND84-8237, Albuquerque, Sandia National Laboratories, October 1984.

Radosevich, L. G., Industry/Government Forum on Recent Policy and Budget Changes in the DOE Solar Thermal Program. SAND82-8207, Albuquerque, Sandia National Laboratories, January 1981.

Radosevich, L. G., and R. S. Caputo, An Assessment of Solar Thermal Concentrator Research and Development. SAND84-8228, Albuquerque, Sandia National Laboratories, June 1984.

Rainhart, L. G., and F. L. Baker, A Simplified Linear Parabolic Concentrator for Solar Energy. SAND80-1793, Albuquerque, Sandia National Laboratories, October 1980.

Rambach, Gilad, Evaluation of Solar Rankine-Cycle Engine Systems. SAND78-0986, Albuquerque, Sandia National Laboratories, November 1978.

Randall, D. E., Conceptual Design Study for the Application of a Solar Total Energy System at the North Lake Campus - Dallas County Community College District. SAND76-0512, Albuquerque, Sandia National Laboratories, October 1976.

Randall, D. E., Mean Wind Forces on Parabolic-Trough Solar Collectors. SAND80-0094, Albuquerque, Sandia National Laboratories, April 1982.

Randall, D. E., Summary Report: Multiple-Tank High-Temperature Storage Subsystem. SAND79-2056, Albuquerque, Sandia National Laboratories, February 1980.

Randall, D. E., Summary Report: Multiple-Tank High-Temperature Storage Subsystem. SAND79-2056, Albuquerque, Sandia National Laboratories, February 1980.

Randall, D. E., R. Tate, and D. Powers, Experimental Results of Pitching Moment Tests on Parabolic-Trough Solar-Collector Array Configurations. SAND82-1569, Albuquerque, Sandia National Laboratories, June 1983.

Randall, D. E., and N. R. Grandjean, Correlations of Insolation and Wind Data for SOLMET Stations. SAND82-0094, Albuquerque, Sandia National Laboratories, April 1982.

Randall, D. E., and V. L. Morris, Initial Experience and Preliminary Results Solar Collector Materials Exposure to the IPH Site Environment. SAND81-0290, Albuquerque, Sandia National Laboratories, March 1981.

Randall, D. E., D. D. McBride, and R. E. Tate, Mean Wind Loading on Parabolic Trough Solar Collectors, in Journal of Solar Energy Engineering. Vol. 103, November 1981, p. 103.

Randall, C., E. C. Boes, and M. Whitson, Hourly Direct-Normal Solar Radiation Data Tapes for the United States, in Proceedings of the International Solar Energy Society. American Section Meeting, June 1977.

Ratzel, A. C., Degradation of Parabolic Cylindrical Solar Collector Performance, Receiver Misalignments and Tracking Inaccuracies, Solar Engineering, in Proceedings of the ASME Solar Energy Conference. Anaheim, CA, April 1986.

Ratzel, A. C., Evaluation of the Evacuated Solar Annular Receivers Used at the Midtemperature Solar Systems Test Facility (MSSTF). SAND78-0983, Albuquerque, Sandia National Laboratories, July 1979.

Ratzel, A. C., Thermal Parametric Studies for the Second Generation Sandia Ninety-Degree Parabolic Collector, Internal Memorandum, Sandia National Laboratories, Albuquerque, June 1978.

Ratzel, A. C., and C. E. Sisson, Annual Solar Receiver Thermal Characteristics. SAND79-1010, Albuquerque, Sandia National Laboratories, October 1980.

Ratzel, A. C., and C. E. Simpson, Heat Loss Reduction Techniques for Annular Solar Receiver Designs. SAND78-1769, Albuquerque, Sandia National Laboratories, February 1979.

Ratzel, A. C., G. N. Bond, and T. D. Harrison, Design Considerations for a Proposed Passive Vacuum Solar Annular Receiver. SAND78-0982, Albuquerque, Sandia National Laboratories, November 1978.

Ratzel, A. C., and C. E. Sisson, Thermal Analysis of Receiver Assembly on SLATS Line Focus Solar Collector for an Inoperative Fluid Flow Condition, Internal Memorandum, Albuquerque, March 1978.

Ratzel, A. C., D. K. Gartling, and C. E. Hickox, Techniques for Reducing Thermal Conduction and Natural Convection Heat Losses in Annular Receiver Geometries. ASME Book No. H00104, Heat Transfer in Solar Energy Systems, ASME Winter Annual Meeting, Atlanta, GA, November 1977.

Ratzel, A. C., and B.D. Boughton, CIRCE.001: A Computer Code for Analysis of Point-Focus Concentrators with Flat Targets. SAND86-1866, Albuquerque, Sandia National Laboratories.

Reed, S. T., and C. S. Ashley, Sol-Gel-Derived AR Coatings for Solar Receivers. SAND84-0662, Albuquerque, Sandia National Laboratories, September 1984.

Reuter, R. R., The Effects of Gaps in Adhesives that Bond Elastically Deformed Panels to Parabolic, Cylindrical Substructures. SAND82-0291, Albuquerque, Sandia National Laboratories, March 1982.

Reuter, R. R., Deformation of a Thin, Elastic Plate to a Deep Parabolic Cylinder. SAND82-0099, Albuquerque, Sandia National Laboratories, February 1982.

Reuter, R. R., and R. K. Wilson, Contact Stresses on a Thin Plate After Large Displacements to a Full Parabolic Surface. SAND81-2083, Albuquerque, Sandia National Laboratories, December 1981.

Richardson, J. T. and D. Keehan, Carbon Monoxide Rich Methanation Kinetics on Supported Rhodium and Nickel Catalysts, SAND 88-7149, Albuquerque, Sandia National Laboratories, in press.

Robertson, C. E., and J. N. Banker, A Photographic Technique to Determine the Apparent Energy Distribution of the Solar Aureole. SLA-74-0090, Albuquerque, Sandia National Laboratories, March 1974.

