

D. Yogi Goswami, Ph.D.
Distinguished Professor
Director, Clean Energy Research Center

University of South Florida
4202 East Fowler Avenue, ENB 118
Tampa, FL 33620-5350
E-mail: goswami@usf.edu
Tel: (813) 974-0956 (813) 974-2050 (Fax)

EDUCATION

Ph.D.	Mechanical Engineering, Auburn University, Auburn, Alabama	1975
M.S.	Mechanical Engineering, Auburn University, Auburn, Alabama	1971
B.S.	Mechanical Engineering, University of Delhi, Delhi, India	1969

EMPLOYMENT

9/05 – Present	Distinguished University Professor; John and Naida Ramil Professor; and Director, Clean Energy Research Center, University of South Florida, Tampa, Florida	
5/06 – Present	Visiting Professor, Mechanical Engineering Department, ETH, Swiss Federal Institute of Technology, Zurich, Switzerland	
6/90 – 9/05	UF Research Foundation Professor and Director, Solar Energy & Energy Conversion Laboratory, Department of Mechanical and Aerospace Engineering, University of Florida, Gainesville, Florida	
8/77 - 5/90	Mechanical Engineering Department, North Carolina A&T State University, Greensboro, North Carolina	
	Acting Chairman	January 1988 - December 1988
	Professor	August 1985 - May 1990
	Associate Professor	August 1981 - August 1985
	Assistant Professor	August 1977 - August 1981
6/77 - 8/77	Research Associate, Auburn University, Auburn, Alabama	
1/77 - 5/77	Assistant Professor, Tuskegee Institute, Alabama	
8/75 - 10/75	Project Engineer, Harmon Engineering, Auburn, Alabama	

EDITORIAL ACTIVITIES

- Editor in Chief, *Solar Energy* journal, International Solar Energy Society, 2002 - Present
- Editor in Chief, *Progress in Solar Energy* journal, International Solar Energy Society, 2011 – Present
- Editorial Board, *Progress in Energy & Combustion Science*, Elsevier, 2012 - Present
- Editor in Chief, *Advances in Solar Energy*, American Solar Energy Society, 1994-2008
- Associate Editor, *Journal of Solar Energy Engineering*, ASME-International, 1989-1994
- Editorial Advisory Board, *Advanced Technology of Electrical Engineering and Energy*, Institute of Electrical Engineering, Chinese Academy of Sciences, 2006-Present
- Editorial Advisory Board, *Handbook of Energy Systems*, Elsevier Publications, 2014-Present
- Editorial Advisory Board, *CRC Mechanical Engineering Handbook*, 1995-Present
- Columnist, "ISES Viewpoint", regularly appearing in the *ISES Refocus* magazine, 2004-Present
- International Advisory Board, *Journal of Energy & Environment*, Bangladesh, 2004-Present
- International Advisor, *Hong Kong Institution of Engineers Transactions*, 2004-Present

AWARDS AND CERTIFICATES (Total: 66)

1. Joan Hodges Queneau Palladium Medal, American Association of Engineering Societies (AAES), April 2018
<http://www.aaes.org/2018-joan-hodges-queneau-palladium-medal>
2. Global Achievement Award, (Global Visionary Award) University of South Florida, 2017
<http://www.usf.edu/world/about/news/2017-global-achievement-awards.aspx>
3. Mini-symposium on Solar Energy Science and Technology in Honor of Prof. Yogi Goswami at the ASME 2017 SHTC Summer Heat Transfer Conference, Bellevue, Washington, July 9-12, 2017
4. Karl Böer Award for Solar Energy (2016)
<https://www.ises.org/news/d-yogi-goswami-named-2016-winner-karl-w-b%C3%B6er-solar-energy-medal-merit>.
5. Florida Inventors Hall of Fame (2016) <http://www.floridainvents.org/2016-inductees/>
6. Fellow, International Solar Energy Society (ISES), 2015.
7. Distinguished Professor, Institute for Advanced Discovery and Innovation, USF (2014-2019)
8. Fellow, American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), 2013.
9. Technical Communities Globalization Medal, (ASME) 2013.
10. Charter Fellow, National Academy of Inventors (NAI), 2012.
11. Fellow, American Association for the Advancement of Science (AAAS), 2011.
12. Theodore and Venette Askounes-Ashford Distinguished Scholar Award, Univ. South Florida, 2011.
13. Special Service Award, International Solar Energy Society (ISES), 2011.
14. Outstanding Research Achievement Award, University of South Florida, 2008 and 2011.
15. Member, Pan American Academy of Engineering (PAAE), 2009
16. Frank Kreith Energy Award, ASME, 2007 (Highest Energy Award of ASME)
17. Farrington Daniels Award, ISES, 2007 (Highest Award of ISES)
18. Hoyt Clark Hottel Award, ASES, 2007
19. Distinguished Lecturer, ASME, 2000-2003
20. UF Professional Excellence Program Award, 2002
21. UF Research Foundation Professor, 2001-2004
22. Fellow of ASES, 2000
23. Clean Energy Personality of the Year, 2000

24. Charles Greely Abbott Award for Outstanding Scientific, Technical and Human Contributions to the Development and Implementation of Solar Energy, 1998 (Highest Award of ASES)
 25. Best Paper Award, ASME-International Solar Energy Conference, 1998
 26. John Yellott Award for Outstanding Contributions to the Field of Solar Energy, ASME Solar Energy Division, 1995 (Highest Solar Energy Award from ASME)
 27. Solar Hall of Fame, 1993
 28. Best Paper Award, ASME-International Solar Energy Conference, 1993
 29. Outstanding Leadership in the Advancement of Solar Energy Technologies, Florida Solar Energy Industries Association, 1993
 30. Research Achievement Award, University of Florida, 1992
 31. Fellow of ASME, 1990
- 35 Additional Awards and Certificates of Appreciation from ASME-International, ASES, ISES, ANS, IASEE, IEEE, SAE and professional organizations and universities.

PROFESSIONAL LEADERSHIP ACTIVITIES

Leadership at the Highest Levels of the Professional Societies

- President, International Solar Energy Society (ISES), 2004-2005.
- Governor, ASME-International, 2003-2006.
- Vice President, International Solar Energy Society (ISES), 2002-2004.
- Senior Vice President, ASME-International, 2000-2003.
- President, International Association for Solar Energy Education (IASEE), 2000-2002.
- Chair, Management Committee, ASME Innovative Technologies Institute, LLC, 2004-Present.
- Member, Board of Directors, International Solar Energy Society (ISES), 1999-Present.
- Vice President, International Association for Solar Energy Education (IASEE), 1997-1999.
- Member, Board of Directors, American Solar Energy Society (ASES), 1995-1997, 1998-2000.
- Member, Council on Public Affairs, ASME-International, 1996-2000.
- Chairman, Steering Committee, Intersociety Energy Conversion Engineering Conf. (IECEC), 1993.
- Vice President and Chairman, Energy Resources Board, ASME-International, 1989-91, 1991-93.
- Chairman, ASME Solar Energy Division, 1987-88.
- Chairman, Solar Testing and Measurements Committee, Solar Energy Division, ASME-International, 1981-84.

PATENTS Granted (Total: 22)

1. **Goswami, D.Y.**, Stefanakos, E.K., Jotshi, C.K. and Dhau, J. (2018) "Encapsulation of Thermal Energy Storage Media" as U.S. Patent No. 9,879,166. B1 (January 30 2018)
2. **Goswami, D.Y.**, Stefanakos, E.K., Zhang, Y.Y. (2018) "Enhancement of Photocatalytic Effect with Surface Roughness in Photocatalytic Reactors", U.S. Patent No 9,889,221 B1 (February 13, 2018)

3. Dhau, J., **Goswami, D.Y.**, Stefanakos, E.K., and Jotshi, C.K. (2017) "Encapsulation of Thermal Energy Storage Media" U.S. Patent No. 9,765,251. B2 (Sept. 2017)
4. Ram, M.K., Stefanakos, E.K., and **Goswami, D.Y.** (2017) "Low Cost Chromatic Devices" US Patent 9,684,218 (June 20, 2017).
5. Ram, M.K., Stefanakos, E.K., and **Goswami, D.Y.** (2016) "Method of Encapsulating a Phase Change Material with a Metal Oxide," US Patent 9,493,695 (November 15, 2016)
6. **Goswami, D.Y.**, Chen, H., Stefanakos, E.K. (2016) "Method and System For Generating Power From Low- and Mid-Temperature Heat Sources" US Patent number 9,376,937 (June 28, 2016)
7. Srinivasan, S., Niemann, M.U., **Goswami, D.Y.**, and Stefanakos, E.K. (2013) "Method of Generating Hydrogen-Storing Hydride Complexes", US Patent number 8,440,100 (May 14, 2013).
8. Srinivasan, S., Jurczyk, N., **Goswami, D. Y.**, Stefanakos, E.K., (2012) "Hydrogen storing Hydride complexes", US Patent Number 8,153,020, April, 2012
9. Stefanakos, E.K., **Goswami, Y.**, and Bhansali, (2012) "Rectenna Solar Energy Harvester," US Patent Number 8,115,683 (2012).
10. **Goswami, D.Y.**, Lee, M.S., Kothurkar, N.K., and Stefanakos, E.K. (2011) "Practical method of CO₂ Sequestration," US Patent Number 7,896,953, March 1, 2011.
11. **Goswami, D.Y.** (2009) "Photoelectrochemical Air Disinfection", U.S. Patent No. 7,635,450, December 22, 2009.
12. Sarehraz, M., Buckle, K., Stefanakos, E., Weller, T., and **Goswami, D.Y.** (2009) "Dual-Polarized Feed Antenna Apparatus and Method of Use" US Patent 7,619,570, November 17, 2009.
13. Sarehraz, M., Buckle, K., Stefanakos, E., Weller, T., and **Goswami, Y.** (2009) "High Frequency Feed Structure Antenna Apparatus and Method of Use" US Patent Number 7,486,236, February 3, 2009.
14. **Goswami, D.Y.** (2008) "Enhanced Photocatalytic Air Detoxification and Disinfection by Active Electron Transfer" US Patent No 7,371,351, May 13, 2008.
15. Sarehraz, M., Buckle, K., Stefanakos, E., Weller, T., and **Goswami, D.Y.** (2008) "Dual-Polarized Feed Antenna Apparatus and Method of Use" US Patent 7,362,273, April 22, 2008.
16. Bhansali, S., Buckle, K., **Goswami, D.Y.**, Stefanakos, E., Weller, T. (2006) "Rectifying Antenna and Method of Manufacture," US Patent Serial No. 7,091,918 August 15, 2006.
17. **Goswami, D.Y.** (2006) "Photoelectrochemical Air Disinfection", U.S. Patent Serial No. 7,063,820, June 20, 2006.

18. **Goswami, D.Y.** (1999) "Electrostatic Photocatalytic Air Disinfection," U.S. Patent Serial No. 5,993,738, November 30, 1999.
19. **Goswami, D.Y.** (1999) "Photocatalytic Air Disinfection," U.S. Patent Serial No. 5,933,702 August 3, 1999.
20. **Goswami, D.Y.** (1998) "Photocatalytic System for Indoor Air Quality," US Patent Serial No. 5,835,840, November 10, 1998.
21. **Goswami, D.Y.,** Hsieh, C.K., Jotshi, C.K., Klausner, J.F. (1997) "Contact Resistance-Regulated Storage Heater for Fluids," US Patent Serial No. 5,694,515, December 2, 1997.
22. **Goswami, D.Y.,** Hsieh, C.K., Jotshi, C.K., Klausner, J.F. (1997) "Phase Change Material Storage Heater," US Patent Serial No. 5,687,706, November 18, 1997.

Patents Pending

1. Ram, M.K., Mishra, S., Stefanakos, E.K., and Goswami, D.Y. (2016) "Conductive Polymer Composite Electrodes for High Specific Capacitance and Methods of Making Thereof," US Patent application: 62/356,320. (June 29, 2016).
2. Ram, M.J., Stefanakos, E.K., and Goswami, D.Y., (2016) "Composite Conductive Polymer Films" US Utility Patent application: 15/161,541. (May 23, 2016).
3. Goswami, D.Y., Stefanakos, E.K., Goel, N., (2013) "Integrated Cascading Cycle Solar Thermal Plants" US Patent App. 13/665,270
4. Goswami, D.Y., Stefanakos, E.K., Goel, N., (2013) "Systems And Methods For Thermal Energy Storage" US Patent App. 13/665,389
5. Krakow, B, Stefanakos, E.K., Goswami, D.Y. (2013) "Thermal Energy Storage Systems and Methods" US Patent App. 13/756,098
6. Li, C., Goswami, D.Y., Stefanakos, E.K. (2012), "Systems and Methods for Desalination and Power Generation" US patent Application Number: 61/683,966
7. Ram, M.K., Stefanakos, E.K., Goswami, D.Y. (2015) "Low-cost chromatic devices," US Patent Application Publication Number: US 2015/0234248 A1 (August, 2015)

PUBLICATIONS**Books (Total: 22)**

1. Goswami, D.Y. and Kreith, F. (Co-Editors) (2017) Energy Conversion 2nd Edition, CRC Press/Taylor and Francis Group, Boca Raton, FL.
2. Goswami, D.Y. and Kreith, F. (2016) (Co-Editors), Energy Efficiency and Renewable Energy Handbook, 2nd Edition, CRC Press/Taylor and Francis Group Boca Raton, FL.
3. Kreith, F. and Goswami, D.Y. (2016) (Co-Editors), Energy Management and Conservation Handbook, 2nd Ed., CRC Press/Taylor and Francis Group, Boca Raton, FL
4. Goswami, D.Y. (2015) Principles of Solar Engineering (3rd ed.) CRC Press/Taylor and Francis Publishers, Boca Raton, FL. (*Textbook for Senior Undergraduate and Graduate Students.*)
5. Goswami, D.Y. and Kreith, F. (Co-Editors) (2015) Handbook of Energy Efficiency and Renewable Energy (2nd ed.) CRC Press/Taylor and Francis Group Boca Raton, FL, March.
6. Sherif, S.A. Goswami, D.Y., and Stefanakos, E.K. (Co-Editors), (2014) Handbook of Hydrogen Energy, CRC Press/Taylor and Francis Publishers, Boca Raton, FL.
7. Goswami, D.Y. (2009) (Editor). Passive Solar Architecture Pocket Reference, by James + James/Earthscan, London, UK (for the International Solar Energy Society), September.
8. Goswami, D.Y. (2008) (Editor), Wind Energy Pocket Reference, James + James/Earthscan, London, UK (for the International Solar Energy Society), September.
9. Kreith, F. and Goswami, D.Y. (2008) (Co-Editors), Energy Management and Conservation Handbook, CRC Press/Taylor and Francis Group, Boca Raton, FL, July.
10. Goswami, D.Y. and Kreith F. (2008) (Co-Editors) Energy Conversion, CRC Press/Taylor and Francis Group, Boca Raton, FL, August.
11. Kreith, F. and Goswami, D.Y. (2007) (Co-Editors), Handbook of Energy Efficiency and Renewable Energy, CRC Press/Taylor and Francis Group Boca Raton, FL, March.
12. Goswami, D.Y. (2007) (Editor) Advances in Solar Energy: An Annual Review of Research and Development. Volume 17, James + James/Earthscan, London, UK (for the American Solar Energy Society), March.
13. Goswami, D.Y. (2005) (Editor) Advances in Solar Energy: An Annual Review of Research and Development. Volume 16, James + James/Earthscan, London, UK (for the American Solar Energy Society), August.

14. Martin C.L. and Goswami D.Y. (2005), Solar Energy Pocket Reference, by James + James/Earthscan, London, UK (for the International Solar Energy Society), August.
15. Kreith, F. and Goswami, D.Y. (2004) (Co-Editors) CRC Mechanical Engineering Handbook, 2nd Ed., CRC Press/Taylor and Francis Group, Boca Raton, FL, August.
16. Goswami, D.Y. (2003) (Editor) Advances in Solar Energy: An Annual Review of Research and Development, Volume 15, American Solar Energy Society, Inc., April.
17. Goswami, D.Y. (2001) (Editor) Advances in Solar Energy: An Annual Review of Research and Development. Volume 14, American Solar Energy Society, Inc., September.
18. Goswami, D.Y., Kreith, F. and Kreider, J. (2000) Principles of Solar Engineering (2nd Edition), Taylor and Francis Pub., January. (*NOTE: Textbook for Senior Undergraduate and Graduate Students, (694 pgs.)*)
19. Goswami, D.Y. and Böer, K. (1999) (Co-Editors) Advances in Solar Energy: An Annual Review of Research and Development. Volume 13, American Solar Energy Society, Inc., August.
20. Goswami, D.Y. (1986) Alternative Energy in Agriculture, Vols. I and II. CRC Press, October. (*NOTE: This is a reference book in two volumes, about 200 pp. each.*)
21. Goswami, D.Y. (1986) Author/Editor, Progress in Solar Engineering, Hemisphere Publishing Corp., October.
22. Goswami, D.Y., Klett, D.E., Raiford, M.T. and Stefanakos, E.K. (1979) Solar Radiation Design Data for North Carolina, N. C. Department of Commerce, Raleigh, NC.