Rosborough, R. S., and R. L. Alvis, Microprocessor Based Power Cable Carrier Control, (MPC3). SAND82-0001, Albuquerque, Sandia National Laboratories, March 1982.

Roth, E. P., and R. B. Pettit, Solar Mirror Materials: Their Properties and Uses in Solar Concentrating Collectors. SAND79-2190, Albuquerque, Sandia National Laboratories, June 1980.

Roth, E. P., and R. B. Pettit, The Effect of Soiling on Solar Mirrors and Techniques Used to Maintain High Reflectivity. SAND79-2422, Albuquerque, Sandia National Laboratories, June 1980.

Rush, E., L. O. Seamons, and C. E. Moeller, 1 MW Calorimetric Receiver for Solar Thermal Test Facility, ASME78-WA/SOL-7, in Proceedings of the 1978 Winter Meeting, ASME, n.d.

Rush, E. E., Design and Operation of Solar Thermal Heat Transfer Systems, SOLERAS 85 Conference, Las Cruces, NM, March 1985.

Rusk, R. S., and L. N. Ernst, Solar Collector Test Facility. SAND74-0405, Albuquerque, Sandia National Laboratories, June 1975.

Rusk, R. S., W. H. McCulloch, and G. W. Treadwell, Test Results from a Parabolic-Cylindrical Solar Collector, (SAND75-5333), in Proceedings of the Solar Energy Society Annual Meeting. Los Angeles, CA, July 18-August 1, 1975.

Russell, D. W., and C. A. Gross, Presentation on Reliability Evaluation of the Solar Total Energy Project (STEP), July 1984. Work performed by Auburn University.

Sallis, D., and J. V. Otts, The Custom Engineering Parabolic Glass Reflector For the Sandia Prototype Solar Collector. SAND81-1619, Albuquerque, Sandia National Laboratories, August 1981.

Sanders Associates, Inc., Parabolic Dish Module Experiment Final Test Report. SAND85-7007, Albuquerque, Sandia National Laboratories, March 1986.

Sanders, G. A., Fire Hazard Study of the Coolidge, Arizona, Solar-Powered Irrigation Facility. SAND81-0781, Albuquerque, Sandia National Laboratories, August 1981.

Sanford, R. J., and V. J. Parks, Stress Analysis of Spherical Mirror Panels. SAND82-7116, Albuquerque, Sandia National Laboratories, April 1982.

Saydah, A. R., A. A. Koenig, R. H. Lambert, and D. A. Kugath, Final Report on Test of STEP, Shenandoah Parabolic Dish Solar Collector Quadrant Facility. SAND82-7153, Albuquerque, Sandia National Laboratories, April 1983. Work performed by General Electric, Philadelphia.

Schimmel, W. P., Solar Incidence Factor and Other Geometric Considerations of Solar Energy Collection. SAND74-0026, Albuquerque, Sandia National Laboratories, July 1974.

Schimmel, W. P., A Vector Analysis of the Solar Energy Reflection and Collection Process, in Proceedings of the 1973 Annual Meeting--U.S. Section of the International Solar Energy Society. NASA-Lewis Research Center, Cleveland, OH, 3-4 October 1973.

Schimmel, W. P., et al., Analysis and Design of Air Heating Unglazed Flat Plate Solar Collectors, in Proceedings of the 1978 ASME Winter Annual Meeting, San Francisco, CA, December 1978; Thermal Storage and Heat Transfer in Solar Energy Systems, ASME, NY, December 1978.

Schimmel, W. P., C. E. Hickox, and D. O. Lee, Tracking and Shadowing Models for Solar Collection Systems, in Proceedings of the ASME Winter Annual Meeting, Atlanta, GA, November 1977.

Schimmel, W. P., and D. O. Lee, Focused Solar Collector Analysis with Axially Varying Input Due to Shadowing from Adjacent Collectors, in Nuclear, Solar, and Process Heat Transfer. AICHE Symposium Series 164, Vol. 73, 1977.

Schimmel, W. P., and D. O. Lee, Synergistic Effects of Shadowing on a Solar Collector Matrix. SAND76-0012, Albuquerque, Sandia National Laboratories, April 1976.

Schimmel, W. P., and D. O. Lee, Sizing of North-South Oriented Focused Solar Collector Fields, Conference in Proceedings of the Institute of Environmental Science, 21st Annual Meeting, 13-16 April 1975.

Schimmel, W. P., D. O. Lee, and J. P. Abbin, Sizing of Focused Solar Collector Fields with Specified Collector Tube in Set Temperature. SAND74-0295, Albuquerque, Sandia National Laboratories, November 1974.

Schimmel, W. P., and D. O. Lee, An Axial Temperature Differential Analysis of Linear Focused Collectors for Solar Power, in Proceedings of 9th Intersociety Energy Conversion Engineering Conference. San Francisco, CA, 26-30 August 1974.

Schimmel, W. P., and R. B. Pope, An Analysis of Linear Focused Collectors for Solar Power, in Proceedings of the 8th Intersociety Energy Conversion Engineering Conference. (SLA-73-5391A), Philadelphia, PA, 13-17 August 1973.

Schimmel, W. P., D. O. Lee, B. E. Bader, R. B. Pope, and W. H. McCulloch, A Combination of the Solar Energy and the Total Energy Concept-The Solar Community, (SLA-73-5318), in Proceedings of 8th Intersociety Energy Conversion Engineering Conference. By AIAA, ACS, AICHE, ASME, IEEE, SAE, University of Pennsylvania, Philadelphia, 13-17 August 1973.

Schimmel, W. P., and R. B. Pope, Solar Community and the Cascaded Energy Concept Applied to a Single House and a Small Subdivision - A Status Report. LA-73-0357, Albuquerque, Sandia National Laboratories, April 1973.