Proceedings of Major International Conferences Published as Books (Total: 6, 17 volumes)

1. Goswami, D.Y. and Yuwen, Z. (2007) (Editors) *Proceedings of the 2007 ISES Solar World Congress, Vol. 1-5*, Tsinghua University Press and Springer Pub., Sept. 2007.
2. Goswami, D.Y., Vijayaraghavan, S., Campbell-Howe, B. (2005) (Editors) *Proceedings of the 2005 ISES Solar World Congress*, Orlando, FL, August 2005.
3. Goswami, D.Y., Kannberg, L., Somasundaram, S., Mancini, T. (1995) (Editors) *1995 IECEC Proceedings, Vol. 1-4, 30th Intersociety Energy Conversion Engineering Conference*, Orlando, Florida, July 31-August 4, 1995.
4. Goswami, D.Y. (1988) (Editor) *1988 IECEC Proceedings, 23rd Intersociety Energy Conversion Engineering Conference*, Denver, Colorado, Vol. 1-3, Aug 1-4, 1988.

5. Goswami, D.Y., Watanabe, K. and Healey, H. (1987) (Editors), *Solar Engineering-1987, Proceedings of the 1987 ASME/JSME/JSES Solar Energy Conference, Vol. 1-2*, Honolulu, Hawaii, March 22-27, 1987.
6. Goswami, D.Y. (1984) (Editor) *Solar Engineering-1984, Proceedings of the Sixth Annual ASME Solar Energy Conference*, Las Vegas, Nevada, April 9-12, 1984.

Book Chapters (Total: 38)

1. Besarati, Saeb M., and Goswami, D.Y. (2016) "Supercritical CO₂ and Other Advanced Power Cycles for Concentrating Solar Thermal (CST Systems)," Chapter 8, in Advances in Concentrating Solar and Thermal Research and Technology (Eds., Manuel J. Blanco, and Lourdes Ramirez-Santigosa), Woodhead/Elsevier Publishing Series in Energy.
2. Al-Kharabsheh, S., Abutayeh, M., and Goswami, D.Y. (2015) "Solar Distillation and Drying," in, Earth Systems and Environmental Sciences Reference Module (Elsevier Pubs.) <http://mrw.elsevier.com/eses/>
3. Dalrymple, O., and Goswami, D.Y. (2015) "Mechanistic Modeling of Photocatalytic Water Disinfection," in, Advances in Photocatalytic Disinfection of the *Green Chemistry and Sustainable Technology Series*, (Springer Pubs.) <http://www.springer.com/series/11661>
4. Abutayeh, M., Li, C., Goswami, D.Y., and Stefanakos, E. (2014) "Solar Desalination," Chapter 13 in Desalination: Water from Water (Ed. Jane Kucera), Scrivener/John Wiley Publishing, MA.
5. Mahishi, M., Goswami, D.Y., Ibrahim, G., and Elnashaie, S.S.E.H. (2014) "Hydrogen Production from Biomass and Fossil Fuels", Ch. 5, in Handbook of Hydrogen Energy, CRC Press/Taylor and Francis Publishers, Boca Raton, FL.
6. Srinivasan, S.S., Sharma, P.C., Stefanakos, E.K., and Goswami, D.Y. (2014) "Metal Hydrides" Ch. 20, in Handbook of Hydrogen Energy, CRC Press/Taylor and Francis Publishers, Boca Raton, FL.
7. Srinivasan, S.S., Sharma, P.C., Stefanakos, E.K., and Goswami, D.Y. (2014) "Complex Hydrides" Ch. 21, in Handbook of Hydrogen Energy, CRC Press/Taylor and Francis Publishers, Boca Raton, FL.
8. Srinivasan, S.S., Sharma, P.C., Stefanakos, E.K., and Goswami, D.Y. (2014) "Nanomaterials for Hydrogen Storage Hydrides" Ch. 22, in Handbook of Hydrogen Energy, CRC Press/Taylor and Francis Publishers, Boca Raton, FL.
9. Srinivasan, S.S., Sharma, P.C., Stefanakos, E.K., and Goswami, D.Y. (2014) "Chemical Hydrogen Storage" Ch. 23, in Handbook of Hydrogen Energy, CRC Press/Taylor and Francis Publishers, Boca Raton, FL.
10. Goswami, D.Y. (2013) "Solar Energy," Chapter 8 in *2013 Survey of Energy Resources*, (Ed.) J. Trinnaman, World Energy Council, London.

11. Vijayaraghavan, S., Goswami, D.Y. (April 2013) "Solar Thermal Energy, Industrial Heat Applications." In: Cleveland, C.J., (Ed.), Encyclopedia of Energy, Elsevier, Inc., pp. 661-667
12. Goswami, D.Y. (2010) "Solar Energy," Chapter 10 in *2010 Survey of Energy Resources*, (Ed.) J. Trinnaman, World Energy Council, London.
13. Mahishi, M. and Goswami, D.Y. (2010) "Hydrogen from Biomass and Fossil Fuels", section 2.2.2 in CRC Handbook of Hydrogen Energy (Ed.) S.A. Sherif, Taylor and Francis publishers.
14. Goswami, D.Y. (2008) "Solar Energy Resources", chapter 5 in Energy Conversion, CRC Press/Taylor and Francis Group, Boca Raton, FL, August.
15. Goswami, D.Y. and S. Vijayaraghavan (2008) "Solar Cooling", section 18.4 in chapter 18 "Solar Thermal Energy Conversion" in Energy Conversion, CRC Press/Taylor and Francis Group, Boca Raton, FL, August.
16. Messenger, R., and Goswami, D.Y. (2008) "Photovoltaics" section 20.1 in chapter 20 "Photovoltaics Fundamentals, Technology and Application" in Energy Conversion, CRC Press/Taylor and Francis Group, Boca Raton, FL, August.
17. Stefanakos, E., Goswami, D.Y., Srinivasan S. and Wolan J. (2008) "Hydrogen Energy," Chapter in Environmentally Conscious Alternative Energy Production, (M. Kutz, editor), pp. 165-206. John Wiley & Sons, publisher.
18. Winston, R., McConnell, R., and Goswami, D.Y., (2008) "Concentrating PV Technologies" section 20.3 in chapter 20 "Photovoltaics Fundamentals, Technology and Application" in Energy Conversion, CRC Press/Taylor and Francis Group, Boca Raton, FL, August.
19. D.Y. Goswami and Kreith, F. (2007) "Global Energy System" chapter 1 in Handbook of Energy Efficiency and Renewable Energy, CRC Press/Taylor and Francis Group, Boca Raton, FL, March.
20. D.Y. Goswami and S. Vijayaraghavan (2007) "Solar Cooling", section 20.4 in chapter 20 "Solar Thermal Energy Conversion," in Handbook of Energy Efficiency and Renewable Energy, CRC Press/Taylor and Francis Group, Boca Raton, FL, March.
21. D.Y. Goswami and R. Messenger (2007) "Photovoltaics", section 23.1 in chapter 23 "Photovoltaics Fundamentals, Technology and Application," in Handbook of Energy Efficiency and Renewable Energy, CRC Press/Taylor and Francis Group, Boca Raton, FL, March.
22. Winston, R., McConnell, R., and D.Y. Goswami (2007) "Concentrating PV Technologies", section 23.3 in chapter 23 "Photovoltaics Fundamentals, Technology and Application," in Handbook of Energy Efficiency and Renewable Energy, CRC Press/Taylor and Francis Group, Boca Raton, FL, March.
23. Goswami, D.Y. (2007) "Solar Energy," Chapter 10 in *2007 Survey of Energy Resources*, (Ed.) J. Trinnaman, World Energy Council, London.

24. Goswami, D.Y., (2004). "Types of Derived Energy," section 7.2 in Chapter 7 "Energy Resources" in Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group, Boca Raton, FL,.
25. Goswami, D.Y., (2004). "Solar Energy Resources," section 7.6 in Chapter 7 "Energy Resources" in Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group, Boca Raton, FL,.
26. Jotshi, C.K., and Goswami, D.Y. (2004) "Energy Storage" section 8.7 in chapter 8 "Energy Conversion" in Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group, Boca Raton, FL,.
27. Vijayaraghavan, S., Goswami, D.Y. (2004) "Solar Thermal Energy, Industrial Heat Applications." In: Cleveland, C.J., (Ed.), Encyclopedia of Energy, vol. 5, Elsevier, Inc., pp. 661-667.
28. Al-Kharabsheh, S., Goswami, D.Y. (2004) "Solar Distillation and Drying." In: Cleveland, C.J. (Ed.), Encyclopedia of Energy, vol. 5, Elsevier, Inc., pp. 597-606.
29. Goel, N., Mirabal, S.T., Ingley, H.A., and Goswami, D.Y. (2003) "Hydrogen Production." In: Böer, K.W., and Goswami, D.Y. (Eds.), Advances in Solar Energy, vol. 15, ASES, pp. 405-458.
30. Goswami, D.Y. Kreider, J.F. (2001) "Photovoltaic Systems." In: Borbely, A.-M., and Kreider, J.F. (Eds.), Distributed Generation: The Power Paradigm for the New Millennium, vol. 20, CRC Press/Taylor and Francis Group Inc., pp. 95-117.
31. Goswami, D.Y. (Editor) (1998) "Energy Resources" (Chapter 7). In: Kreith, F. (Ed.), CRC Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group., pp. 7-1 to 7-70.
32. Goswami, D.Y. (1998) "Solar Energy Resources" (Section 7.2). In: Kreith, F. (Ed.), CRC Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group pp. 7-4 to 7-5.
33. Goswami, D.Y. (Editor) (1998) "Energy Conversion" (Chapter 8). In: Kreith, F. (Ed.), CRC Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group, Inc., pp. 8-1 to 8-200.
34. Goswami, D.Y. (1998) "Fuel Cells" (Section 8.13.2). In: Kreith, F. (Ed.), CRC Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group pp. 8-160 to 8-169.
35. Jotshi, C.K., Goswami, D.Y. (1998) "Energy Storage" (Section 8.7). In: Kreith, F. (Ed.), CRC Handbook of Mechanical Engineering, CRC Press/Taylor and Francis Group pp. 8-98 to 8-104.
36. Goswami, D.Y. (1998) "Solar Thermal Energy Conversion" (Section 8.10). In: Kreith, F. (Ed.), CRC Handbook of Mechanical Engineering, CRC Press, Inc., pp. 8-117 to 8-128.
37. Öberg, V., Goswami, D.Y. (1998) "A Review of Liquid Desiccant Cooling." In: Böer, K.W, (Ed.), Advances in Solar Energy, vol. 12, ASES, pp. 431-470.

38. Goswami, D.Y. (1995) "Engineering of Solar Photocatalytic Detoxification and Disinfection." In: Böer, K.W. (Ed.), *Advances in Solar Energy*, Vol. 10, ASES, pp. 165-210.

REFEREED PAPERS IN TECHNICAL JOURNALS (Journals: 195; Conf. Proc's: 207; Total:)

1. Demirkaya, G., Padilla, R.V., Fontalvo, A., Bula, A., and Goswami, D.Y. (2018). "Experimental and theoretical analysis of the Goswami Cycle operating at low temperature heat sources" *ASME's Journal of Energy Resources Technology (JERT)*, Vol. 140, 072005-113. DOI: 10.1115/1.4039376
2. Zeyghami, M., Goswami, D.Y., and Stefanakos, E. (2018) A review of clear sky radiative cooling developments and applications in renewable power systems and passive building cooling," *Solar Energy Materials and Solar Cells*, 178, 115-128.
3. Abdelmola, F., Ram, M. Takshi, A., Stefanakos, E., Kumar, A., and Goswami, D. (2017) Photoelectrochemical cell of hybrid regioregular poly (3-hexylthiophene-2,5-diyl) and molybdenum disulfide film") *Surface Review and Letters v. 24(2)*.
4. Azad, I., Ram, M. K., Goswami, D. Y., & Stefanakos, E. (2017, May). "Design and fabrication of metal-insulator-metal diode for high frequency applications." *Infrared Technology and Applications XLIII* (Vol. 10177, p. 101772J). International Society for Optics and Photonics.
5. Srinivasan, S.S., Demirocak, D.E., Goswami, Y., and Stefanakos, E. (2017) "Investigation of catalytic effects and compositional variations in desorption characteristics of LiNH₂H₂-nano MgH₂ " MDPI, *Applied Sciences*, 2017, 7, 701: doi: 10.3390/app7070701
6. Moloney, F., Almatrafi, E., and Goswami, D.Y. (2017) Working fluid parametric analysis for regenerative supercritical organic Rankine cycles for medium geothermal reservoir temperatures, *Energy Procedia*, 129, 599-606.
7. Ozgener, O., Ozgener, L., and Goswami, D.Y. (2017) "Seven years of energetic and exergetic monitoring for vertical and horizontal EAHE assisted agricultural building heating," *Renewable and Sustainable Energy Reviews*, 80, pp. 175-179.
8. Pirasaci, T., Wickramaratne, C., Moloney, F., Goswami, D.Y., and Stefanakos, E.K. (2017) Dynamics of phase change in a vertical PCM capsule in the presence of radiation at high temperatures," *Applied Energy*, vol. 206, pp. 498-506. doi:10.1016/J.APENERGY.2017.08.187
9. Ram, M., Myers, P., Jotschi, C., Goswami, D., et al. (2017) "Microencapsulated dimethyl terephthalate phase change material for heat transfer fluid performance enhancement," *International Journal of Energy Research*, 41(2).
10. Zeyghami, M., Stefanakos, E., and Goswami, D.Y. (2017) "Development of one-dimensional photonic selective emitters for energy harvesting applications," *Solar Energy Materials and Solar Cells*, 163, pp, 191-198.

11. Archibold, A.R., Bhardwaj, A., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2016) "Comparison of numerical and experimental assessment of a latent heat energy storage module for a high-temperature phase-change materials," *Journal of Energy Researches Technology*, Vol. 138, September.
12. Azad, I., Ram, M.K., Goswami, D.Y., and Stefanakos, E.K. (2016) "Fabrication and characterization of ZnO Langmuir-Blodgett films and its use in metal-insulator-metal tunnel diode," *Langmuir*, July, DOI: 10.1021/acs.langmuir.6b02182
13. Kamal, R., Wickramaratne, C., Bhardwaj, A., Goswami, D.Y., Stefanakos, E.K., Ingley, H., "Field performance of gas-engine driven heat pumps in a commercial building" *International journal of refrigeration* 68 (2016) 15–27.
14. Mueller, A., Orosz, M., Narasiman, A.K., Kamal, R., Hemond, H.F., and Goswami, Y. (2016) "Evolution and feasibility of decentralized concentrating solar thermal power systems for modern energy access in rural areas," *MRS Energy and Sustainability: A Review Journal*, doi:10.1557/mre.2016.4; pp. 1-32.
15. Myers, P.D., Alam, T.E., Kamal, R., Goswami, D.Y., and Stefanakos E. (2016) "Nitrate salts doped with CuO nanoparticles for thermal energy storage with improved heat transfer" *Applied Energy*, 165, pp. 225-233.
16. Myers, Ph.D., and Goswami, D.Y. (2016) Thermal energy storage using chloride salts and their eutectics," *Applied Thermal Engineering*, (July 2016). <http://dx.doi.org/10.1016/j.applthermaleng.2016.07.046>
17. Pirasaci, T. and Goswami, D.Y. (2016) Influence of design on performance of a latent heat storage system for a direct steam generation power plant, *Applied Energy*, 162, pp. 644-652.
18. Ram, M.K., Goswami, D.Y., Takshi, A., and Stefanakos, E. (2016) A new chromic (TouchChromic) thin film. *Acta Materialia*, 121, pp. 326-330.
[Video available at: <http://www.sciencedirect.com/science/article/pii/S1359645416307078>
19. Ram, M.K., Myers, P.D., J.D., Goswami, D.Y., Stefanakos, E.K., Arvanitis, K.D., Papanicolaou, E., and Belessiotis, V. (2016) "Microencapsulated dimethyl terephthalate phase change material for heat transfer fluid performance enhancement," *International Journal of Energy Research*, DOI: 10.1002/34.3615.
20. Ram, M.K., Myers, P.D., Jotshi, C., Goswami, D.Y., Stefanakos, E.K., Arvanitis, K., Belesiotis, V., and Papanikolaou, E., (2016) "Microencapsulated dimethyl terephthalate phase change material for heat transfer fluid performance enhancement," *International Journal of Energy Research*, DOI 10.1002/34.3615 (2016).
21. Ram, M.K., Goswami, D.Y., Takshi, A., and Stefanakos, E.K. (2016) "A new chromic (TouchChromic) thin film," *Acta Materialia*, 121 (2016) 325-330.

22. Alam, T.E., Dhau, J.S., Goswami, D.Y., and Stefanakos, E.K. (2015) "Macroencapsulation and characterization of phase change materials for latent heat thermal energy storage systems," *Applied Energy*, 154, pp 92-101.
23. Archibold, A.R., Goswami, D.Y., Rahman, M.M., and Stefanakos, E.K. (2015) Multi-mode heat transfer analysis during freezing of an encapsulated storage medium," *International Journal of Heat and Mass Transfer*, 84, pp. 600-609.
24. Archibold, A.R., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2015) "The effects of radiative heat transfer during the melting process of a high temperature phase change material confined in a spherical shell," *Applied Energy*, 138, pp. 675-684.
25. Bellan, S., Alam, E.E., Gonzalez-Aguilar, J., Romero, M., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2015) "Numerical and experimental studies on heat transfer characteristics of thermal energy storage system packed with molten salt PCM capsules," *Applied Thermal Engineering*, 90:5, pp. 970-979.
26. Besarati, S.M., Goswami, D.Y., and Stefanakos, E.K. (2015) "Development of a solar receiver based on compact heat exchanger technology for supercritical carbon dioxide power cycles," *ASME Journal of Solar Energy Engineering: Transactions of the ASME*, June, Vol. 137, pp. 031018 1-8.
27. Lee, M.S., Goswami, D.Y., Kothurkar, N., and Stefanakos, E.K. (2015) "Development and evaluation of calcium oxide absorbent immobilized on fibrous ceramic fabrics for high temperature carbon dioxide capture," *Powder Technology*, 274, pp. 313-318.
28. Myers, Jr., P.D., Goswami, D.Y., and Stefanakos, E.K. (2015) "Molten salt spectroscopy for quantification of radiative absorption in novel metal chloride-enhanced thermal storage media." *Journal of Solar Energy Engineering: Transactions of the ASME*. Vol. 137, No. 4, August. Article number: 041002.
29. Zeyghami, M., and Goswami, D.Y. (2015) "A review of solar thermo-mechanical refrigeration and cooling methods," *Renewable and Sustainable Energy Reviews*, 51, pp. 1428-1445.
30. Archibold, A.R., Gonzalez-Aguilar, J., Rahman, M.M., Goswami, D.Y., Romero, M., and Stefanakos, E.K. (2014) "The melting process of storage materials with relatively high phase change temperatures in partially filled spherical shells," *Applied Energy*, 116, pp. 243-252.
31. Archibold, A.R., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2014) "Analysis of heat transfer and fluid flow during melting inside a spherical container for thermal energy storage," *Applied Thermal Engineering*, 64 (1-2), pp. 396-407.

32. Bellan, S., Gonzalez-Aquilar, Romero, M., Rahman, M.M., Goswami, D.Y., Stefanakos, E.K., and Couling, D. (2014) "Numerical analysis of charging and discharging performance of a thermal energy storage system with encapsulated phase change material," *Applied Thermal Engineering*, (vol. 71, #1, October; pp. 481-500). doi: 10.1016/j.applthermaleng.2014.07.009.
33. Besarati, S.M., and Goswami, D.Y. (2014) "A computationally efficient method for the design of the heliostat field for solar power tower plant," *Renewable Energy*, 69, 226232.
34. Besarati, S.M., and Goswami, D.Y. (2014) "Analysis of advanced supercritical carbon dioxide power cycles with a bottoming cycle for concentrating solar power applications," *Journal of Solar Energy Engineering*, February, Vol. 136, pp 010904-1-7.
35. Besarati, S.M., Goswami, D.Y., and Stefanakos, E.K. (2014) "Optimal heliostat aiming strategy for uniform distribution of heat flux on the receiver of a solar power tower plant," *Energy Conversion and Management*, 84, pp. 234-243.
36. Celestin, M., Krishnan, S., Bhansali, S., Stefanakos, E., and Goswami, D. Y. (2014) "A review of self-assembled monolayers as potential terahertz frequency tunnel diodes," *Nano Research*, Vol. 7, #5, May, pp. 589-625. (DOI: 10.1007/s12274-014-0429-8, Tsinghua University Press: Springer).
37. Lee, M.S., Kothukur, N., Goswami, D.Y., and Stefanakos, E.K. (2014) "Development and evaluation of calcium oxide absorbent immobilized on fibrous ceramic fabrics for high temperature carbon dioxide capture", *Powder Technology*.
38. Udom, I., Myers, P.D., Ram, J.K., Hepp, A.F., Archibong, E., Stefanakos, E.K., and Goswami, D.Y. (2014) "Optimization of Photocatalytic degradation of phenol using simple photocatalytic reactor," *American Journal of Analytical Chemistry*, 5, 743-750. Online August 2014 in Scientific Research <http://www.scrip.org/journal/ajac> <http://dx.doi.org/10.4236/ajac.2014.511083>
39. Udom, I., Zhang, Y., Ram, M.K., Stefanakos, E.K., Elzein, R., Schlaf, R., Hepp, A.F., and Goswami, D.Y. (2014) "A simple photolytic reactor employing Ag-doped ZnO nanowires for water purification," *Thin Solid Films*, 564 (1) pp. 258-263.
40. Abutayeh, M., Goswami, D.Y., and Stefanakos, E.K. (2013) "Theoretical and experimental simulation of passive vacuum solar flash desalination," *ASME Journal of Solar Energy Engineering*, May, 135, pp. 021014-1-021014-13.
41. Abutayeh, M., Goswami, D.Y., and Stefanakos, E.K. (2013) "Solar thermal power plant simulation," *Environmental Progress and Sustainable Energy*, 32 (2), pp. 417-424, doi: 10.1002/ep.11636
42. Besarati, S.M., and Goswami, D.Y. (2013) "Analysis of advanced supercritical carbon dioxide power cycles with a bottoming cycle for concentrating solar power applications," *Journal of Solar Energy Engineering (Transactions of the ASME)* Vol. 136, No. 1. Doi: 10.1115/1.4025700

43. Besarati, S.M., Padilla, R.V., R., Goswami, D.Y., and Stefanakos, E. (2013) "The potential of harnessing solar radiation in Iran: Generating solar maps and viability study of PV power plants," *Renewable Energy*, 53, May, pp. 193-199.
44. Demirkaya, G., Padilla, R.V., R., and Goswami, D.Y. (2013) "A review of combined power and cooling cycles," *Wiley Interdisciplinary Reviews (WIREs) Energy and Environment* 2 (5), pp. 534-547. Doi: 10.1002/wene.75
45. Demirocak, D.E., Ram, M.K., Srinivasan, S.S., Goswami, D.Y., and Stefanakos, E.K. (2013) "A novel nitrogen rich porous aromatic framework for hydrogen and carbon dioxide storage," *Journal of Materials Chemistry A*, 1 (44), 13800-13806.
46. Demirocak, D.E., Srinivasan, S.S., Ram, M.K., Goswami, D.Y., and Stefanakos, E.K. (2013) "Volumetric hydrogen sorption measurements: Uncertainty error analysis and the importance of thermal equilibration time," *International Journal of Hydrogen Energy*, 38, number 3, February, pp. 1469-1477.
47. Demirocak, D.E., Srinivasan, S.S., Ram, M.K., Kuhn, J.N., Muralidharan, R., Li, X., Goswami, D.Y., and Stefanakos, E.K. (2013) "Reversible hydrogen storage in the Li-Mg-N-H system: The effects of Ru doped single walled carbon nanotubes on NH₃ emission and kinetics," *International Journal of Hydrogen Energy*, (available online <http://dx.doi.org/10.1016/j.ijhydene.2013.05.176>) (Vol. 38, #24, August, pp. 0039-10049.
48. Fedock, J.A., Srinivasan, S.S., Goswami, D.Y., and Stefanakos, E.K. (2013) "Low temperature polymer electrolyte fuel cell performance degradation," *Physics and Technical Sciences, Sciknow Publications, Ltd.*, PTS 2013, 1(2): 15-27. DOI: 10.12966/pts.07.03.2013.
49. Goel, N., Gonzalez-Aguilar, J., Romero, M., Steinfeld, A., Stefanakos, E.K., and Goswami, D.Y. (2013) "CRISPTower: A solar power tower R+D initiative in India." In the *Energy Procedia* (Vol. 57) 2014, pp. 301-310, of the 2013 ISES Solar World Congress, Cancun, Mexico, November (SWC 2013 11044).
50. Koiry, S.P., Celestin, M.E., Ratnadurai, R., Veerender, P., Majumder, C., Krishnan, S., Stefanakos, E., Goswami, Y., Aswai, D.K., and Bhansali, S. (2013) "Ferroelectric like characteristics in redox active polymer of 5, 10, 15, 20 tetra(4-hydroxyphenyl)-porphyrin at room temperature," *Applied Physics Letters*, 103 (3), 033302. doi: 10.1063/1.4813736.
51. Kuravi, S., Goswami, D.Y., Stefanakos, E.K., Jotshi, C.K., and Trahan, J. (2013) "Investigation of a high temperature packed bed sensible heat thermal energy storage system with large sized elements," *Journal of Solar Energy Engineering*. 135(4), 041008; doi: 10.1115/1.4023969
52. Kuravi, S., Trahan, J., Stefanakos, E., Rahman, M., and Goswami, D.Y., (2013) "Thermal Energy Storage Technologies and Systems for Concentrating Solar Power Plants" *Progress in Energy and Combustion Science*, 39, No. 4, March, pp. 285-319.
53. Li, C., Besarati, S., Goswami, Y., Stefanakos, E., and Chen, H. (2013). "Reverse osmosis desalination driven by low temperature supercritical organic rankine cycle," *Applied Energy*, 102, pp. 1071-1080.

-
54. Li, C., Goswami, Y., and Stefanakos, E. (2013) "Solar assisted sea water desalination: A review," *Renewable and Sustainable Energy Reviews*, 19, 136-163.
55. Li, C., Kosmadakis, G., Manolakos, D., Stefanakos, E., Papadakis, G., and Goswami, D.Y. (2013) "Performance investigation of concentrating solar collectors coupled with a transcritical organic Rankine cycle for power and seawater desalination co-generation," *Desalination*, vol. 318, no. 3, June, pp. 107-117.
56. Razykov, T.M., Amin, N., Ergashev, B., Ferekides, C.S., Goswami, D.Y., Hakkulov, M.K., Kouchkarav, K.M. Sopian, K., Sulaiman, M.Y., and Ullal, H.S. (2013). Effect of CdCl₂ treatment on physical properties of CdTe films with different compositions fabricated by chemical molecular beam deposition. *Applied Solar Energy* English translation of *Heliotehnika* 49 (1), pp. 35-39. Doi: 10.3103/S0003701X1301009X
57. Razykov, T.M., Amin, N., Ergashev, B., Ferekides, C.S., Goswami, D.Y., Hakkulov, M.K., Kouchkarav, K.M. Sopian, K., Sulaiman, M.Y., and Ullal, H.S. (2013). "Effect of the composition on physical properties of CdTe absorber layer fabricated by chemical molecular beam deposition for use in thin film solar cells." *Journal of Applied Physics*, Vol. 112, issue 12, July: Article number 023517
58. Razykov, T.M., Amin, N., Alghoul, M., Ergashev, B., Ferekides, C.S., Goswami, Y., Hakkulov, M.K., Kouchkarov, K.M. Sopian, K., Sulaiman, M.Y., and Ullal, H.S. (2013) "Revolutionary novel and low cost CMBD method for fabrication of CdTe absorber layer for use in thin film solar cells." *Materials Technology*, Vol. 28, No. 1-2, March, pp. 15-20.
59. Srinivasan, S., Demirocak, E.E., Sharma, P., Goswami, Y., and Stefanakos, E. (2013) "Reversible hydrogen storage characteristics of catalytically enhanced Ca(Li)-nMG-B-N-H system," *Bulletin of the American Physical Society*, volume 58, No. 4, Q15.4, pp. 159-160.
60. Udom, I., Ram, M.K., Stefanakos, E.K., Hepp, A.F., and Goswami, D.Y. (2013). "One dimensional-ZnO nanostructures: Synthesis, properties and environmental applications," *Materials Science in Semiconductor Processing*, 16, 2070-2083.
61. Vidhi, R., Kuravi, S., Goswami, D.Y., Stefanakos, E., and Sabau, S.A. (2013) "Organic fluids in a supercritical Rankine cycle for low temperature power generation," *Journal of Energy Resources Technology, Transactions of the ASME* 135 (4), doi: 10.1115/1.4023513.
62. Zhang, Y., Ram, M.K., Stefanakos, E.K., and Goswami, D.Y. (2013) "Enhanced photocatalytic activity of iron doped zinc oxide nanowires for water decontamination," *Surface and Coatings Technology*, 217, No. 25, February, pp. 19-123.
63. Zhang, Y., Stefanakos, E.K., and Goswami, Y.D. (2013) "Effect of photocatalytic surface roughness on reactors effectiveness for indoor air cleaning," *Building and Environment*, 61, pp. 188-196.

64. Abutayeh, M., Goswami, Yogi, and Stefanakos, E.K. (2012) "Solar thermal power plant simulation," *Environmental Progress and Sustainable Energy*, American Institute of Chemical Engineers. Wiley Online Library, DOI 10.1002/ep.11636, (April 13, 2012). [Vol. 32, issue 2, July 2013, pp. 417-424]
65. Alvi, F., Basnayaka, P., Ram, M.K., Gomez, H., Stefanakos, E., Goswami, Y. and Kumar, A. (2012) "Graphene-polythiophene nanocomposite as novel supercapacitor electrode material," *Journal of New Materials for Electrochemical Systems*, vol. 15, no. 2, pp. 89-95.
66. Boone, J., Krishnan, S., Stefanakos, E. K., Goswami, Y., Bhansali, S. (2012) "Coplanar-waveguide-fed folded dipole slot antenna for wireless local area network applications and V-Band frequency operations," *IET Microwaves, Antennas and Propagation* 6 (5), April, pp. 583-587.
67. Demirocak, D.E., Kuravi, S., Ram, M.K., Jotshi, C.K., Srinivasan, S., Kumar, A., Goswami, Y., and Stefanakos, E. (2012) "Investigation of polyaniline nanocomposites and cross-linked polyaniline for hydrogen storage," *Advanced Materials Research*, vol. 445, 571-576.
68. Demirocak, D.E., Ram, M.K., Srinivasan, S., Kumar, A., Goswami, Y., and Stefanakos, E. (2012) "Spillover enhancement for hydrogen storage by Pt doped hypercrosslinked polystyrene," *International Journal of Hydrogen Energy*, 37, Issue 17, July, pp. 12402-12410.
69. Demirkaya, G., Besarati, S., Padilla, R.V., R., Ramos Archibold, A., Goswami, D.Y., Rahman, M.M., Stefanakos, E.K. (2012) "Multi-objective optimization of a combined power and cooling cycle for low-grade and mid-grade heat sources," *Journal of Energy Resources Technology (Transactions of the ASME)*, 134, (3) doi: 10.1115/1.4005922 .
70. Krishnan, S., Goswami, Y., and Stefanakos, E. (2012) "Nanoscale Rectena for thermal energy conversion to electricity," *Technology and Innovation*, 14, pp.103-113.
71. Kuravi, S., Goswami, Y., Stefanakos, E.K., Ram, M., Jotshi, C., Pendyala, S., Trahan, J., Sridharan, P., Rahman, M., and Krakow, B. (2012) "Thermal energy storage for concentrating solar power plants," *Technology and Innovation*, 14, pp. 81-91.
72. Li, C., Goswami, D.Y., Shapiro, A., Stefanakos, E.K., and Demirkaya, G. (2012) "A new combined power and desalination system driven by low grade heat for concentrated brine," *Energy*, 46, number 1, pp. 582-595.
73. Razykov, T.M., Amin, N., Alghoul, M.A., Ergashev, B., Ferekides, C.S., Goswami, Y., Hakkulov, M.K., Kouchkarov, K.M., Sopian, K., Sulaiman, M.Y., and Ullal, H.S. (2012) "Effect of the composition on physical properties of CdTe absorber layer fabricated by chemical molecular beam deposition for use in thin film solar cells," *Journal of Applied Physics*, 112, 023517.
74. Padilla, R.V., R., Ramos Archibold, A., Demirkaya, G., Besarati, S., Goswami D.Y., Rahman, M.M., ad Stefanakos, E.K. (2012) "Performance analysis of a Rankine cycle integrated with the Goswami combined power and cooling cycle." *Journal of Energy Resources Technology, (Transactions of the ASME) 134, 032001-1.*

-
75. Wijewardane, S., Goswami, D. Y., (2012), "Exergy of partially coherent thermal radiation", *Energy*, 42, issue 1, June, pp 497-502. doi:10.1016/j.energy.2012.03.019.
76. Wijewardane, S., Goswami, D. Y., (2012) "A review on surface control of thermal radiation by paints and coatings for new energy applications" *Renewable and Sustainable Energy Reviews*, Vol. 16, 1863–1873.
77. Zhang, Y., Ram, M.K., Stefanakos, E.K., and Goswami, D.Y. (2012) "Synthesis, characterization, and applications of ZnO nanowires," *Journal of Nanomaterials*, vol. 2012, Article ID 624520, doi: 10.115/2012/624520.
78. Alvi, F., Ram, M., Basnayaka, P.A., Stefanakos, E., Goswami, Y., Hoff, A., and Kumar, A. (2011) "Electrochemical supercapacitors based on graphene-conducting polythiophenes nanocomposite," *Electrochemical Society (ECS) Transactions*, vol. 35, no. 34, pp. 167-174.
79. Alvi, F., Ram, M., Basnayaka, P.A., Stefanakos, E., Goswami, Y., and Kumar, A. (2011) "Graphene-polyethylenedioxythiophene Conducting polymer nanocomposite-based supercapacitor," *Electrochimica Acta* 56 (25), October, pp. 9406-9412.
80. Chen, H., Goswami, D. Yogi, Rahman, M.M., and Stefanakos, E.K. (2011) "A supercritical Rankine cycle using zeotropic mixture working fluids for the conversion of low-grade heat into power," *Energy*, vol. 36 (1), January, pp. 549-555.
81. Chen, H., Goswami, D.Y., Rahman, M.M., and Stefanakos, E.K. (2011) "Energetic and Exergetic analysis of CO₂- and R32-based Transcritical Rankine Cycles for Low-Grade Heat Conversion," *Applied Energy*, 88, pp. 2802-2808.
82. Dalrymple, O.K., Isaacs, W., Stefanakos, E., Trotz, M.A. and Goswami, D.Y. (2011) "Lipid vesicles as model membranes in photocatalytic disinfection studies," *Journal of Photochemistry and Photobiology A: Chemistry*, 221 (1), June, pp. 64-70.
83. Demirkaya, G., Padilla, R.V., Goswami, D.Y., Stefanakos, E., Rahman, M.M. (2011) "Analysis of a combined power and cooling cycle for low-grade heat sources," *International Journal of Energy Research*, 35 (13), October, pp. 1145-1157.
84. Ozgener, O., Ozgener, L., and Goswami, D.Y. (2011) "Experimental prediction of total thermal resistance of a closed loop EAHE for greenhouse cooling system," *International Communications in Heat and Mass Transfer*, 38 (6), July, pp. 711-716.
85. Padilla, R.V., Demirkaya, G., Goswami, D.Y., Stefanakos, E., and Rahman, M.M. (2011) "Heat transfer analysis of parabolic trough solar receiver," *Applied Energy*, Vol. 88 (12), December, pp. 5097-5110.