Schindolf, R., Frequency Response Analysis of Fluid Control Systems for Parabolic-Trough Solar Collectors. SAND81-0385, Albuquerque, Sandia National Laboratories, July 1981.

Schindolf, R., Fluid Temperature Control for Parabolic Trough Solar Collectors. SAND79-2006, Albuquerque, Sandia National Laboratories, June 1980.

Schwinkendorf, W. E., Innovative Solar Thermal Dish Technology Development. SAND84-7011, Albuquerque, Sandia National Laboratories, September 1984. Work performed by the BDM Corporation.

Seamons, L. O., E. Rush, and C. E. Moeller, 1 MW Calorimetric Receiver for Solar Thermal Test Facility, ASME78-WA/SOL-7, in Proceedings of the 1978 Winter Meeting, ASME, n.d.

Shaltens, R. K., Advanced Stirling Conversion Systems for Terrestrial Applications. DOE/NASA/33408-1, National Aeronautics and Space Administration, Lewis Research Center, Cleveland, OH, December 1986.

Sharp, J. K., Designing the Manifold Piping for Parabolic Trough Collector Fields. SAND81-7180, Albuquerque, Sandia National Laboratories, April 1982.

Shelby, J. E., and J. Vitko, Weathering of Low Iron Float and CGW-0317 Glass. SAND79-8225, Albuquerque, Sandia National Laboratories, May 1979.

Shelltech Associates, Stress Analysis for Spherically Curved Glass Reflectors. SAND81-7015, Albuquerque, Sandia National Laboratories, June 1981.

Sheratte, M. B., Cleaning Agents and Techniques for Concentrating Solar Collectors. SAND79-7052, Albuquerque, Sandia National Laboratories, May 1980. Work performed by McDonnell Douglas Astronautics Company.

Shurtleff, W. W., Solar Total Energy Control Data Acquisition System. SAND76-0506, Albuquerque, Sandia National Laboratories, November 1976.

Simpson, C. E., and A. C. Ratzel, Heat Loss Reduction Techniques for Annular Solar Receiver Designs. SAND78-1769, Albuquerque, Sandia National Laboratories, February 1979.

Sisson, C. E., and A. C. Ratzel, Annual Solar Receiver Thermal Characteristics. SAND79-1010, Albuquerque, Sandia National Laboratories, October 1980.

Sisson, C. E., and A. C. Ratzel, Thermal Analysis of Receiver Assembly on SLATS Line Focus Solar Collector for an Inoperative Fluid Flow Condition, Internal Memorandum, Sandia National Laboratories, Albuquerque, March 1978.

Solar Kinetics, Inc., Development of a Stretched Membrane Dish I, to be published as SAND88-7035, Albuquerque, Sandia National Laboratories.

Solar Kinetics, Inc., Point-Focus Concentrator Reflector Assembly, Phase I. SAND 87-7014, Albuquerque, Sandia National Laboratories, November 1987.

Sowell, R. R., and D. M. Mattox, Properties and Composition of Electroplated Black Chrome, in Proceedings of the American Electroplating Society Coatings for Solar Collector Symposium, Atlanta, GA, 9-10 November 1976; also in Plating and Surface Finishing, Vol. 65, January 1978.

Sowell, R. R., and R. B. Pettit, Thermal Aging of Electrodeposited Black Chrome (SAND78-0554), in Proceedings of Thermal Power Systems Workshop on Selective Absorber Coatings, Solar Energy Research Institute, Golden, CO, 6-8 December 1977.

Sowell, R. R., and R. B. Pettit, Solar Absorptance and Emittance Properties of Several Solar Coatings, in Journal of Vacuum Science and Technology., Vol. 13, p. 596, 1976.

Sowell, R. R., G. J. Kominiak, R. B. Pettit, and D. M. Mattox, Selective Solar Photothermal Absorbers. SAND75-0361, Albuquerque, Sandia National Laboratories, July 1975.

Sowell, R. R., and D. M. Mattox, High Absorptivity Solar Absorbing Coatings, in Proceedings of the Conference on Structure-Property Relationships in Thick Film and Bulk Coatings, San Francisco, CA, 28-30 January 1974. American Vacuum Society, Journal Vacuum Science Technology, Vol. 11, 1974.

Stearns, J., Stirling Engine Alternatives for the Terrestrial Solar Application. DOE/JPL 1060-91, Jet Propulsion Laboratory, Pasadena, CA, October 1985.

Stine, W. B., and R. W. Harrigan, Solar Energy Fundamentals and Design with Computer Applications. New York, John Wiley & Sons, 1985.

Stine, W. B., and E. L. Harley, Solar Industrial Process Heat (IPH) Project Technical Report October 1981-September 1982. SAND83-2074, Albuquerque, Sandia National Laboratories, October 1983.

Stromberg, R. P., Status Report on the Sandia National Laboratories Solar Total Energy Program, in Solar Energy. Vol. 17, p. 6, 1975.

Stromberg, R. P., A Status Report on the Sandia National Laboratories Solar Total Energy Program, Solar Energy, (1975), in Proceedings of the International Solar Energy Society, U.S. Sectional Annual Meeting, Ft. Collins, CO, 20-23 August 1974.

Stromberg, R. P., Solar Community Program, in The New Mexico Academy of Sciences Bulletin. Vol. 14, No. 2, December 1973.

Stromberg, R. P., Solar Community - Sandia National Laboratories, Albuquerque, New Mexico, in Proceedings of the Solar Heating and Cooling for Buildings Workshop. Washington, DC, 21-23 March 1973.

Stromberg, R. P., A Solar Community - Sandia National Laboratories, Albuquerque, New Mexico. SANDSC-M-72-0794, Albuquerque, Sandia National Laboratories, March 1973.

Stromberg, R. P., Some Results of Solar Thermal Systems Studies, in Proceedings of the Solar Thermal Conversion Workshop. (SLA-73-5037), Arlington, VA, 11-12 January 1973.