86. Ram, M.K., Gomez, H., Alvi, F., Stefanakos, E., Goswami, Y. and Kumar, A. (2011) "Novel nanohybrid structured regioregulator polyhexylthiophene blend films for photoelectrochemical energy applications," *Journal of Physical Chemistry C* 115 (44), November, pp. 21987-21995.
87. Abutayeh, M., and Goswami, D.Y. (2010) "Passive Vacuum Solar Flash Desalination," *AiChE Journal*, 56(5):1196-1203, May.
88. Abutayeh, M., and Goswami, D.Y. (2010) "Experimental Simulation of Solar Flash Desalination," *Journal of Solar Energy Engineering (ASME)*, Vol. 132 (4) #041015.
89. Celestin, M., Krishnan, S., Goswami, D.Y., Stefanakos, E., and Bhansali, S. (2010) "Tunnel diodes fabricated for rectenna applications using self-assembled nanodielectrics," *Procedia Engineering*, 5, 1055-1058.
90. Chen, H., Goswami, D.Y., and Stefanakos, E.K. (2010) "A Review of Thermodynamic Cycles and Working Fluids for the Conversion of Low-Grade Heat," *Renewable and Sustainable Energy Reviews*, 14 (9), 3059-3067.
91. Dalrymple, O.K., Stefanakos, E., Trotz, M.A., and Goswami, D.Y. (2010) "A review of the mechanisms and modeling of photocatalytic disinfection." *Applied Catalysis B: Environmental*, 98 (1-2), pp. 27-38.
92. Krishnan, S., Emirov, Y., Bhansali, S., Stefanakos, E., and Goswami, Y. (2010) "Thermal stability analysis of thin-film Ni-NiO-CR tunnel junctions," *Thin Solid Films*, 518 (12), pp. 3367-3372.
93. Mbah, J., Srinivasan, S., Krakow, B., Goswami, Y., Stefanakos, E., Appathurai, N. and Wolan, J.T. (2010) "Effect of nanostructured RuO₂-CoS₂ anodes on the performance of H₂S electrolytic splitting system," *International Journal of Hydrogen Energy* 35(19), October, 10094-10101.
94. Mbah, J., Weaver, E., Srinivasan, S., Krakow, B., Wolan, J., Goswami, Y., and Stefanakos, E. (2010), "Low Voltage H₂O electrolysis for enhanced Hydrogen Production," *Energy*, vol. 35 (12), December, pp. 5008-5012.
95. Padilla, R.V., Demirkaya, G., Goswami, D.Y., Stefanakos, E., and Rahman, M.M. (2010) "Analysis of power and cooling cogeneration using ammonia-water mixture," *Energy*, Vol. 35 (12), December, pp. 4649-4657.
96. Ratnadurai, R., Krishnan, S., Stefanakos, E., Goswami, D.Y., and Bhansali, S. (2010) "Effects of Dielectric Deposition on the Electrical Characteristics of MIM Tunnel Junctions," *Procedia Engineering*, 5, pp. 1059-1062.
97. Srinivasan, S.S., Niemann, M.U., Hattrick-Simpers, J.R., McGrath, K., Sharma, P.C., Goswami, D.Y. and Stefanakos, E.K. (2010) "Effect of Nano Additives on Hydrogen Storage Behavior of the Multinary Complex Hydride LiBH₄/LiNH₂/MgH₂", *International Journal of Hydrogen Energy* 35 (18), September, pp. 9646-9652.

98. Srinivasan, S., Ratnadurai, R., Niemann, M.U., Phani, A.R., Goswami, D.Y., and Stefanakos, E.K. (2010) "Reversible Hydrogen Storage Electrospun Polyaniline Fibers," *Journal of Hydrogen Energy*, 35(1):225-230, January.
99. Tarquinio, K.M., Kothurkar, N.K., Goswami, D.Y., Sanders Jr., R.C., Zaroitskyu, A.L. and LeVine, A.M. (2010) "Bactericidal effects of silver plus titanium dioxide-coated endotracheal tubes on *Pseudomonas aeruginosa* and *Staphylococcus aureus*," *International Journal of Nanomedicine* 5(1), pp. 177-183.
100. Abutayeh, M., Goswami, D.Y. (2009) "Solar flash desalination under hydrostatically sustained vacuum," *ASME Solar Energy Engineering Journal*, vol. 131, No. 3. (August), pp. 0310161-0310167.
101. Choudhury, P., Srinivasan, S.S., Bhethanabotla, V.R., Goswami, D.Y., McGrath, K., and Stefanakos, E.K. (2009) "Nano-Ni doped Li-Mn-B-H system as a new hydrogen storage Candidate," *International Journal of Hydrogen Energy*, 34(15), pp. 6325-6334.
102. Kislov, N., Lahiri, J., Verma, H., Goswami, D.Y., Stefanakos, E., and Batzill, M. (2009) "Photocatalytic degradation of methyl orange over single crystalline ZnO: Orientation Dependence of Photoactivity and Photostability of ZnO," *Langmuir*, 25 (3) March, pp. 3310-3315.
103. Krishnan, S., Bhansali, S., Stefanakos, E., and Goswami, Y. (2009) "Thin Film Metal-Insulator-Metal Junction for Millimeter Wave detection," *Procedia Chemistry* 1, pp.409-412.
104. Krishnan, S. Emirov, Y. Bhansali, S. Stefanakos, E. Goswami, Y. (2009) "Thermal Stability Analysis of Thin-film Ni-NiO-Cr Tunnel Junctions", *Thin Solid Films*, DOI: 10.1016/j.tsf.2009.10.021
105. Lee, M.S., Goswami, D.Y., Stefanakos, E.K. (2009) "Immobilization of calcium oxide solid reactant on an yttria fabric and thermodynamic analysis of UT-3 thermochemical hydrogen production cycle," *International Journal of Hydrogen Energy*, 34(2) January, pp.745 - 752.
106. Maroo, S.C., and Goswami, D.Y. (2009) "Theoretical analysis of a single-stage and two-stage solar driven flash desalination system based on passive vacuum generate," *Desalination*, 249 (2), pp. 635-646.
107. Niemann, M.U., Srinivasan, S.S., Kumar, A., Stefanakos, E.K., Goswami, D.Y., and McGrath, K. (2009) "Processing Analysis of the Ternary $\text{LiH}_2\text{-MgH}_2\text{-LiBH}_4$ System for Hydrogen Storage," *International Journal of Hydrogen Energy*, 34(9):8086-8093 (October)
108. Niemann, M.U., Srinivasan, S.S., Phani, A.R., Kumar, A., Goswami, D.Y., and Stefanakos, E.K. (2009) "Room Temperature Reversible Hydrogen Storage in Polyaniline (PANI) Nanofibers" *Journal of Nanoscience and Nanotechnology*, August, 9(8), pp. 4561-4565.

109. Niemann, M.U., Srinivasan, S.S., McGrath, K., Kumar, A., Goswami, D.Y., and Stefanakos, E.K. (2009). "Nanocrystalline effects on the reversible hydrogen storage characteristics of complex hydrides." *Ceramic Transactions*, 202, pp. 111-117. Code 76020
<http://www3.interscience.wiley.com/cgi-bin/bookhome/121543912/>
110. Razykov, T.J., Anderson, T., Acher, R., Crasium, V., Crisale, Goswami, Y., Kucharov, K.M., Li, S., Wijayaghawan, S., and Ergashev, B. (2009) "Electron microprobe X-ray spectral analysis of CMBD CdTe Films of Different Composition" *Applied Solar Energy*, 45:1, pp. 48-50.
111. Vittetoe, A.W., Niemann, M.U., Srinivasan, S.S., K. McGrath, Kumar, A., Goswami, D.Y., E.K. Stefanakos, and Thomas, S. (2009) "Destabilization of LiAlH₄ by Nanocrystalline MgH₂", *International Journal of Hydrogen Energy*, 34:5, pp. 2333-2339.
112. Escobar, D., Srinivasan, S., Goswami, D., Stefanakos, E., (2008), "Hydrogen Storage Behavior of ZrNi 70/30 and ZrNi 30/70 Composites." *Journal of Alloys and Compounds*, 458:1-2, June, pp. 223-230.
113. Mahishi, M.R., Sadrameli, M.S., Vijayaraghavan, S. and Goswami, D.Y. (2008) "A Novel Approach to Enhance the Hydrogen Yield of Biomass Gasification using CO₂ Sorbent," *Journal of Engineering for Gas Turbines and Power* (ASME), 130(1), January, pp. 011501-0115018.
114. Niemann, M., Srinivasan, S., Kumar, A., Phani, A., Goswami, Y. and Stefanakos, E.K. (2008) "Nanomaterials for Hydrogen Storage Applications: A Review," *Journal of Nanomaterials*, Vol. 2008, Issue 1, article # 950967, DOI:10.1155.
115. Srinivasan, S., Escobar, D., Goswami, D.Y. and Stefanakos, E. (2008) "Effects of catalysts doping on the thermal decomposition behavior of Zn(BH₄)₂" *International Journal of Hydrogen Energy*, 33, May, pp. 2268-2272.
116. Srinivasan, S., Escobar, D., Jurczyk, M., Goswami D.Y. and Stefanakos, E. (2008) "Nanocatalyst Doping of Zn(BH₄)₂ for On-board Hydrogen Storage," *Journal of Alloys and Compounds*, 462 (1-2), August, pp. 294-302.
117. Goel, N. and Goswami, D.Y. (2007) "Experimental verification of a new heat and mass transfer enhancement concept in a microchannel falling film absorber" *ASME Journal of Heat Transfer*, 129, pp. 154-161.
118. Mahishi, M.R. and Goswami, D.Y. (2007) "An experimental study of hydrogen production by gasification of biomass in the presence of a CO₂ sorbent", *International Journal of Hydrogen Energy*, 32 (14), September, pp. 2803-2808.
119. Mahishi, M.R. and Goswami, D.Y. (2007) "Thermodynamic optimization of biomass gasifier for hydrogen production," *International Journal of Hydrogen Energy*, 32 (16), November, pp. 3831-3840.

120. Sadramelli, S.M. and Goswami, D.Y. (2007) "Optimum operating conditions for a combined power and cooling thermodynamic cycle" *Applied Energy*, 84, (3) pp. 254-265.
121. Martin, C. and Goswami, D.Y. (2006) "Effectiveness of Cooling Production with a Combined Power and Cooling Thermodynamic Cycle," *Journal of Applied Thermal Engineering*, 26:5-6, pp. 576-582.
122. Srinivasan, S., Wade, J., Stefanakos, E.K. and Goswami, D.Y. (2006) "Synergistic effects of sulfation and co-doping on the visible light photocatalysis of TiO₂," *J. Alloys and Compounds*, 424 (1-2), pp. 322-326.
123. Vijayaraghavan, S. and Goswami, D.Y. (2006) "A Combined Power and Cooling Cycle Modified to Improve Resource Utilization Efficiency Using a Distillation Stage." *Energy: The International Journal*, Volume 31, Issues 8-9, pp. 1177-1196.
124. Vohra, A., Goswami, D.Y., Deshpande, D.A. and Block, S.S. (2006) "Enhanced Photocatalytic Disinfection of Indoor Air," *Applied Catalysis B: Environmental*, 65, pp. 57-65.
125. Goel, N. and Goswami, D.Y. (2005) "A Compact Falling Absorber," *ASME Journal of Heat Transfer*, 127: 9, pp. 957-965.
126. Goel, N. and Goswami, D.Y. (2005) "Analysis of a Counter-Current Vapor Flow Absorber," *International Journal of Heat and Mass Transfer*, 48:7, pp. 1283-1292.
127. Vijayaraghavan, S. and Goswami, D.Y. (2005) "Organic Working Fluids for a Combined Power and Cooling Cycle," *ASME Journal of Energy Resources Technology*, 127:2, pp. 125-130.
128. Vohra, A., Goswami, D.Y., Deshpande, D.A. and Block, S.S. (2005) "Enhanced Photocatalytic Inactivation of Bacterial Spores on Surfaces in Air," *Journal of Industrial Microbiology and Biotechnology*, 32: 8, pp. 364-370.
129. Al-Kharabsheh, S., and Goswami, D.Y., (2004), "Theoretical Analysis of Water Desalination System using Low Grade Solar Heat," *Journal of Solar Energy Engineering*, 126:2, pp.774-780.
130. Goswami, D.Y., Vijayaraghavan, S., Lu, S., and Tamm, G., (2004), "New and Emerging Developments in Solar Energy," *Solar Energy Journal*, 76:1-3, pp. 33-43.
131. Mirabel, S.T., Goel, N., and Ingley, H.A., Goswami, D.Y., (2004), "Utilization of Domestic Fuels for Hydrogen Production" *International Journal of Power and Energy Systems*, 24:3, pp. 239-245.

132. Tamm, G., Goswami, D.Y., Lu, S., and Hasan, A.A., (2004), "Theoretical and Experimental Investigation of an Ammonia-Water Power and Refrigeration Thermodynamic Cycle," *Solar Energy Journal*, 76:1-3, pp. 217-228.
133. Al-Kharabsheh, S. and Goswami, D.Y., (2003), "Analysis of an innovative water desalination system using low-grade solar heat," *Desalination*, pp. 323-332, Sept.
134. Al-Kharabsheh, S. and Goswami, D.Y., (2003), "Experimental study of an innovative solar water desalination system utilizing a passive vacuum technique," *Solar Energy Journal*, 75, pp. 395-401.
135. Goswami, D.Y., (2003), "Decontamination of Ventilation Systems Using Photocatalytic Air Cleaning Technology," *ASME Journal of Solar Energy Engineering*, 125:3, pp. 359-365.
136. Hasan, A.A., and Goswami, D.Y., (2003), "Exergy Analysis of a Combined Power and Refrigeration Thermo-dynamic Cycle Driven by a Solar Heat Source," *ASME Journal of Solar Energy Engineering*, 125: 1, pp. 55-60.
137. Lu, S. Goswami, D.Y., (2003), "Optimization of a Novel Combined Power/Refrigeration Thermodynamic Cycle" *ASME Journal of Solar Energy Engineering*, 125:2, pp. 212-217.
138. Mago, P., and Goswami, D.Y., (2003), "A Study of the Performance of a Hybrid Liquid Desiccant Cooling System Using Lithium Chloride," *ASME Journal of Solar Energy Engineering*, 125: 1, pp. 129-131.
139. Tamm, G., Goswami, D.Y., Lu, S., and Hasan, A., (2003), "A Novel Combined Power and Cooling Thermodynamic Cycle for Low Temperature Heat Sources – Part I: Theoretical Investigation," *ASME Journal of Solar Energy Engineering*, 125:2, pp. 218-222.
140. Tamm, G., and Goswami, D.Y., (2003), "A Novel Combined Power and Cooling Thermodynamic Cycle for Low Temperature Heat Sources – Part II: Experimental Investigation," *ASME Journal of Solar Energy Engineering*, 125:2, pp. 223-229.
141. Vijayaraghavan, S., and Goswami, D.Y., (2003), "Photocatalytic Oxidation of Toluene in Water from an Algae Pond with High Dissolved Oxygen Content," *ASME Journal of Solar Energy Engineering*, 125:2, pp. 230-232.
142. Vijayaraghavan, S., and Goswami, D.Y., (2003), "Organic Working Fluids for a Combined Power and Cooling Cycle," *ASME Advanced Energy Systems Division Publication "AES" v. 43*, pp. 77-85.
143. Vijayaraghavan, S., and Goswami, D. Y., (2003), "On Evaluating Efficiency of a Combined Power and Cooling Cycle," *ASME Journal of Energy Resources Technology*, 125:3, pp. 221-227.
144. Cooper, A.T., and Goswami, D.Y., (2002), "Evaluation of Methylene Blue and Rose Bengal for Dye Sensitized Solar Water Treatment," *ASME Journal of Solar Energy Engineering*, 124:3, pp. 305-310.

145. Fumo, N., and Goswami, D.Y., (2002), "Study of an Aqueous Lithium Chloride Desiccant System: Air Dehumidification and Desiccant Regeneration." *Solar Energy Journal*, 72:4, pp. 351-361.
146. Hasan, A.A., and Goswami, D.Y., (2002), "First and Second Law Analysis of a New Power and Refrigeration Thermodynamic Cycle Using a Solar Heat Source," *Solar Energy Journal*, 73: 5, pp. 385-393.
147. Vijayaraghavan, S., and Goswami, D.Y., (2002), "On the Calibration of a Solar UV Radiometer to Measure Broadband UV Radiation from Blacklight Lamps." *ASME Journal of Solar Energy Engineering*, 124:3, pp. 317-319.
148. Goswami, D.Y., Ek, G., Leung, M., Jotshi, C.K., Sherif, S.A., and Colacino, F. (2001), "Effect of Refrigerant Charge on the Performance of Air Conditioning Systems." *International Journal of Energy Research*, 25:8, pp. 741-750.
149. Jotshi, C.K., Goswami, D.Y., Klausner, J.F., and Malakar, S. (2001), "A Water Heater Using Very High-Temperature Storage and Variable Thermal Contact Resistance," *International Journal of Energy Research*, 25:10, pp. 891-898.
150. Tseng, C.C., and Goswami, D.Y., (2001), "Effect of Tilt Angle and Temperature Difference on the Solar Heat Gain Coefficient Measurement of a Fenestration System." *ASHRAE Transactions*, 107, Part 1: pp. 684-690, 2001.
151. Hingorani, S., Greist, H., Goswami, T., and Goswami, D.Y., (2000), "Clean up of Contaminated Indoor Air Using Photocatalytic Technology," *Journal for the Air and Waste Management Association*, 98, pp. 422-429.
152. Martin, V., and Goswami, D.Y., (2000), "Effectiveness of Heat and Mass Transfer Processes in a Packed Bed Liquid Desiccant Dehumidifier/Regenerator." *International HVAC & R Research Journal*, 6:1, pp. 21-39.
153. Shah, D.O., Goswami, D.Y., Daering, D.W., and Srikanth, D.V. (2000), "Feasibility Study of a Controlled Positive Displacement Piston to Predict Actual Thin Film Lubrication," *Journal of the Institution of Engineers (India)*, Calcutta, India, 80, pp. 153-157, March.
154. Xu, F., Goswami, D.Y., and Bhagwat, S.S. (2000), "A Combined Power/Cooling Cycle." *Energy: The International Journal*, 25:3, pp. 233-246.
155. Davanagere, B.S., Sherif, S.A. and Goswami, D.Y. (1999) "A Feasibility Study of a Solar Desiccant Air Conditioning System Part II: Transient Simulation and Economics of a Solar-Assisted Desiccant Cooling System," *International Journal of Energy Research*, 23, pp. 103-116.

-
156. Goswami, T.K., Hingorani, S., Greist, H., Goswami, D.Y., and Block, S.S. (1999) "Photocatalytic System to Destroy Bioaerosols in Air," *Journal of Advanced Oxidation Technologies*, 4:2, pp. 185-188.
 157. Goswami, D.Y. and Xu, F. (1999) "Analysis of a New Thermodynamic Cycle for combined Power and Cooling Using Low and Mid Temperature Solar Collectors," *Journal of Solar Energy Engineering*, 121: 2, pp 91-97.
 158. Martin, V. and Goswami, D.Y. (1999) "Heat and Mass Transfer in Packed Bed Liquid Desiccant Regenerators: An Experimental Investigation," *Journal of Solar Energy Engineering*, 121:3, pp.162-170.
 159. Xu, F., and Goswami, D.Y. (1999) "Thermodynamic Properties of Ammonia-water Mixtures for Power-cycle Applications." *Energy: The International Journal*, 24, pp. 525-536.
 160. Cooper, A. and Goswami, D.Y. (1998) "Solar Photochemical Detoxification and Disinfection for Water Treatment in Tropical Developing Countries," *Journal of Advanced Oxidation Technologies*, 3:2, pp. 151-154.
 161. Davanagere, B.S., Sherif, S.A. and Goswami, D.Y. (1998) "A Feasibility Study of a Solar Desiccant Air Conditioning System Part I: Psychometrics and Analysis of the Conditioned Zone," *International Journal of Energy Research*, 23, pp. 7-21.
 162. Goswami, D.Y. (1998) "Solar Thermal Power Technology: Present Status and Ideas for the Future," *Energy Sources: Journal of Extraction, Conversion, and the Environment*, 20, pp. 137-145, February-March.
 163. Jotshi, C.K., Hsieh, C.K., Goswami, D.Y., Klausner, J.F., and Srinivasan, N. (1998). "Thermal Storage in Ammonium Alum/Ammonium Nitrate Eutectic for Solar Space Heating Applications," *Journal of Solar Energy Engineering*, 120:1, pp. 20-24.
 164. Leung, M., Hsieh, C.K., and Goswami, D.Y. (1998) "Prediction of Thermal Contact Conductance in Vacuum by Statistical Mechanics," *Journal of Heat Transfer*, 120:1, pp. 51-57.
 165. Leung, M., Jotshi, C.K., Goswami, D.Y., Shah, D.O. and Gregory, A. (1998) "Measurement of Absorption Rates of HFC Single and Blended Refrigerants in POE," *International Journal of HVAC&R Research*, 4:2, pp. 141-145.
 166. Öberg, V., and Goswami, D.Y. (1998) Experimental Study of the Heat and Mass Transfer in a Packed Bed Liquid Desiccant Air Dehumidifier," *Journal of Solar Energy Engineering*, 120:4, pp. 289-297.
 167. Sherif, S., Goswami, D.Y., Mathur, G., Iyer, S., Davanagere, B. and Colacino, F. (1998) "A Feasibility Study of Steam Jet Refrigeration," *International Journal of Energy Research*, 22, pp. 1323-1336.

168. Block, S.S., Seng, V.P., Goswami, D.Y. (1997) "Chemically Enhanced Sunlight for Killing Bacteria," *Journal of Solar Energy Engineering*, 119:1, pp. 85-91.
169. Goswami, D.Y. (1997) "A Review of Engineering Developments of Aqueous Phase Solar Photocatalytic Detoxification and Disinfection Processes," *Journal of Solar Energy Engineering*, 119:2, pp. 101-107.
170. Goswami, D.Y., Shah, D.O., Jotshi, C.K., Bhagwat, S., Leung, M. and Gregory, A. (1997) "Foaming Characteristics of HFC Refrigerants," *ASHRAE Journal*, 39:6, pp. 39-44.
171. Goswami, D.Y., Sharma, S.K., Mathur, G.D., and Jotshi, C.K. (1997) "Techno-Economic Analysis of Solar Detoxification Systems," *Journal of Solar Energy Engineering*, 119:2, pp. 108-113.
172. Goswami, D.Y., Trivedi, D., and Block, S.S. (1997), "Photocatalytic Disinfection of Indoor Air," *Journal of Solar Energy Engineering*, 119:1, pp. 92-96.
173. Leung, M., Hsieh, C.K., and Goswami, D.Y. (1997) "Application of Boltzmann Statistical Mechanics in the Validation of the Gaussian Summit-Height Distribution in Rough Surfaces," *Journal of Tribology*, 119:4, pp. 846-850.
174. Anheden, M., Goswami, D.Y., and Svedberg, G. (1996) "Photocatalytic Treatment of Wastewater from 5-Fluorouracil Manufacturing," *Journal of Solar Energy Engineering*, 118:1, pp. 2-8.
175. Li, H., Hsieh, C.K., and Goswami, D.Y. (1996) "Conjugate Heat Transfer Analysis for Fluid Flow in a Phase Change Energy Storage Unit," *International Journal of Numerical Methods for Heat and Fluid Flow*, 6:3, pp. 77-90.
176. Terry, C.K., Peterson, J.E. and Goswami, D.Y. (1996) "Feasibility of an Iodine Gas Laser Pumped by Concentrated Terrestrial Solar Radiation," *Journal of Solar Energy Engineering*, 118, pp. 136-139.
177. Terry, C.K., Peterson, J.E., and Goswami, D.Y. (1996) "Terrestrial Solar-Pumped Iodine Gas Laser with Minimum Threshold Concentration Requirements," *AIAA Journal of Thermophysics and Heat Transfer*, 10:1, pp. 54-59.
178. Terry, C.K., Peterson, J.E., and Goswami, D.Y. (1996) "Feasibility of a Terrestrial Solar Pumped Iodine Gas Laser," *Journal of Solar Energy Engineering*, 118:2, pp. 136-139.
179. Roman, J.R., Peterson, J., and Goswami, D.Y. (1995) "An Off-Axis Cassegrain Optimal Design for Short Focal Length Parabolic Solar Concentrators," *Journal of Solar Energy Engineering*, 117:1, pp. 51-56.
180. Bedford, J., Klausner, J.F., Goswami, D.Y., and Schanze, K.S. (1994) "Performance of Nonconcentrating Solar Photocatalytic Oxidation Reactors Part II: Shallow Pond Configuration," *Journal of Solar Energy Engineering*, 116:1, pp. 8-13.

181. Klausner, J.F., Martin, A.R., Goswami, D.Y., and Schanze, K.S. (1994) "On the Accurate Determination of Reaction Rate Constants in Batch Type Solar Photocatalytic Oxidation Facilities," *Journal of Solar Energy Engineering*, 116:1, pp. 19-24.
182. Li, H., Hsieh, C.K., and Goswami, D.Y. (1994) "Source and Sink Method of Solution of Two Dimensional Phase Change for Energy Storage," *Journal of Solar Energy Engineering*, 116:2, pp. 100-106.
183. Wyness, P., Klausner, J.F., Goswami, D.Y., and Schanze, K. (1994) "Performance of Non-Concentrating Solar Photocatalytic Oxidation Reactors Part I: Flat Plate Configurations," *Journal of Solar Energy Engineering*, 116:1, pp. 2-7.
184. Goswami, D.Y., Mathur, G.D., and Kulkarni, S. (1993) "Experimental Investigation of the Performance of a Residential Air Conditioning System with an Evaporative Cooled Condenser," *the Journal of Solar Energy Engineering*, 115:4, pp. 206-212.
185. Goswami, D.Y., et al. (1991) "Analysis of a Geodesic Dome Solar Fruit Dryer," *Drying Technology International Journal*, 9:3, pp. 677-691.
186. Goswami, D.Y. (1991) "Velocity Profiles of Liquid Flow through Circular Tubes and How They Affect Flow Measurement," *Journal of Solar Energy Engineering*, 113:3, pp. 206-210.
187. Goswami, D.Y., Hingorani, S., and Mines, G. (1991) "A Laser Based Technique for Particle Sizing to Study Two Phase Expansion in Turbines," *Journal of Solar Energy Engineering*, 113:3, pp. 211-218.
188. Goswami, D.Y. and Ileslamlou, S. (1990) "Analysis of a Closed Loop Climate Control System Using Underground Air Tunnel," *Journal of Solar Energy Engineering*, 112, pp. 76-81.
189. Goswami, D.Y., Stefanakos, E.K., Hassan, A.Y., and Collis, W.J. (1989). "Effect of row-to-row shading on the output of flat plate south-facing photovoltaic arrays," *Journal of Solar Energy Engineering Transactions of the ASME* 111 (3), pp. 257-259.
190. Goswami, D.Y., Barshooi, M., and Stefanakos, E.K. (1987) "Effect of ground reflectivity and ground offset on the row-to-row shading of flat plate solar arrays," *Solar Engineering*, 2, pp. 720-726.
191. Goswami, D.Y. and Dhaliwal, A.S., (1985), "Heat Transfer Analysis in Environmental Control Using an Underground Air Tunnel," *Journal of Solar Energy Engineering*, 107:2, pp. 141-145.

192. Klett, D.E., Goswami, D.Y. and Saad, M.T. (1984) "Thermal Performance of Submerged Coil Heat Exchangers Used in Solar Energy Storage Tanks," *Journal of Solar Energy Engineering*, 106:3, pp. 373-375.
193. Goswami, D.Y., Klett, D.E., Stefanakos, E.K., (1981), "Seasonal Variations of Atmospheric Clearness Numbers for Use in Solar Radiation Modeling," *Journal of Energy*, 15:3.
194. Goswami, D.Y. and Vachon, R.I. (1977) "Radiative Heat Transfer Analysis Using an Effective Absorptivity of Absorption, Emission, and Scattering," *International Journal of Heat and Mass Transfer*, 20, pp. 1233-1239, November.
195. Goswami, D.Y. et al. (1976) "Mass Injection and Radiative and Convective Heat Transfer in High-Speed Turbulent Flow," *Indian Journal of Technology*, New Delhi, India, 14, pp. 585-590, December.

CONFERENCE PROCEEDINGS (Total: 209)

1. Azad, I., Kaushal, A., Ram, M.K, Goswami, D. Yogi; and Stefanakos, E. " Fabrication of NiO based Metal-insulator-metal Diode using Langmuir-Blodgett Technique for Infrared Detection" *MRS Spring Meeting*, April 17-21, 2017 in Phoenix, Arizona
2. Almatrafi, E., Moloney, F., and Goswami, D. Y., (2017), "Multi-Effects Desalination-Mechanical Vapor Compression Powered by Low Temperature Supercritical Organic Rankine Cycle," *IMECE 2017: Proceedings of the ASME's International Mechanical Engineering Congress and Exposition (IMECE); 2017 Nov 3-9; (Tampa, FL), Volume 6: Energy, ASME*, p. V006T08A020
3. Moloney, F., Almatrafi, E., Goswami, D., and Stefanakos, E. (2017) "Working fluid analysis for supercritical organic ranking cycles for medium geothermal reservoir temperatures", *American Society of Mechanical Engineers, Proceedings of the Power Division POWER 2017 Conference. 2.*
4. Narasimhan, A. K., Wickramaratne, C., Kamal, R., Singh, P., Goswami, D. Yogi (2017) "Integration of Organic Rankine Cycle and Scroll expander models for effective design and performance using organic working fluids" in *Proceedings of the ASME Power and Energy Conference 2017 (Charlotte, No. Carolina)* <http://proceedings.asmedigitalcollection.asme.org/proceeding.aspx?articleid=2652781> pp. 1–10.
5. Azad, I., Ram, M.K., Goswami, D.Y., and Stefanakos, E. (2016) "Au/Cr-ZnO-Ni structured metal-insulator-metal diod fabrication using Langmuir-Blodgett technique for infrared sensing." *Proceedings of the SPIE*, Vol. 9819, 98190E-1. Doi: 10.1117/12.2223836.
6. Moloney, F., Wickramaratne, C., Almatrafi, E., Goswami, D.Y., Stefanakos, E.K., and Guldiken, R. (2016) "Flow conditioning techniques for a bent pipe in a constrained latent heat storage system," in the

- Proceedings of the ASME 2016 International Mechanical Engineering Congress and Exposition (IMECE 2016)*, November 11-17, 2016, Phoenix, Arizona.
7. Wickramaratne, C., Moloney, F., Pirasaci, T., Kamal, R., Goswami, D.Y., Stefanakos, E.K., Dhau, J. (2016) "Experimental study on thermal storage performance of cylindrically encapsulated PCM in a cylindrical storage tank with axial flow," *Proceedings of the ASME 2016 Power and Energy Conference (PowerEnergy 2016)*, June 26-30, Charlotte, North Carolina.
 8. Zeyghami, M., Myers, P.D., Goswami, D.Y., and Stefanakos, E. (2016) "Selective emitters design and optimization for energy harvesting using rectennas," *Proceedings of the ASME 2016 Power and Energy Conference, (PowerEnergy 2016)*, Paper 59363, June 26-30, 2016, Charlotte, North Carolina.
 9. Myers, P.D., Bhardwaj, A., Goswami, D.Y., and Stefanakos, E.K. (2015) "Chloride salt systems for high temperature thermal energy storage: Properties and Applications." In the *Proceedings of the ASME 2015 Power and Energy Conversion Conference (PowerEnergy 2015-49460)*, San Diego, CA, June 28-July 2.
 10. Osterman-Burgess, B.E., Goswami, D.Y., and Stefanakos, E.K. (2015) "Economic performance of thermal energy storage integrated with natural gas combined cycle power plants." In the *Proceedings of the ASME 2015 Power and Energy Conversion Conference (PowerEnergy 2015-49430)*, San Diego, CA, June 28-July 2.
 11. Alam, T., Dhau, J., Goswami, D.Y., Rahman, M., and Stefanakos, E.K. (2014) "Experimental investigation of a packed-bed latent heat thermal storage system with encapsulated phase change material." In the *Proceedings of the ASME 2014 International Mechanical Engineering Congress and Exposition (IMEC-E)*, Montreal, Canada, November. (IMECE2014-38307)
 12. Ayou, D.S., Bruno, J.C., Goswami, D.Y., and Coronas, A. (2014) "Integration of scroll-expanders into combined absorption cycles for power and refrigeration applications," *Proceedings of the International Sorption Heat Pump Conference (ISHPC 2014)*, Washington, D.C., March.
 13. Bellan, S., Rahman, M.M., Gonzalez-Aguilar, J., Goswami, D.Y., Romero, M., and Stefanakos, E.K. (2014) "Numerical modeling of thermal energy storage system." In the *proceedings of the ASME 2014 8th Int'l Conf. on Energy Sustainability (ES 2014) / ASME 2014 12th Int'l Conf. on Fuel Cell Science, Engineering and Technology*, Boston, June 30-July 2. (Volume 2; Code 108824).
 14. Myers, Jr., P.D., Goswami, D.Y., and Stefanakos, E.K. (2014) "Molten salt spectroscopy for quantification of radiative absorption in novel metal chloride-enhanced thermal storage media. In the *Proceedings of the ASME 2014 International Mechanical Engineering Congress and Exposition (IMEC-E)*, Montreal, Canada, November. (IMECE2014-20157)