Stromberg, R., R. Prairie, R. L. Alvis, E. C. Boes, and I. J. Hall, Average Solar Radiation Available to Various Collector Types, in Proceedings of the Concentrating Solar Collector Conference at Georgia Tech. September 1977.

Stromberg, R. P., Edenburn, M. W., and S. Thunborg, Jr., Proposal to NSF for Support of Solar Community Systems Analysis. SLA-74-0068, Albuquerque, Sandia National Laboratories, February 1974.

Sundberg, W. D., D. O. Lee, and P. C. Montoya, Long Tube Heat Exchanger the Facility and Some Preliminary Tests on the Down Center/Up Annulus Flow Configuration. SAND78-0823, Albuquerque, Sandia National Laboratories, March 1980.

Tate, R. E., D. E. Randall, and D. Powers, Experimental Results of Pitching Moment Tests on Parabolic-Trough Solar-Collector Array Configurations. SAND82-1569, Albuquerque, Sandia National Laboratories, June 1983.

Tate, R. E., D. D. McBride, and D. E. Randall, Mean Wind Loading on Parabolic Trough Solar Collectors, in Journal of Solar Energy Engineering. Vol. 103, p. 103, November 1981.

Thunborg, S., Jr., Systems Analysis Computer Program. SLA-73-0950, Albuquerque, Sandia National Laboratories, October 1973.

Thunborg, S., Jr., System Analysis Program Proposal. SLA-73-0728, Albuquerque, Sandia National Laboratories, July 1973.

Thunborg, S., Jr., Draft Proposal for a Solar Community. SLA-73-0181, Albuquerque, Sandia National Laboratories, February 1973.

Thunborg, S., and J. A. Leonard, System Study in Feasibility of a Coal-Fired Total-Energy Plant, with Solar Options, for Sandia National Laboratories. SAND78-0979, Albuquerque, Sandia National Laboratories, January 1979.

Thunborg, S., Jr., and T. D. Harrison, Semiannual Review, ERDA Thermal Power Systems, Distributed Collectors and Research and Development. SAND77-0112, Albuquerque, Sandia National Laboratories, January 1977.

Thunborg, S., Jr., and T. D. Harrison, Semiannaul Review ERDA Thermal Power Systems, Dispersed Power Systems, Distributed Collectors, and Research and Development Solar Total Energy/Single Collector Test Facility. SAND77-0112, Albuquerque, Sandia National Laboratories, 26-27 January 1977.

Thunborg, S., Jr., and K. D. McAlister, Solar Total Energy System Test Facility Operational Phase Test Plan. SAND77-0690, Albuquerque, Sandia National Laboratories, May 1977.

Thunborg, S., and J. A. Leonard, Solar Total Energy Program Quarterly Report, April-June 1974. SAND74-0208, Albuquerque, Sandia National Laboratories, September 1974.

Thunborg, S., Jr., R. P. Stromberg, and M. W. Edenburn, Proposal to NSF for Support of Solar Community Systems Analysis. SLA74-0068, Albuquerque, Sandia National Laboratories, February 1974.

Thunborg, S., Jr., D. S. Drumheller, and C. D. Lundergan, Proposal to NSF for Support of Systems Analysis Computer Program Proposed for Solar Community Total Energy Concept. SLA-73-1056, Albuquerque, Sandia National Laboratories, December 1973.

Torkelson, L. E., Pump Power Consumption Test Report. SAND80-1707, Albuquerque, Sandia National Laboratories, September 1980.

Torkelson, L. E., 150 kWe Solar Irrigation Project Test and Evaluation Plan. SAND80-1568, Albuquerque, Sandia National Laboratories, September 1980.

Torkelson, L. E., Solar Collector Subsystem Preliminary Design Program Final Report. SAND78-7034, Albuquerque, Sandia National Laboratories, January 1979.

Torkelson, L. E., Solar Collector Design and Fabrication Program Final Report. SAND78-7035, Albuquerque, Sandia National Laboratories, January 1979.

Torkelson, L. E., and D. L. Larson, 1981 Annual Report of the Coolidge Solar Irrigation Project. SAND82-0521, Albuquerque, Sandia National Laboratories, June 1982.

Torkelson, L. E., and D. L. Larson, 1980 Annual Report of the Coolidge Solar Irrigation Project. SAND80-2378, Albuquerque, Sandia National Laboratories, June 1981.

Torkelson, L. E., and M. A. Quintana, Pump Heat Loss Test Report. SAND80-2526, Albuquerque, Sandia National Laboratories, January 1981.

Treadwell, G. W., Thermo-Optical Considerations in Trough Design and Non-Evacuated Receivers, in Proceedings of the Line Focus Solar Thermal Energy Technology Development. Albuquerque, NM, 9-11 September 1980.

Treadwell, G. W., An Analysis of the Influence of Geography and Weather on Parabolic Trough Solar Collector Design. SAND79-2032, Albuquerque, Sandia National Laboratories, March 1980.

Treadwell, G. W., Parabolic Trough/Flat Plate Collector Performance Comparison, in Proceedings of Solar Industrial Process Heat Conference. Oakland, CA, October 31-November 2, 1979.

Treadwell, G. W., Low-Temperature Performance Comparisons of Parabolic-Trough and Flat-Plate Collectors Based on Typical Meteorological Year Data. SAND78-0965, Albuquerque, Sandia National Laboratories, February 1979.

Treadwell, G. W., Design Considerations for Parabolic Cylindrical Solar Collectors (SAND76-0082), in Proceedings of the International Solar Energy Society Annual Meeting. Winnipeg, Manitoba, Canada, 15-20 August 1976.

Treadwell, G. W., Selection of Parabolic Solar Collector Field Arrays. SAND74-0375, Albuquerque, Sandia National Laboratories, May 1975.

Treadwell, G. W., and N. R. Grandjean, Systematic Rotation and Receiver Location Error Effects on Parabolic Trough Annual Performance. SAND81-0159, Albuquerque, Sandia National Laboratories, April 1981.

Treadwell, G. W., and N. R. Grandjean, Annual Performance Comparisons of Parabolic Trough and Flat Plate Collectors Based on Measured Insolation, in Proceedings of the ERDA Solar Concentrating Collector Conference. Georgia Tech., September 1977.

Treadwell, G. W., W. H. McCulloch, and R. S. Rusk, Test Results from a Parabolic Cylindrical Solar Collector. SAND75-5333, 1975 ISES, Los Angeles, CA, July 31, 1975.

Treadwell, G. W., and W. H. McCulloch, Design Analysis of Asymmetric Solar Receivers, (SAND74-0124), in Proceedings of the International Solar Energy Society. U.S. Sectional Annual Meeting, Ft. Collins, CO, 20-23 August 1974.

TRW Energy Systems Group, Conceptual Design, Solar Total Energy Large Scale Experiment, October 21, 1977.

Vandevender, S. G., and R. L. Alvis, Systematic Rotation and Receiver Location Error Effects on Parabolic Trough Annual Performance. SAND81-0159, Albuquerque, Sandia National Laboratories, April 1981.

Vandevender, S. G., L. L. Lukens, and A. M. Perino, Solar Irrigation Program Data Base Management System (SIPDBMS). SAND78-0641, Albuquerque, Sandia National Laboratories, May 1978.

Vandevender, S. G., A. M. Perino, L. L. Lukens, and A. L. Alvis, Preliminary Economic Analysis of Solar Irrigation Systems (SIS) for Selected Systems. SAND77-1403, Albuquerque, Sandia National Laboratories, November 1977.

Vandevender, S. G., and R. L. Alvis, Solar Irrigation Plan. SAND77-0730, Albuquerque, Sandia National Laboratories, June 1977.

Vant-Hull, L. L., and C. L. Pitman, Atmospheric Transmittance Model for a Solar Beam Propagating Between a Heliostat and a Receiver. SAND83-8177, Albuquerque, Sandia National Laboratories, February 1984. Work performed by the University of Houston.

Vitko, J., and J. E. Shelby, Weathering of Low Iron Float and CGW-0317 Glass. SAND79-8225, Albuquerque, Sandia National Laboratories, May 1979.

Veneruso, A. F., Simulation and Operation of a Solar Powered Organic Rankine Cycle Turbine, in Proceedings of the American Society of Mechanical Engineers. September 1976.

Veneruso, A. F., Tracking Angles and Rates for Single Degree of Freedom Solar Collectors. SAND76-0027, Albuquerque, Sandia National Laboratories, March 1976.

Vittitoe, C. N., and F. Biggs, Mathematical Modeling of Solar Concentrators. International Solar Energy Society Annual Meeting, Winnipeg, Manitoba, August 15-20, 1976.

Wally, K., Modular Industrial Solar Retrofit System Constraints, Specifications and Guidelines. SAND81-1300, Albuquerque, Sandia National Laboratories, August 1981.

Wally, K., T. D. Harrison, C. E. Hickox, and A. Ortega, Test Results: High Temperature Thermocline Storage Subsystem. SAND77-1523, Albuquerque, Sandia National Laboratories, April 1978.

Wally, K., Solar Total Energy Test Facility Project Test Results: High-Temperature Thermocline Storage Subsystem. SAND77-1528, Albuquerque, Sandia National Laboratories, April 1978.

Weirick, L. J., Oxidation/Sulfidation of Materials in an SO3/SO2/O2 Thermochemical Transport, Distributed-Receiver, Solar Energy System, Final Report. SAND87-1753, Albuquerque, Sandia National Laboratories, December 1987.

Weirick, L. J., Oxidation/Sulfidation of Material Candidates for Distributed Solar Receiver Thermochemical Transport Program in SO3. SAND85-2091, Albuquerque, Sandia National Laboratories, April 1986.

Weirick, L. J., Oxidation/Sulfidation of Material Candidates for Distributed Solar Receiver Thermochemical Transport Program in SO2/O2. SAND85-0757, Albuquerque, Sandia National Laboratories, June 1985.

Weirick, L. J., Oxidation/Sulfidation of Material Candidates for Distributed Solar Receiver Thermochemical Transport Program. SAND84-2454, in Proceedings of the Distributed Receiver Solar Thermal Technology Conference, Albuquerque, NM, 24-25 April 1985.

Wetherholt, L., in Proceedings of the Solar Irrigation Workshop - 1977. SAND77-0992, Albuquerque, Sandia National Laboratories, June 1977.

Whitson, M., C. Randall, and E. C. Boes, Hourly Direct-Normal Solar Radiation Data Tapes for the United States, in Proceedings of the International Solar Energy Society. American Section Meeting, June 1977.

Wilcoxen, J. F., and S. M. Kohler, Development of a Microprocessor-Based Sun-Tracking System for Solar Collectors. SAND79-2163, Albuquerque, Sandia National Laboratories, April 1980.

Wilson, R. K., and R. C. Reuter, Jr., The Effects of Gaps in Adhesives that Bond Elastically Deformed Panels to Parabolic, Cylindrical Substructures. SAND82-0291, Albuquerque, Sandia National Laboratories, March 1982.

Wilson, R. K., and R. C. Reuter, Jr., Contact Stresses on a Thin Plate After Large Displacements to a Half Parabolic Surface. SAND81-2563, Albuquerque, Sandia National Laboratories, January 1982.

Wilson, R. K., and R. R. Reuter, Contact Stresses on a Thin Plate After Large Displacements to a Full Parabolic Surface. SAND81-2083, Albuquerque, Sandia National Laboratories, December 1981.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the Acurex Solar Collector Model 3001-03. SAND80-0872, Albuquerque, Sandia National Laboratories, March 1982.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the Suntec 9-FT Sagged Glass Solar Collector. SAND81-0370, Albuquerque, Sandia National Laboratories, March 1982.