15. Ramos-Archibold, A., Goswami, D.Y., Rahman, M., Stefanakos, E.K., and Bhardwaj, A. (2014) "Thermal assessment of a latent heat energy storage module using a high temperature phase change material with enhanced radiative properties. In the Proceedings of the ASME 2014 International Mechanical Engineering Congress and Exposition (IMEC-E), Montreal, Canada, November. (IMECE2014-38390)
16. Ramos-Archibold, A., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2014) "High temperature latent heat thermal energy storage module with enhanced combined mode heat transfer," in the proceedings of the ASME 2014 International Mechanical Engineering Congress and Exposition (IMEC-E), Montreal, Canada, November. (IMECE2014-111737)
17. Vidhi, R., Garg, P., Orosz, M.S., Goswami, D.Y., and Kumar, P. (2014) "Ground cooling system for improving the efficiency of low temperature power generation." In the proceedings of the *ASME 2014 8th Int'l Conf. on Energy Sustainability (ES 2014) / ASME 2014 12th Int'l Conf. on Fuel Cell Science, Engineering and Technology*, Boston, June 30-July 2. (Volume 1; Code 108824).
18. Bellan, S., Gonzalez-Aguilar, J., Archibold, A.R., Romero, M., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2013) "Transient numerical analysis of storage tanks based on encapsulated PCMs for heat storage in concentrating solar power plants." In the *Energy Procedia* (Vol. 57) 2014, pp. 672-681, of the 2013 ISES Solar World Congress, Cancun, Mexico, November (SWC 2013 11044).
19. Besarati, S.M., and Goswami, D.Y. (2013) "Analysis of advanced supercritical carbon dioxide power cycles with a bottoming cycle for concentrating solar power applications." In the *Proceedings of the ASME 2013 International Mechanical Engineering Congress and Exposition (IMEC-E 2013)*, San Diego, November. Vol. 6A, Code 105847.
20. Ramos-Archibold, A., Rahman, M.M., Goswami, D.Y., Stefanakos, E.K. (2013), "Numerical solution of heat transfer during solidification of an encapsulated phase change material," Proceedings of the ASME 2013 International Mechanical Engineering Congress and Exposition (IMECE 2013), San Diego, CA., November.
21. Ramos-Archibold, A., Rahman, M.M., Aguilar, J.G., Goswami, D.Y., Stefanakos, E.K., and Romero, M. (2013) "Phase change and heat transfer numerical analysis during solidification on an encapsulated phase change material." *Energy Procedia*, 2013 ISES Solar World Congress, Cancun, Mexico. (November) Code: 110444.
22. Sridharan, P., Archibold, A.R., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2013) "Melting in vertical cylinders during thermal energy storage," Proceedings of the ASME 2013 International Mechanical Engineering Congress and Exposition (IMECE 2013), San Diego, CA., November.
23. Srinivasan, S., Demirocak, E.E., Sharma, P., Goswami, Y., and Stefanakos, E. (2013) "Reversible hydrogen storage characteristics of catalytically enhanced Ca(Li)-nMG-B-N-H system," APS April 2013 Meeting, Denver, CO, April 13016.
24. Trahan, J., Graziani, A., Goswami, D.Y., Stefanakos, E., Jotshi, C., and Goel, N. (2013) "Evaluation of pressure drop and particle sphericity for an air-rock bed thermal energy storage system," *Energy Procedia*, 2013 ISES Solar World Congress, Cancun, Mexico.

25. Udom, I., Goswami, D.Y., Ram, M.K., Stefanakos, E.K., Hepp, A.F., Kulis, M.J., McNatt, J.S., Jaworske, D.A., and Jones, C.A. (2013) "Enhanced TiO₂ photocatalytic processing of organic wastes for green space exploration," 51st AIAA Aerospace Sciences Meeting, Grapevine, TX, January 2013.
26. Vidhi, R., Goswami, D.Y., and Stefanakos, E.K. (2013) "Supercritical Rankine cycle coupled with ground cooling for low temperature power generation," *Energy Procedia*, 2013 ISES Solar World Congress, Cancun, Mexico, September.
27. Vidhi, R., Goswami, D.Y., and Stefanakos, E.K. (2013) "Parametric study of supercritical Rankine cycle and earth-air-heat exchanger for low temperature power generation." *Energy Procedia*, 2013 ISES Solar World Congress, Cancun, Mexico, September. (Vol. 49, pp. 1228-1237).
28. Kuravi, S., Trahan, J., Goswami, Y., Jotshi, C., Stefanakos, E., Goel, N. (2012) "Investigation of a high temperature packed bed sensible heat thermal energy storage system with large sized elements," *Proceedings of the ASME 2012 International Mechanical Engineering Congress and Exposition (IMECE 2012)*, 6, (Parts A and B) pp. 1471-1481, November, 2012, Houston.
29. Pendyala, S., Sridharan, P., Kuravi, S., Jotshi, C.K., Ram, M.K., Rahman, R., Stefanakos, E., Goswami, D.Y. (2012) "Macroencapsulation of sodium nitrate for thermal energy storage in solar thermal power," *Proceedings of the ASME 2012 6th Int'l Conf. on Energy Sustainability and 10th Fuel Cell Science, Engineering and Technology Conf. (ESFuelCell 2012)*, July 23-26, 2012, San Diego, CA.
30. Razykov, T.M., Amin, N., Ergashev, B., Ferekides, C.S., Goswami, D.Y., Hakkulov, M.K., Kouchkarov, K.M., Sopian, K., Sulaiman, M.Y., Alghoul, M.A., and Ullal, H.S. (2012) "Effect of CdCl₂ Treatment on Raman spectra and electrical properties of CdTe films with different compositions fabricated by CMBD," *Proceedings of the 27th European Photovoltaic Solar Energy Conference and Exhibition*, September 2012, Munich, Germany.
31. Pendyala, S., Sridharan, P., Kuravi, S., Jotshi, C.K., Ram, M.K., Rahman, M., Stefanakos, E.K., and Goswami, D.Y. (2012) "Macroencapsulaton of sodium nitrate for thermal energy storage in solar thermal power," *ASME 2012 6th Int'l Conf. on Energy Sustainability and 10th Fuel Cell Science, Engineering and Technology Conf. (ESFuelCell 2012)*, Issue Parts A and B, pp. 595-599. July 23-26, 2012, San Diego, CA.
32. Trahan, J., Kuravi, S., Goswami, D.Y., Rahman, M.M., Stefanakos, E. (2012) "Thermal characterization of high temperature inorganic phase change materials for thermal energy storage applications," *Proceedings of the ASME 2012 6th Int'l Conf. on Energy Sustainability and 10th Fuel Cell Science, Engineering and Technology Conf. (ESFuelCell 2012)*, Issue Parts A and B, pp. 623-630. July 23-26, 2012, San Diego, CA.
33. Vidhi, R., Kuravi, S., Besarati, S., Stefanakos, E.K., Goswami, D.Y., and Sabau, A.S. (2012) "Performance Of Working Fluids For Power Generation In A Supercritical Organic Rankine Cycle" in the *Proceedings of the ASME 2012 6th International Conference on Energy Sustainability & 10th Fuel Cell Science, Engineering and Technology Conference ESFuelCell2012* July 23-26, 2012, Parts A and B, pp. 1273-1279, San Diego, CA.

34. Ramos, A.R., Asselineau, C.A., Gonzalez-Aguilar, J., Rahman, M.M., Romero, M., Goswami, D.Y., and Stefanakos, E.K. (2012) Transient Numerical Analysis of PCM-Contained spherical capsules for heat storage in concentrating solar power plants," Proceedings of the 12th International Conference on Energy Storage (INNOSTOCK 2012), Lleida, Spain, May.
35. Ramos, A., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K. (2012) "Parametric investigation of the melting solidification process in an encapsulated spherical container," Proceedings of the ASME 2012 6th International Conference on Energy Sustainability, Issue Parts A and B, pp. 573-584. San Diego, July.
36. Abutayeh, M., Goswami, D.Y., and Stefanakos, E. (2011) "Solar thermal power plant simulation," in the *Proceedings of the AIChE 2011 National Meeting*, Minneapolis, MN, October, pp. 10p.
37. Balakrishnan, N., Joseph, B., Bhethanabotla, V.R., Goswami, Y.D. (2011). "Influence of pt promoter on Fischer-Tropsch initiation pathways over cobalt catalysts" in the *conference proceedings of the 11th AIChE Annual Meeting*.
38. Chen, H., M.M. Rahman, D.Y. Goswami, E.K. Stefanakos (2011) "Optimizing energy conversion using organic Rankine cycles and supercritical Rankine cycles," in the *Proceedings of the ASME 5th International Conference on Energy Sustainability (ESFuelCell 2011)*, Parts A, B, and C, pp. 1265-1272; Washington, D.C., August.
39. Demirkaya, G., Besarati, S.M., Padilla, R.V., R., Ramos, A.A., Rahman, M.M., Goswami, D.Y., and Stefanaksos, E. (2011) "Multi-Objective Optimization of a Combined Power and Cooling Cycle for Low-Grade and Mid-Grade Heat Sources," , in the *Proceedings of the ASME 5th International Conference on Energy Sustainability (ESFuelCell 2011)*, Parts A, B, and C, pp. 351-360; Washington, D.C., August.
40. Demirocak, D.E., Kuravi, S., Ram, M.K., Jotshi, C.K., Kumar, A.D., Goswami, Y., and Stefanakos, E.K. (2011) "Surfactant enriched polyaniline for hydrogen storage," in the *Proceedings of the ASME 5th International Conference on Energy Sustainability (ESFuelCell 2011)*, Parts A, B, and C, pp. xxxx, August, Washington, DC
41. Demirocak, D.E., Kuravi, S., Ram, J.K., Jotshi, C.K., Srinivasan, S., Kumar, A., Goswami, Y., and Stefanakos, E. (2011) "Investigation of polyaniline nanocomposites and cross-linked polyaniline for hydrogen storage," Proceedings of the 2011 Advances in Materials Processing Technologies (AMPT) Conference, July 2011, Istanbul, Turkey.
42. Koiry, S.P., Krishnan, S., Ratnadurai, R., Goswami, D.Y., and Bhansali, S. (2011). "Controlled ex-situ doping of electrochemically polymerized 5,10,15,20 tetrakis (4-hydroxyphenyl)-porpyrin (THPP) for hybrid switching circuits," in the Proceedings of the 220th ECS Meeting.
43. Li, C., Abutayeh, M., Goswami, Y., and Stefanakos, E. (2011) "Seawater Desalination using Solar Energy, Proceedings of the Florida Section of the American Water Works Association (AWWA) Regional Conference, Orlando, November.

44. Padilla, R. V., Ramos, A.A., Demirkaya, G., Besarati, S., Goswami, D.Y., Rahman, M.M., and Stefanakos, E.K. (2011) "Performance Analysis of a Rankine-Goswami Combined Cycle," *Proceedings of the ASME 5th International Conference on Energy Sustainability (ESFuelCell 2011)*, Parts A, B, and C, pp. 385-393, August, Washington, DC.
45. Ramos, A.A., A.R., Kuravi, S., Rahman, M.M., Goswami, D.Y., Stefanakos, E.K., Gonzalez-Aguilar, J., and Romero, M. (2011) "Parametric study of a phase change thermal storage module," in the Proceedings of the 30th ISES Solar World Congress, vol. 6, pp. 4797-4805, Kassel, Germany(Aug-Sept.).
46. Russell, S., Goswami, Y., Weston, M., and Doll, M. (2011) "Flex House," *Proceedings of the ASME 5th International Conference on Energy Sustainability (ESFuelCell 2011)*, Parts A, B, and C, pp. 213-224, August, Washington, DC.
47. Vidhi, R., Goswami, D.Y., Chen, H., Stefanakos, E., and Kuravi, S. (2011) "Study of supercritical carbon dioxide power cycle for low grade heat conversion," Proceedings of the Supercritical CO₂ Power Cycle Symposium, Denver, Colorado, May.
48. Zeeshan Gardezi, S.A., Joseph, B., Goswami, D.Y., and Wolan, J. (2011) "Modeling the start-up phase of Fischer Tropsch synthesis in a fixed bed reactor: Effect of pore filling and heat transfer through the catalyst bed." In the *Proceedings of the 11th AIChE Spring Meeting and the 7th Global Congress on Process Safety*, March, Chicago, vol. 2011, pp. 1P.
49. Abutayeh, M., Goswami, D.Y. and Stefanakos, E. (2010) "Seawater desalination using solar energy," in the Proceedings of the 2010 Florida Section of AWWA Regional Conference, Orlando, November.
50. Abutayeh, M. and Goswami, D.Y. (2010) "Experimental Simulation of Solar Flash Desalination," ASME International Mechanical Engineering Congress and Exposition (IMEC-E), *Proceedings of the 2009 ASME International Mechanical Engineering Congress and Exposition*, Vol. 8, pp. 95-102. Lake Buena Vista, Florida, November.
51. Abutayeh, M., Goswami, D.Y., and Stefanakos, E.K. (2010) "Sustainable desalination process simulation," *Proceedings of the ASME 2010 International Mechanical Engineering Congress and Exposition (IMECE 2010)*, Vancouver, British Columbia, Canada, November, Vol. 5, Issue Parts A and B, pp. 1397-1403.
52. Bhansali, S. Krishnan, S. Stefanakos, E. and Goswami, D.Y. (2010) "Tunnel junction-based rectenna: A key to ultrahigh efficiency solar/thermal energy conversion," In the *AIP Proceedings of the International Conference on Physics of Emerging Functional Materials (PEFM-2010)*, Mumbai, (India), Sep 22–24, Vol. 1313, pp. 79-83.
53. Boone, J., Krishnan, S., Stefanakos, E., Goswami, D.Y., and Bhansali, S. (2010) "Design and Simulation of Scalable Dipole fed slot antenna," *WAMICON 2010*, Melbourne Beach Florida, 11-13 April.

54. Celestin, M., Krishnan, S., Bhansali, S., Goswami, D.Y., and Stefanakos, S. (2010) "Electromagnetic Energy Conversion Using Self-Assembled Alkanethiol Based Tunnel Diodes," *25th European Photovoltaic Solar Energy Conference*, Valencia, Spain, September.
55. Celestin, M., Krishnan, S., Goswami, D.Y., Stefanakos, E., and Bhansali, S. (2010) "Tunnel Diodes Fabricated For Rectenna Applications Using Self-Assembled Nanodielectrics," In the *Procedia Engineering*, *24th Eurosensors XXIV*, Vol. 5, pp. 1055-1058; Linz, Austria, Sept.
56. Chen, H. and Goswami D.Y. (2010) "Converting Low-Grade heat into Power using a Supercritical Rankine cycle with Zeotropic Mixture Working Fluid," in the *Proceedings of ASME 2010 4th International Conference on Energy Sustainability (ES 2010)*, Vol. 1, pp. 469-478, Phoenix, Arizona May.
57. D'Angelo, A., Kuravi, S., Niemann, M., Goswami, D.Y., Stefanakos, E.K., and Srinivasan, S.S. (2010). "Effect of Nb₂O₅ on the Hydrogen Storage Characteristics of Li-nMg-B-N-H Complex Hydrides," in the proceedings of the International Conference on Engineering and Meta-Engineering (icEME 2010), Orlando, April.
58. Gilbert, R., Barger, M., Anderson, T., Awtonomow, S., and Goswami, Y. (2010) "Implementing Engineering and Technical Education to Support Florida's 21st Century Energy Sector" in the *Proceedings of the American Society of Engineering Education 2010 International Conference*, Louisville, KY, June, 9 p.
59. Kuravi, S., Trahan, J., Rahman, M.M., Goswami, D.Y., and Stefanakos, E.K., (2010) "Analysis of Transient Heat Transfer in a Thermal Energy Storage Module," *Proceedings of the ASME 2010 International Mechanical Engineering Congress and Exposition (IMECE 2010)*, Vancouver, British Columbia, Canada, November, Vol. 5, Issue Parts A and B, pp. 1251-1258.
60. Li, C., Srinivasan, S.S., Kislov, N., Schmidt, M., Stefanakos, E.K., and Goswami, D.Y. (2010) "Enhancement of TiPO₂ photocatalytic activity by N-doping using the gas phase impregnation method in the *Proceedings of the Materials Research Society Symposium*, 2009 MRS Fall Meeting, Boston, Vol. 1217, pp. 215-222. November-December.
61. Li, C., Srinivasan, Algarin, P., Kislov N., Phani, A., Stefanakos, E., and Goswami, Y. (2010) "Increasing the photocatalytic activity by mechano-chemically milling On zn-doped TiO₂," in the *Proceedings of the Materials Research Society Symposium*, 2009 MRS Fall Meeting, Boston, Vol. 1217, pp. 169-189. November-December.
62. Niemann, M.U., Srinivasan, S.S., Kumar A., Stefanakos, E.K., Goswamio, D.Y., and McGrath, K. (2010) "Processing analysis of the ternary LiNH₂-MgH₂-LiBH₄ system for hydrogen storate) in the *Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition*, 6, pp. 35-39.
63. Niemann, M.U., Srinivasan, S.S., Phani, A.R., Kumar, A., Goswamio, D. Y., Stefanakos, E.K. (2010) "Hydrogen sorption behavior in conducting polymer nanostructures," in the *Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition*, 6, pp. 7-9.