Workhoven, R, M., and R. L. Alvis, Performance Testing of the TOLTEC TI-410 Concentrating Solar Collector. SAND81-0369, Albuquerque, Sandia National Laboratories, July 1981.

Workhoven R. M., and R. L. Alvis, Qualification Tests in Support of the International Energy-Spanish 500 kWe Distributed Collector System. SAND80-0337, Albuquerque, Sandia National Laboratories, April 1980.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the Scientific Atlanta Faceted Fixed Mirror Solar Concentrator. SAND80-0012, Albuquerque, Sandia National Laboratories, January 1980.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the FMC Fresnel-Belt Concentrating Solar Collector. SAND80/0011, Albuquerque, Sandia National Laboratories, January 1980.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the General Electric Engineering Prototype Collector. SAND79-0514, Albuquerque, Sandia National Laboratories, July 1979.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the Del Concentrating Solar Collector. SAND79-0515, Albuquerque, Sandia National Laboratories, April 1979.

Workhoven, R. M., and V. E. Dudley, Summary Report, Concentrating Solar Collector Test Results Collector Module Test Facility (CMTF) January-December 1978. SAND78-0977, Albuquerque, Sandia National Laboratories, March 1979.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the McDonnell-Douglas Fresnel Lens Solar Collector. SAND78-0625, Albuquerque, Sandia National Laboratories, February 1979.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the Suntec SLATS Solar Collector. SAND78-0623, Albuquerque, Sandia National Laboratories, September 1978.

Workhoven, R. M., and V. E. Dudley, Summary Report: Concentrating Solar Collector Test Results, Collector Module Test Facility. SAND78-0815, Albuquerque, Sandia National Laboratories, May 1978.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the General Atomic Fixed Mirror Solar Concentrator. SAND78-0624, Albuquerque, Sandia National Laboratories, April 1978.

Workhoven, R. M., and V. E. Dudley, Performance Testing of the Hexcel Parabolic Trough Solar Collector. SAND78-0381, Albuquerque, Sandia National Laboratories, March 1978.

Zender, S. N., and H. J. Gerwin, Sandia Solar Total Energy Test Facility Project Final Report. Suntec 260 Square Meter SLATS Subsystem, Albuquerque, Sandia National Laboratories, November 1977.

Zimmerman, J. C., Sun Pointing Programs and Their Accuracy. SAND81-0761, Albuquerque, Sandia National Laboratories, May 1981.

Zimmerman, J. C., and W. H. McCulloch, Small Solar Thermal Power Systems Projects Semiannual Report, October 1977 - March 1978. SAND78-0951, Albuquerque, Sandia National Laboratories, February 1979.

Zimmerman, J. C., et al., Sun Rights Development for the Solar Total Energy-Large Scale Experiment at Shenandoah, Georgia. SAND79-0566A, Albuquerque, Sandia National Laboratories, March 1979.

DISTRIBUTION:

AAI Corporation
York Rd. & Industry Lane
Cockeysville, MD 21030-0126

Acurex Aerotherm
Attn: H. Morse
555 Clyde Avenue
Mountain View, CA 94039

Alabama A&M University (2)
Department of Physics
Attn: M. D. Aggarwal,
A. Tan
P.O. Box 271
Normal, AL 35762

Alpha Solarco
600 Vine St.
Cincinnati, OH 45202

Applied Concepts
Attn: J. S. Hauger
405 Stoney Creek Blvd.
P.O. Box 490
Edinburg, VA 22824

Applied Concepts
Attn: S. Pond
2501 S. Larimer County Rd. 21
Berthound, CO 80513

Argonne National Laboratory
Attn: Robert E. Holtz
Materials and Components Technology Div.
9700 South Cass Avenue
Argonne, IL 60439

Arizona Public Service Co.
Attn: J. McGuirk
P.O. Box 53999
Phoenix, AZ 85072-3999

B&E Technical Services Inc.
Attn: William R. Lang
6314 S. Piccadilly St.
Aurora, CO 80016

Barber-Nichols Engineering
Attn: R. Barber
6325 West 55th Ave.
Arvada, CO 80002

BDM Corporation
Attn: W. E. Schwinkendorf
1801 Randolph Street
Albuquerque, NM 87106

Battelle Memorial Institute
Pacific Northwest Laboratory
Attn: K. Drumheller
4000 NE 41st St.
Seattle, WA 98105

Battelle Memorial Institute
Pacific Northwest Laboratory
Attn: T. Williams
P.O. Box 999
Richland, WA 99352

Bechtel Group, Inc.
Attn: P. DeLaquil
P.O. Box 3965
50 Beale Street
San Francisco, CA 94119

Black & Veatch
Attn: J. C. Grosskreutz
P.O. Box 8405
Kansas City, MO 64114

Boeing Engineering & Construction
Attn: R. Gillette
P.O. Box 3999
Seattle, WA 98124

Budd Company (The)
Attn: W. W. Dickhart
1515 Atlantic Blvd.
Audburn Hills, MI 48055

Budd Company (The)
Plastic R&D Center
Attn: K. A. Iseler
356 Executive Drive
Troy, MI 48084

Burns & Roe (2)
Attn: G. Fontana,
R. Cherdack
800 Kinderkamack Road
Oradell, NJ 07649

California Energy Commission
Attn: Alec Jenkins
1516 - 9th Street
Sacramento, CA 95814

Cal Poly State University
Attn: E. J. Carnegie
San Luis Obispo, CA 93407

California Institute of Technology
Aeronautics Library
Attn: Jean Anderson
MS 205-45
Pasadena, CA 91125

California Polytechnic University
Dept. of Mechanical Engineering
Attn: W. B. Stine
Pomona, CA 91768

Chicago Bridge and Iron
Attn: J. M. Shah
800 Jorie Blvd.
Oak Brook, IL 60521

Clarkson University
Attn: Eric F. Thacher
Mechanical Engineering Dept.
Potsdam, NY 13676

Colorado State University
Attn: T. G. Lenz
Ft. Collins, CO 80523

Columbia Gas System Service Corp.
Attn: J. Philip Dechow
1600 Dublin Road
Columbus, OH 43215

Cummins Engine Company (2)
Attn: Dr. Isoroku Kubo
Mail Code 50179
Box 3005
Columbus, IN 47202-3005

Datron Systems, Inc.
200 West Los Angeles Ave.
Simi Valley, CA 93065-1650

DSET
Attn: G. A. Zerlaut
Box 1850
Black Canyon Stage I
Phoenix, AZ 85029

Donnelly Corporation
Attn: M. DeVries
49 West Third Street
Holland, MI 49423

Electric Power Research Inst. (2)
Attn: E. A. Demeo,
J. E. Cummings
3412 Hillview Avenue
Palo Alto, CA 94303

Energy Technology Engr. Ctr.
Rockwell International Corp.
Attn: W. L. Bigelow
P.O. Box 1449
Canoga Park, CA 91304

ENTECH, Inc. (3)
Attn: R. R. Walters,
W. Hesse,
M. O'Neill
P.O. Box 612246
DFW Airport, TX 75261

Eurodrive, Inc.
30599 San Antonio Rd.
Hayward, CA 94544

Florida Solar Energy Center
Attn: Library
300 State Road 401
Cape Canaveral, FL 32920

Ford Motor Company
Glass Div., Technical Center
Attn: V. L. Lindberg
25500 West Outer Drive
Lincoln Park, MI 48246

Foster Wheeler Solar Dev. Corp. (2)
Attn: M. D. Garber,
R. J. Zoschak
12 Peach Tree Hill Road
Livingston, NJ 07039

Garrett Turbine Engine Co.
Attn: Ed Strain
111 South 34th Street
P.O. Box 5217
Phoenix, AZ 85010

Georgia Power Co. (2)
Attn: E. Ney,
E. Ellingston
7 Solar Circle
Shenandoah, GA 30264

Heery Energy Consultants, Inc.
Project Energy Manager
Attn: Glenn Bellamy
880 West Peachtree St. NW
Atlanta, GA 30309

Highland Plating
Attn: M. Faith
10001 N. Orange Drive
Los Angeles, CA 90038

Industrial Solar Technologies
Attn: Randy Gee
5775 West 52nd Ave.
Denver, CO 80212

Institute of Gas Technology
Attn: Library
34245 State Street
Chicago, IL 60616

Jet Propulsion Laboratory
Attn: M. Alper
4800 Oak Grove Drive
Pasadena, CA 91109

Kearney & Associates
Attn: David W. Kearney
14022 Condessa Drive
Del Mar, CA 92014

LaCour Kiln Service
Attn: J. A. LaCour
P.O. Box 247
Canton, MS 39046

LaJet Energy Co. (2)
Attn: Monte McGlaun,
Carl Williams
P.O. Box 3599
Abilene, TX 79604

Lawrence Berkeley Laboratory
Building 90-2024
University of California
Attn: Dr. Arlon Hunt
1 Cyclotron Road
Berkeley, CA 94720

L'Garde Inc.
Attn: Mitchell Thomas
15181 Woodlawn Ave.
Tustin, CA 92680-6419

John Lucas
865 Canterbury Road
San Marino, CA 91108

Luz International Limited
Attn: Dr. D. W. Kearney
924 Westwood Blvd.
Los Angeles, CA 90024

McCarter Corporation
Attn: R. A. Powell
200 E. Washington St.
P.O. Box 351
Norristown, PA 19404

McDonnell-Douglas Astronautics
Company (3)
Attn: R. L. Gervais,
J. Rogan,
D. Steinmeyer
5301 Bolsa Avenue
Huntington Beach, CA 92647

Mechanical Technology, Inc. (2)
Attn: G. R. Dochat,
J. Wagner
968 Albany Shaker Road
Latham, NY 12110

Meridian Corporation
Attn: D. Kumar
4300 King St.
Suite 400
Alexandria, VA 22302-1508

Midwest Research Institute (2)
Attn: R. L. Martin,
J. Williamson
425 Volker Blvd.
Kansas City, MO 64110

NASA Lewis Research Center
Attn: R. Corrigan, M/S 500-316
T. McCoy, M/S 301-5
R. Puthoff
J. Savino, M/S 301-5
R. Shaltens, MS 301-2
J. Slaby, M/S 301-2
21000 Brookpark Road
Cleveland, OH 44135

New Mexico Solar Energy Institute
New Mexico State University
Box 3SOL
Las Cruces, NM 88003

Parsons of California
Attn: D. R. Biddle
P.O. Box 6189
Stockton, CA 95206

PG&E (2)
Attn: J. Iannucci,
G. Braun
3400 Crow Canyon Rd.
San Ramon, CA 94583

Power Kinetics, Inc.
Attn: W. E. Rogers
415 River Street
Troy, NY 12180-2822

Renewable Energy Institute
Attn: Kevin Porter
1001 Connecticut Avenue NW
Suite 719
Washington, DC 20036

Rockwell International
Rocketdyne Div.
Attn: T. Springer
6633 Canoga Ave.
Canoga Park, CA 91304

Rockwell International
Space Station Systems Division
Attn: I. M. Chen
12214 Lakewood Blvd.
Downey, CA 90241

Sanders Associates
Attn: J. Kesseli
NCA 1-6220
CS 2034
Nashua, NH 03061-2034

Science Applications
International Corp.
Attn: Barry Butler
10401 Roselle Street
San Diego, CA 92121

Solactor Corporation
Attn: Joseph Womack
12900 Auralia Rd.
Miami, FL 33181

Solar Energy Industries Association (2)
Attn: C. LaPorta,
S. Sklar
Suite 610
1730 North Lynn St.
Arlington, VA 22209-2009