64. Padilla, R.V., Demirkaya, G., Goswami, Y., and Stefanakos, E.K. (2010) "Parametric study of a combined power and cooling thermodynamic cycle for low temperature sources," in the Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition, 6, pp. 165-174.
65. Ratnadurai, R., Krishnan, S., Stefanakos, E., Goswami, D.Y. and Bhansali, S. (2010) "Nanomanufacturability of Thin film MIM diodes," In the AIP Conf. Proc., International Conference on Physics of Emerging Functional Materials (PEFM-2010), Mumbai, India, Sep 22-24, Vol. 1313, pp. 403 - 405.
66. Ratnadurai, R., Krishnan, S., Stefanakos, E., Goswami, D.Y., and Bhansali, S. (2010) "Effects of Dielectric Deposition on the Electrical Characteristics of MIM Tunnel Junctions," In the *Procedia Engineering*, 24th Euroensors XXIV, Vol. 5, pp. 1059-1062; Linz, Austria, Sep 5-8.
67. Srinivasan, S.S., Kislov, N., Emirov, Yu., Goswami, D.Y., and Stefanakos, E.K. (2010) "Investigation of ZnFe₂O₄ nanoparticles prepared by high energy milling," in the Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition, 12 (Part B), pp. 843-847.
68. Abutayeh, M. and Goswami, D.Y. (2009) Passive Vacuum Solar Flash Desalination, in the *Proceedings of the 2008 AIChE Annual Meeting (AIChE 100)*, Philadelphia, November.
69. Abutayeh, M. and Goswami, Y. (2009) "Solar Flash Desalination under Hydrostatically Sustained Vacuum" in the *Proceedings of the ASME 2008 2nd International Conference on Energy Sustainability*, Jacksonville, FL, August 2008; Vol. 2, 2009, pp. 639-647; Code 76968.
70. Chen, H., and Goswami, Y. (2009) "Simulation of a Thermodynamic cycle with Organic Absorbents and CO₂ as Working fluid," in the *Proceedings of the 2008 AIChE Annual Meeting (AIChE 100)*, Philadelphia, November.
71. Chen, H. and Goswami D.Y. (2009) "The conversion of moderate temperature heat into power and refrigeration with CO₂ and organic binary working fluid, in the Proceedings of biennial international student conference of Education without Borders", Dubai, UAE, March-April.
72. Choudhury, P., Bhethanabotla, V.R., Goswami, Y., Srinivasan, S.S., and Stefanakos, E. (2009) "LiMn(BH₄)₃ for on-board hydrogen storage," in the *Proceedings of the 2009 AIChE Annual Meeting*, Nashville, TN November, 2009, 1 p.
73. Krishnan, S., Bhansali, S., Stefanakos, E., Goswami, Y. (2009). "Thin Film Metal-Insulator-Metal Junction for Millimeter Wave detection," in the *Procedia Chemistry of Euroensors XXIII*, Vol. 1, Issue 1, pp. 409-412, Lausanne, Switzerland.
74. Lee, M.S., Goswami, Y., Kothurkar, N., and Stefanakos, E.K. (2009) "Immobilization of Calcium Oxide Absorbent on a Fibrous Alumina Mat for High Temperature Carbon Dioxide Capture" in the *Proceedings of the ASME 2008 2nd International Conference on Energy Sustainability*, Jacksonville, FL, August 2008; Vol. 2, 2009, pp. 263-267; Code 76968.

75. Li, C., Srinivasan, S., Kislov, N., Schmidt, M., Stefanakos, L., and Goswami, Y. (2009) "Enhancement of TiO₂ Photocatalytic Activity by N-Doping using the Gas Phase Impregnation Method," in the proceedings of the 2009 MRS Fall Meeting, Boston, November-December.
76. Li, C., Srinivasan, S., Kislov, N., Phani, A., Stefanakos, L., and Goswami, Y. (2009). "Increasing the Photocatalytic Activity by Mechano-chemically Milling on Zn-doped TiO₂" in the proceedings of the 2009 MRS Fall Meeting, Boston, November-December.
77. Niemann, M.U., Srinivasan, S.S., Kumar, A., Stefanakos, E.K., Goswami, D.Y., and McGrath, K. (2009). "Processing Analysis of the Ternary LiNH₂-MgH₂-OLiBh₄ System for Hydrogen Storage, Proceedings of the ASME 2009 International Mechanical Engineering Congress and Exposition (IMECE 2009), Lake Buena Vista FL, November.
78. Niemann, M., Srinivasan, S., McGrath, K., Kumar, A., Goswami, Y. and Stefanakos, E. (2009) "Processing and Characterization of New Multinary Li-Mg-B-N-H Complexed Hydrides for Hydrogen Storage" (IMECE 2009-11520), in the Proceedings of the 2009 ASME International Mechanical Engineering Congress and Exposition, Lake Buena Vista, Florida, November.
79. Niemann, M.U., Srinivasan, S.S., McGrath, K., Goswami, D.Y., Stefanakos, E.K., and Kumar, A. (2009). "Electrospun Polyaniline Nanofibers for Hydrogen Storage," in the conference record of the Hydrogen Technologies Convention 2009, New Delhi, India, August.
80. Niemann, M.U., Srinivasan, S.S., McGrath, K., Goswami, D.Y., Stefanakos, E.K., and Kumar, A. (2009). "Effects of nano Additives on Hydrogen Storage Behavior of the Multinary Hydride Li-Mg-B-N-H," in the conference record of the Hydrogen Technologies Convention 2009, New Delhi, India, August.
81. Niemann, M., Srinivasan, S., Phani, A., Kumar, A., Goswami, Y. and Stefanakos, E. (2009) "Hydrogen Sorption Behavior in Conducting Polymer Nanostructures" (IMECE 2009-11554), in the Proceedings of the 2009 ASME International Mechanical Engineering Congress and Exposition, Lake Buena Vista, Florida, November.
82. Srinivasan, S., Kislov, N., Emirov, Y., Stefanakos, E. and Goswami, Y. (2009) "Investigation of ZnFe₂O₄ nanoparticles Prepared by High Energy Milling," (IMECE 2009-11573), in the *Proceedings of the 2009 ASME International Mechanical Engineering Congress and Exposition*, Vol. 12, Issue Part B, 2010, pp. 843-847. Lake Buena Vista, Florida, November.
83. Srinivasan, S.S., Niemann, M.U., McGrath, K., Goswami, D.Y., Stefanakos, E.K. (2009). "Reversible Hydrogen Storage in Multinary Complex Hydrides," in the conference record of the Hydrogen Technologies Convention 2009, New Delhi, India, August.
84. Padilla, R.V., R., Demirkaya, G., and Goswami, D.Y. (2009) "Parametric Study of a Combined Power and Cooling Thermodynamic Cycle for Low Temperature Heat Sources," in the Proceedings of the 2009 ASME International Mechanical Engineering Congress and Exposition Conference (IMECE-E 2009), Lake Buena Vista, FL, November.

-
85. Abutayeh, M. and Goswami, Y. (2008) "Passive vacuum solar flash desalination," in the *Proceedings of the AIChE National meeting*, Philadelphia, November.
86. Chen, H. and Goswami D.Y. (2008) "The conversion of moderate temperature heat into power and refrigeration," in the *Proceedings of the Annual Meeting of the American Institute of Chemical Engineers*, Philadelphia, November.
87. Niemann, M.U., Srinivasan, S.S., McGrath, K., Kumar, A., Goswami, D.Y., Stefanakos, E.K. (2008) "Nanocrystalline Effects on the Reversible Hydrogen Storage Characteristics of Complex Hydrides" In the *Proceedings of the American Ceramic Society (ACer) - Materials Innovation in an Emerging Hydrogen Economy*, February.
88. Niemann, M.U., Srinivasan, S.S., Phani, A.R., Kumar, A., Goswami, D.Y., and Stefanakos, E.K. (2008). "Polyaniline nanostructures for hydrogen storage applications," *Materials Research Society Symposium Proceedings*, 1134, September, pp. 37-42.
89. Lee, M.S., Goswami, D.Y., Kothurkar, N. and Stefanakos, E.K. (2007) "Fabrication of porous calcium oxide film for UT-3 thermochemical hydrogen production cycle," in the *Proceedings of the ASME Energy Sustainability 2007*, pp. 25-29, June 27-30, Long Beach, California.
90. Srinivasan, S., Escobar, D., Jurczyk, M. Choudhury, P., Bhethanabotla, V., Smith, M., Goswami, D. Y. and Stefanakos, E. K. (2007) "Hydrogen Storage in Nanocatalyzed $Zn(BH_4)_2$ " in the *Proceedings of the 2nd International Hydrogen Energy Congress and Exhibition IHEC 2007*, Istanbul, Turkey, July.
91. Srinivasan, S., Escobar, D., Rivera, L., Jurczyk, M., Choudhury, P., Goswami, D. Y. and Stefanakos, E. K. (2007) "Effects of Nanocatalyst Doping on the Hydrogen Storage Behavior of New Complex Borohydrides," in the *Proceedings of the ZERO REGIO Workshop*, Italy.
92. Srinivasan, S., Jurczyk, M., Ramos, N. Goswami, D. Y. and Stefanakos, E. K. (2007) "Complex Hydrides for Hydrogen Storage, in the *Proceedings of the MRS Fall Meeting*, Proceedings, Boston.
93. Srinivasan, S., Kislov, N., Escobar, D., Choudhury, P., Goswami, D. Y., Stefanakos, E. K. and Emirov, Y. (2007) "Nanomaterials for Energy Storage and Environment Detoxification Applications," in the *Proceedings of the Symposium on Recent Developments in Nanomaterials*, BHU, Varanasi, India, March.
94. Lee, Man Su, Goswami, D.Y., Hettinger, B. and Vijayaraghavan, S. (2006) "Preparation and Characteristics of Calcium Oxide Pellets for UT-3 Thermochemical Cycle," in the *Proceedings of the of 2006 ASME International Mechanical Engineering Congress and Exposition*, November, Chicago.

-
95. Srinivasan, S.S., Dumbriş, S., McElwee-White, L., Stefanakos, E.K. and Goswami, D.Y. (2006) "Thermal and volumetric studies of complex chemical hydrides: Li-modified/Ti-doped Mg_2FeH_6 , sonicated $LiNH_2/LiH$ and Zn- mixed $NaBH_4$," *Materials Research Society Symposium Proceedings*, Volume 885 (Hydrogen Cycle: Generation, Storage and Fuel Cells), 169-174.
96. Srinivasan, S.S., Rivera, L., Stefanakos, E.K. and Goswami, D.Y. (2006) "Mechano-chemical synthesis and characterization of new complex hydrides for hydrogen storage," in *the Materials Research Society Symposium Proceedings*, Vol. 927, 2006, pp. 15-20.
97. Srinivasan, S.S., Stefanakos, E.K. and Goswami, D.Y. (2006) "New transition metal assisted new complex hydrides for hydrogen storage," in the Proceedings of the 16th World Hydrogen Energy Conference 2006, Vol 3, 2006, pp. 2658-2663, Lyon, France, June.
98. Buckle, K., Stefanakos, E., Weller, T., Bhansali, S., Goswami, Y., Sarehraz, M., and Krishnan, S. (2005). "Rectenna for Solar Energy Collection," NASA Space Power Conference, Redondo Beach, CA.
99. Ingley, H.A., O'Sullivan, G.M. and Goswami, D.Y. (2005) "Evaluation of the Effects of Air Contaminants on PEM Fuel Cell Performance," *Proceedings of the ISES Solar World Congress*, August, Orlando.
100. Ingley, H.A., Reed, R, and Goswami, D.Y. (2005) "Scroll Expander Applied to an Ammonia/Water Combined Cycle System for Hydrogen Production," *Proceedings of the ISES Solar World Congress*, August, Orlando.
101. Mahishi, M.R., Sadrameli, M.S., Vijayaraghavan, S. and Goswami, D.Y. (2005), "Hydrogen Production from Ethanol: A Thermodynamic Analysis of a Novel Sorbent Enhanced Gasification Process. American Society of Mechanical Engineers, Advanced Energy Systems (publication) "AES" vol. 45, pp 455-463.
102. Mahishi, M.R., Vijayaraghavan, S., Deshpande, D. and Goswami, D.Y. (2005) "A Thermodynamic Analysis of Hydrogen Production by Gasification of Biomass", *Proceedings of the ISES Solar World Congress*, August 6-12, Orlando, FL.
103. Martin, C., Sadrameli, S.M. and Goswami, D.Y. (2005) "Comparison of Optimum Operating conditions for a Combined Power and Cooling Thermodynamic Cycle," *Proceedings of the ISES Solar World Congress*, August, Orlando.
104. Razykov, T.M., Acher, R.D., Anderson, T.J., Craciun, V., Crisalle, O. D., Goswami, D.Y., Kouchkarov, K., Li, S.S. and Vijayaraghavan, S. (2005) Characterization of CdTe Films of Different Compositions Fabricated by CMBD. In: *Proceedings of the 31st IEEE Photovoltaic Specialists Conference*, Lake Buena Vista, FL, pp. 484-486.
105. Sarehraz, M., Buckle, K., Weller, T., Stefanakos, E., Bhansali, S., Goswami, Y. and Subramanian, K. (2005) "Rectenna developments for solar energy collection." In: *Photovoltaic Specialists Conference*, 2005. Conference Record of the 31st IEEE, Orlando, pp. 78-81.

106. Srinivasan, S.S., Kislov, N., Wade, J., Smith, M.T., Stefanakos, E.K., and Goswami, Y. (2005). "Mechanochemical synthesis, structural characterization and visible light photocatalysis of TiO₂/ZnFe₂O₄ nanocomposites," in the *Materials Research Society Symposium Proceedings*, 900, pp. 307-315.
107. Srinivasan, S.S., Smith, M.T., Deshpande, D., Stefanakos, E.K., Goswami, D.Y., Jurczyk, M., and Kumar, A. (2005) "Synthesis and characterization of nanoscale transition metal complex for hydrogen storage," *Materials Research Society Symposium Proceedings* Vol. 884E, August, pp. 25-30, GG4.2.1-GG4.2.6.
108. Goel, N., and Goswami, D. Y. (2004) "A compact falling absorber," *Proceedings of IMEC 2004, ASME International Mechanical Engineering Congress and R&D Expo, Anaheim, CA, November 13-19, AES*, pp. 309-320.
109. Goswami, D.Y. (2004) "Solar Energy Research and Education at the UF Solar Energy & Energy Conversion Lab," *Proceedings of the ASES Solar 2004 Conference, Portland, OR*.
110. Martin, C.L., Goswami, D.Y. (2004) Analysis of Experimental Power and Cooling Production in a Combined Power and Cooling Cycle. In: Rivero, R., Monroy, L., Pulido, R., Tsatsaronis, G. (Eds.), *Proceedings of ECOS 2004 conference: "Energy-Efficient, Cost-Effective and Environmentally-Sustainable Systems and Processes," Guanajuata, Mexico, vol. 3, pp. 1235-1244 (ISBN 968-489-027-3)*.
111. Martin, C.L., Goswami, D.Y. (2004) Experimental Verification of a Combined rdynamic Cycle. In: Bingham, C., Agami Reddy, T. (Eds.), *Proceedings of American Solar Energy Society's SOLAR 2004, "A Solar Harvest: Growing Opportunities," Portland, OR*.
112. Mirabal, S. T., Ingley, H. A., Goel, N., and Goswami, D.Y. (2004) "Utilization of domestic fuels for hydrogen production," *International conference on Co-Utilization of Domestic Fuels, Gainesville, FL, February 5 - 6*.
113. Al-Kharabsheh, S. and Goswami, D.Y. (2003) "Theoretical Analysis of a Water Desalination System Using Low Grade Solar Heat," *Proceedings of the 2003 (ASME) International Solar Energy Conference, Hawaii Island, Hawaii, March 15-18, pp. 279-285*.
114. Goswami, D.Y., Mirabal, S.T., Goel, N., and Ingley, H.A. (2003) "A Review of Hydrogen Production Technologies," *Proceedings of the First International Conference on Fuel Cell Science, Engineering and Technology, Rochester, NY, April 21-23, pp. 61-74*.
115. Mirabal, S.T. and Goswami, D.Y., Goel, N. and Ingley, H.A.(2003) "Hydrogen Production," *Proceedings of the ASES Solar 2003 Conference, Austin, TX, June 21-23*.
116. Tamm, G.O. and Goswami, D.Y. (2003) Experimental Investigation of an Improved Power and Cooling Thermodynamic Cycle for Low Temperature Heat Sources. In: *Proceedings of the ISES 2003 Solar World Congress, Goteborg, Sweden*.