Solar Energy Research Inst. (4)
Attn: B. P. Gupta,
J. Thornton,
M. Murphy,
D. Hawkins,
G. Nix
1617 Cole Blvd.
Golden, CO 80401

Solar Kinetics, Inc.
Attn: J. A. Hutchison
P.O. Box 540636
Dallas, TX 75354-0636

Solar Steam
Attn: D. E. Wood
P.O. Box 32
Fox Island, WA 98333

Southern California Edison (2)
Attn: J. N. Reeves,
P. Skvarna
P.O. Box 800
Rosemead, CA 92807

SLEMCO
Attn: A. J. Slemmons
19655 Redberry Dr.
Los Gatos, CA 95030

Stearns-Catalytic Corp.
Attn: T. E. Olson
Box 5888
Denver, CO 80217

Stirling Technology Company (2)
Attn: Mr. Maurice A. White
2952 George Washington Way
Richland, WA 99352

Stirling Thermal Motors
Attn: Ted Godett
2841 Boardwalk
Ann Arbor, MI 48104

Sun Exploration and Production Co.
Attn: R. I. Benner
P.O. Box 2880
Dallas, TX 75221-2880

Sun Power, Inc.
Attn: Mac Thayer
6 Byard St.
Athens, OH 45701

Sundstrand ATG
Attn: D. Chaudoir
P.O. Box 7002
Rockford, IL 61125

Sunsteam
Attn: Eric Micko
998 San Antonio Rd.
Palo Alto, CA 94303

Suntec Systems, Inc. (2)
Attn: Harrison Randolph,
J. H. Davison
Suite B-4
Loring Park Office Bldg.
430 Oak Grove St.
Minneapolis, MN 55403

Swedlow, Inc.
Attn: E. Nixon
12122 Western Avenue
Garden Grove, CA 92645

3M-Energy Control Products (2)
Attn: B. Benson,
J. L. Roche
207-1W 3M Center
St. Paul, MN 55144

Texas Tech University
Dept. of Electrical Engineering
Attn: E. A. O'Hair
P.O. Box 4439
Lubbock, TX 79409

Thermacore, Inc. (2)
Attn: Mr. Donald Ernst
780 Eden Road
Lancaster, PA 17601

TRW (3)
Space & Technology Group
Attn: G. M. Reppucci,
A. D. Schoenfeld,
J. S. Archer
One Space Park
Redondo Beach, CA 90278

U.S. Department of Energy (3)
Albuquerque Operations Office
ETWMD
Attn: C. Garcia,
G. Tennyson,
N. Lackey
P.O. Box 5400
Albuquerque, NM 87185

U.S. Department of Energy
Office of Solar Heat Technologies
Attn: Fred Morse
Forrestal Building
Washington, DC 20585

U.S. Department of Energy
Office of Solar Heat Technologies
Attn: C. Carwile
Forrestal Building
Washington, DC 20585

U.S. Department of Energy (5)
Division of Solar Thermal Tech.
Attn: Howard S. Coleman,
R. Shivers,
S. Gronich,
M. Scheve,
F. Wilkins
Forrestal Building
Washington, DC 20585

U.S. Department of Energy
San Francisco Operations Ofc.
Attn: R. W. Hughey
1333 Broadway
Oakland, CA 94612

U.S. Robotics
Attn: Paul Collard
8100 N. McCormack Blvd.
Skokie, IL 60076

University of Houston (2)
Energy Laboratory; SPA
Attn: Lorin Vant-Hull,
A. F. Hildebrandt
Houston, TX 77004

University of Minnesota
Dept. of Mechanical Engineering
Attn: E. A. Fletcher
111 Church St., S.E.
Minneapolis, MN 55455

University of New Mexico (2)
Department of Mechanical Engr.
Attn: M. W. Wilden,
W. A. Gross
Albuquerque, NM 87131

Viking Solar Systems, Inc.
Attn: George Goranson
1850 Earlmont Ave.
La Canada, CA 91011

WG Associates
Attn: Vern Goldberg
6607 Stonebrook Circle
Dallas, TX 75240

Australian National University
Department of Engineering Physics
Attn: Prof. Stephen Kaneff
P.O. Box 4
Canberra ACT 2600, AUSTRALIA

DLR (2)
Institute for Technical Thermodynamics
Attn: R. Buck,
R. Kohne
Pfaffenwaldring 38-40
7000 Stuttgart 80
FEDERAL REPUBLIC OF GERMANY

Wolfgang Schiel
Schlaich, Bergermann und Partner
Hohenzollernstr. 1
D-7000 Stuttgart 1
FEDERAL REPUBLIC OF GERMANY

400	J. A. Leonard(10)
1510	J. W. Nunziato
1513	D. W. Larson
1820	R. E. Whan
1824	J. N. Sweet
1840	R. J. Eagan
1841	R. B. Diegle
1842	R. E. Loehman
1846	D. H. Doughty
2520	N. J. Magnani
2525	R. P. Clark
2540	G. N. Beeler
2541	J. P. Abbin
3141	S. A. Landenberger (5)
3151	W. I. Klein (3)
3154-1	C. L. Ward (8) for DOE/OSTI
3160	J. E. Mitchell
4031	R. P. Stromberg
6000	D. L. Hartley
6200	V. L. Dugan
6220	D. G. Schueler
6221	E. C. Boes
6215	J. V. Otts
6223	G. J. Jones
6224	D. G. Schueler, Actg.
6225	H. M. Dodd
6210	B. W. Marshall
6215	J. T. Holmes (10)
6216	D. J. Alpert
6217	P. C. Klimas (10)
6217	D. F. Menicucci
6220	A. V. Poore (10)
7470	J. L. Ledman
7471	D. L. Stewart
8470	R. L. Rinne
8471	A. C. Skinrood
8524	J. A. Wackerly

☆ U.S. GOVERNMENT PRINTING OFFICE: 1989—673-049/81056