117. Tamm, G., Vijayaraghavan, S. and Goswami, D.Y. (2003) "An Ammonia-Based Combined Power and Cooling Cycle for Low Temperature Heat Sources," *International Joint Power Generation Conference*, Atlanta, June, pp. 979-985.
118. Vijayaraghavan, S. and Goswami, D.Y. (2003) "Improved Configuration of a Novel Thermodynamic Power and Cooling Cycle," *Proceedings of the ASES Solar 2003 Conference*, June 21-26, Austin, TX.
119. Vijayaraghavan, S. and Goswami, D.Y. (2003) "Thermodynamic Studies on Alternate Binary Working Fluid Combinations for a Combined Power and Cooling Cycle," *Proceedings of the 2003 (ISEC) International Solar Energy Conference*, Hawaii Island, Hawaii, March 15-18.
120. Goswami, D.Y., Tamm, G., and Vijayaraghavan, S. (2002) "A new combined power and cooling cycle for low temperature heat sources." *International Joint Power Generation Conference*, paper IJPGC2003-40157. Atlanta, June.
121. Goswami, D.Y., Tamm, G., S. Lu, and Hasan, A.A. (2002) "A Novel Combined Power and Cooling Thermodynamic Cycle for Low Temperature Heat Sources, Part I: Theoretical Investigation." *Solar Engineering 2002, Proceedings of the ASME International Solar Engineering Conference*, pp. 31-38.
122. Goswami, D.Y., Tamm, G., S. Lu, and Hasan, A.A. (2002) "A Novel Combined Power and Cooling Thermodynamic Cycle for Low Temperature Heat Sources - Part II: Experimental Investigation." *Solar Engineering 2002, Proceedings of the ASME International Solar Engineering Conference*, pp. 39-46.
123. Hall, T., Wu, C.Y., and Goswami, D.Y. (2002) "A Magnetically Fluidized Photocatalytic Reactor System for Water Purification in Space Applications." *Proceedings of the 2002 ASES Solar Conference*, Reno, NV, June, pp. 267-276.
124. Lu, S. Goswami, D.Y. (2002) "Optimization of a Novel Combined Power/Refrigeration Thermodynamic Cycle" *Solar Engineering 2002, Proceedings of the ASME International Solar Engineering Conference*, pp. 75-82.
125. Lu, S. and Goswami, D.Y. (2002) "Theoretical Analysis of Ammonia-Based Combined Power/Refrigeration Cycle at Low Refrigeration Temperatures," *Solar Engineering 2002, Proceedings of the ASME International Solar Engineering Conference*, pp. 117-125.
126. Vijayaraghavan, S. and Goswami, D.Y. (2002) "Efficiency Definitions for a Combined Power and Cooling Cycle," *Proceedings of the ASME Symposium on Thermodynamics and Design, Analysis and Improvement of Energy Systems*, ASME International Mechanical Engineering Congress and Exposition, AES Vol. 42, November, New Orleans, LA.
127. Vijayaraghavan, S. and Goswami, D.Y. (2002) "Photocatalytic Oxidation of Toluene in Water from an Algae Pond with High Dissolved Oxygen Content" *Solar Engineering 2002, Proceedings of the ASME International Solar Engineering Conference*, pp. 261-268.

128. Erickson, P.A. and Goswami, D.Y. (2001) "Hydrogen from Solar Energy: An Overview of Theory and Current Technological Status," Proceedings of the 36th (IECEC) Intersociety Energy Conversion Engineering Conference 2001, Savannah, GA, July 29-August 2.
129. Goswami, D.Y. (2001) "Present Status of Solar Energy Education," 2001, Proceedings of the 2001 American Society of Engineering Education Annual Conference, Albuquerque, NM, June.
130. Goswami, D.Y., Vijayaraghavan, S., Lu, S. and Tamm, G. (2001) "New and Emerging Developments in Solar Energy," *Proceedings of the World Solar Forum*, International Solar Energy Society (ISES), Adelaide Australia, November.
131. Hasan, A. and Goswami, D.Y. (2001) "Second Law Analysis of Ammonia-Water Power and Refrigeration Thermodynamic Cycle Driven by a Solar Heat Source," Proceedings of the ISES Solar World Congress, Adelaide, Australia, November.
132. Ogoli, D.M. and Goswami, D.Y. (2001) "Applicability of Stand-Alone Building Integrated Photovoltaic Home Systems in Kenya," *Solar Engineering 2001*, Proceedings of the ASME International Solar Energy Conference, Washington, D.C., pp. 305-312, April,
133. Mago, P. and Goswami, D.Y. (2001) "A Simulation Model and Software for the Performance Simulation of a Hybrid Liquid Desiccant Cooling System," Proceedings of the American Solar Energy Society's Solar Forum 2001, Washington, D.C, pp. 229-235, April.
134. Mago, P. and Goswami, D.Y. (2001) "A Study of the Performance of a Hybrid Liquid Desiccant Cooling System Using Lithium Chloride." *Solar Engineering 2002*, Proceedings of the ASME International Solar Engineering Conference, pp. 133-139.
135. Tamm, G., Goswami, D.Y., Lu, S. and Hasan, A.A. (2001) "Theoretical and Experimental Investigation of an Ammonia-Water Power and Refrigeration Thermodynamic Cycle," Proceedings of the ISES Solar World Congress, Adelaide, Australia, November.
136. Hingorani, S., Greist, H., Goswami, T. and Goswami, D.Y. (2000) "Clean-up of Contaminated Indoor Air Using Photocatalytic Technology," Proceedings of the Symposium on Improving Building Systems in Hot and Humid Climates, San Antonio, TX, May.
137. Fumo, N. and Goswami, D.Y. (2000) "Study of an Aqueous Lithium Chloride Desiccant System, Part I: Air Dehumidification." Proceedings of the Millennium Solar Forum 2000, Mexico City, Mexico, pp. 307-318, September.
138. Fumo, N. and Goswami, D.Y. (2000) "Study of an Aqueous Lithium Chloride Desiccant System, Part II: Desiccant Regeneration." Proceedings of the Millennium Solar Forum 2000, Mexico City, pp. 313-318, September.

139. Goswami, D.Y. (2000) "Present Status of Solar Energy Education," Proceedings of the International Symposium for Solar Energy Education (ISREE) 2000 Conference, Oslo, Norway, June.
140. Cooper, A.T. and Goswami, D.Y. (1999) "Evaluation of Solar Photosensitization of Benzene, Toluene and *Escherichia Coli* with Methylene Blue and Rose Bengal," Renewable and Advanced Energy Systems for the 21st Century, Proceedings of the 1999 ASME Conference, Maui, Hawaii, April.
141. Goswami, D.Y. (1999) "Recent Developments in Photocatalytic Detoxification and Disinfection of Water and Air," Proceedings of the ISES 1999 Solar World Congress, Jerusalem, Israel, July.
142. Goswami, D.Y. (1999) "Present Status and Future Directions of Solar Power Technologies," Proceedings of the ISES 1999 Solar World Congress, Jerusalem, Israel, July.
143. Cooper, A.T. and Goswami, D.Y. (1998) "A Survey of Solar Based Drinking Water Treatment," Solar Engineering 1998, Proceedings of the ASME International Solar Energy Conference, Albuquerque, NM, pp. 265-275, June.
144. Beaudreau, C., Hingorani, S.K., Goswami, T.K. and Goswami, D.Y. (1998) "Destruction of Dust Mite Allergens using Phototech[®] Photocatalytic Technology for Disinfection of Indoor Air," Proceedings of the Pan-American Workshop on Commercialization of Advanced Oxidation Technologies, London, Ontario, Canada, June 1998.
145. Davanagere, B.S., Sherif, S.A. and Goswami, D.Y. (1998) "A Feasibility Study of a Solar Desiccant Air Conditioning System Part II: Transient Simulation and Economics of a Solar-Assisted Desiccant Cooling System," *Developments in Theoretical and Applied Mechanics* Vol. XIX, Proceedings of the 19th SECTAM, pp. 660-671.
146. Goswami, D.Y. and Xu, F. (1998) "Analysis of a New Thermodynamic Cycle for Combined Power and Cooling using Low and Mid Temperature Solar Collectors," *Solar Engineering 1998*, Proceedings of the ASME International Solar Energy Conference, Albuquerque, NM, pp. 111-120, June.
147. Öberg, V. and Goswami, D.Y. (1998) "Experimental Study of the Heat and Mass Transfer in a Packed Bed Liquid Desiccant Air Dehumidifier," *Solar Engineering 1998*, Proceedings of the ASME International Solar Energy Conference, Albuquerque, NM, pp. 155-166, June.
148. Öberg, V. and Goswami, D.Y. (1998) "Performance of Simulation of Solar Hybrid Liquid Desiccant Cooling for Ventilation Air Preconditioning," *Solar Engineering 1998*, Proceedings of the ASME International Solar Energy Conference, Albuquerque, NM, pp. 176-182, June.
149. Srinivasan, M. and Goswami, D.Y., Klausner, J.F. and Jotshi, C.K. (1998) "Design, Construction and Testing of a Solar Photocatalytic Facility for Treatment of BTEX Contaminated Groundwater," *Solar Engineering*

- 1998, Proceedings of the ASME International Solar Energy Conference, Albuquerque, NM, pp. 299-304, June.
150. Arzano, L. and Goswami, D.Y. (1997) "Performance Analysis of a Closed Loop Underground Air Tunnel for Residential Housing in a Hot and Humid Climate," Proceedings of the ISES 1997 Solar World Congress (Vol. 4, pp. 239-302), Taejon, Korea, August.
151. Goswami, D.Y., Ek, G., Leung, M., Jotshi, C.K., Sherif, S.A. and Colacino, F. (1997) "Effect of Refrigerant Charge on the Performance of Air Conditioning Systems," Proceedings of the 32nd Intersociety Energy Conversion Engineering Conference, Vol. 3, pp. 1635-1640, August.
152. Goswami, D.Y., Hingorani, S., Greist, H. Goswami, D.Y. and Block, S.S. (1997) "Photocatalytic System to Destroy Bioaerosols in Air," Proceedings of the 1997 TiO₂ Conference, Orlando, FL.
153. Srinivasan, M., Klausner, J.F., Jotshi, C.K. and Goswami, D.Y. (1997) "Solar Photocatalytic Treatment of BTEX Contaminated Groundwater," Proceedings of the ISES 1997 Solar World Congress, August.
154. Arzano, L. and Goswami, D.Y. (1996) "Closed Loop Earth Tube Heat Exchanger for Housing," Solar '96: Proceedings of the National Solar Energy Conference, Asheville, NC, Vol. 21, pp. 107-112, April.
155. Goswami, D.Y., Mathur, G.D., Gupta, S. and Kuo, W. (1996) "Performance Evaluation of a Heat Pump System with Near Azeotropic Refrigerant Mixtures of R-32, R-125, and R-134a," Proceedings of the ASME, AES-Vol. 36, pp. 69-74.
156. Goswami, D.Y., Mathur, G.D., Gupta, S., Stoff, L. and Colacino, C. (1996) "An Experimental Investigation of the Effect of Moisture on the Performance of an Air Conditioning System," Proceedings of the 31st Intersociety Energy Conversion Engineering Conference, Washington D.C, Vol. 3, pp. 2021-2026, August 11-16.
157. Jotshi, C.K., Goswami, D.Y., Klausner, J.F., Hsieh, C.K., Leung, M., Li, H., Malakar, S. and Colacino, F. (1996) "Heat Transfer Characteristics of a High Temperature Sensible Heat Storage Water Heater Using Cast Iron as a Storage Material," Proceedings of the 31st Intersociety Energy Conversion Engineering Conference, Washington, D.C., Vol. 3, pp. 2099-2103, August 11-16.
158. Mathur, G.D., Goswami, D.Y. and Jotshi, C.K. (1996) "A Simulation Program for Predicting Solar Detoxification Costs," Proceedings of the 31st Intersociety Energy Conversion Engineering Conference, Washington, D.C., Vol. 3, pp. 1703-1708, August 11-16.
159. Anheden, M., Goswami, D.Y. and Svedberg, G. (1995) "Photocatalytic Treatment of Wastewater from 5-fluorouracil Manufacturing," Solar Engineering 1995, Proceedings of the ASME International Solar Energy Conference, Hawaii, pp. 439-448, March.

160. Block, S.S. and Goswami, D.Y. (1995) "Chemically Enhanced Sunlight for Killing Bacteria," Solar Engineering 1995, Proceedings of the ASME International Solar Energy Conference, Hawaii, pp. 431-438, March.
161. Goswami, D.Y. (1995) "Solar Thermal Power: Status and Future Directions," Proceedings of the 2nd ASME-ISHMT Heat and Mass Transfer Conference, Mangalore, India, pp. 57-60, December.
162. Goswami, D.Y., Jotshi, C.K., Klausner, J.F., Hsieh, C.K, and Srinivasan, N. (1995) "Thermal Storage in Ammonium Alum/Ammonium Nitrate Eutectic for Solar Space Heating," Solar '95, Proceedings of the ASES Annual Conference, Minneapolis, MN, pp. 336-341, July.
163. Goswami, D.Y., and Mathur, G.D. (1995) "Indirect Evaporative Cooling Retrofit as a Demand Side Management Strategy for Residential Air Conditioning," Proceedings of the 30th Intersociety Energy Conversion Engineering Conference, Lake Buena Vista, FL, Vol. 2, pp. 317-322, July-August.
164. Goswami, D.Y., Sharma, S.K., Mathur, G.D. and Jotshi, C.K. (1995) "Techno-Economic Analysis of Solar Detoxification Systems," Solar Engineering 1995, Proceedings of the ASME International Solar Energy Conference, Hawaii, pp. 467-473, March.
165. Goswami, D.Y., Trivedi, D. and Block, S.S. (1995) "Photocatalytic Disinfection of Indoor Air," Solar Engineering 1995, Proceedings of the ASME International Solar Energy Conference, Hawaii, pp. 421-430, March.
166. Jotshi, C.K., Goswami, D.Y., Huddle, R.B, and Srinivasan, N. (1995) Thermal Energy Storage in Phase Change Materials for Heating Applications," Proceedings of the 30th Intersociety Energy Conversion Engineering Conference, Lake Buena Vista, FL, Vol. 2, pp. 207-212, July-August.
167. Sherif, S.A., Goswami, D.Y., Mathur, G.D., Davanagere, B.S., Iyer, S.V., Natarajan, S. and Colacino, F. (1995) "Thermodynamics of Economics of a Steam-Jet Refrigeration System," Proceedings of the 30th Intersociety Energy Conversion Engineering Conference, Lake Buena Vista, FL, pp. 381-386, July-August.
168. Terry, C.K., Peterson, J.E. and Goswami, D.Y. (1995) "Feasibility of a Terrestrial Solar Pumped Iodine Gas Laser," Solar Engineering 1995, Proceedings of the ASME International Solar Energy Conference, Hawaii, pp. 671-678, March.
169. Zaidi, A.H., Goswami, D.Y. and Wilkie, A.C. (1995) "Solar Photocatalytic Post-Treatment of Anaerobically Digested Distillery Effluent," Solar '95, Proceedings of the ASES Annual Conference, Minneapolis, MN, pp. 51-56, July.
170. Goswami, D.Y. (1994) "Solar Energy: The Natural Solution for Energy and Environment," Invited Paper, Proceedings of the ASME-ISHMT Heat and Mass Transfer Conference, Bombay, India, pp. 61-66, January.
171. Goswami, D.Y., Mathur, G.D. and Jotshi, C.K. (1994) "Methodology of Design of Non-Concentrating Solar Detoxification Systems," Proceedings of the ASME Engineering Systems Design and Analysis Conference, PD-Vol. 64-3, pp. 117-121, July.

172. Öberg, V., Goswami, D.Y. and Svedberg, G. (1994) "On Solar Photocatalytic Treatment of Groundwater Containing," Solar Engineering 1994, Proceedings of the ASME International Solar Energy Conference, pp. 147-153, March.
173. Roman, J.R., Peterson, J. and Goswami, D.Y. (1994) "An Off-Axis Cassegrain Optical Configuration for Solar Radiation Concentration." Solar Engineering 1994, Proceedings of the ASME International Solar Energy Conference, San Francisco, California, pp. 551-559, March.
174. Terry, C., Peterson, J. and Goswami, D.Y. (1994) "Design, Development, Construction, and Operation of a Terrestrial Solar-Pumped Iodine Gas Laser," Proceedings of the 29th Intersociety Energy Conversion Engineering Conference, Vol. 4, pp. 1730-1735, August.
175. Bedford, J., Klausner, J.F., Goswami, D.Y. and Schanze, K.S. (1993) "Performance of Nonconcentrating Solar Photocatalytic Oxidation Reactors Part II: Shallow Pond Configuration," Solar Engineering 1993, Proceedings of the ASME/ASES International Solar Energy Conference.
176. Goswami, D.Y., Klausner, J.F., Mathur, G.D., Martin, A., Wyness, P., Schanze, K., Turchi, C. and Marchand, E. (1993) "Solar Photocatalytic Treatment of Groundwater at Tyndall AFB: Field Test Results." Proceedings of the 1993 Annual Conference of the American Solar Energy Society, pp. 235-239.
177. Goswami, D.Y., Mathur, G.D. and Kulkarni, S. (1993) "Experimental Investigation of the Performance of a Residential Air Conditioning System with an Evaporative Cooled Condenser," Solar Engineering 1993, Proceedings of the ASME/ASES International Solar Energy Conference.
178. Klausner, J.F. and Goswami, D.Y. (1993) "Solar Detoxification of Wastewater Using Non-Concentrating Reactors," Heat Transfer - Atlanta 1993, AIChE Symposium Series, No. 295, Vol. 89, pp. 445-452, August.
179. Klausner, J.F., Martin, A.R., Goswami, D.Y. and Schanze, K.S. (1993) "On the Accurate Determination of Reaction Rate Constants in Batch Type Solar Photocatalytic Oxidation Facilities," Solar Engineering 1993, Proceedings of the ASME/ASES International Solar Energy Conference
180. Wyness, P., Klausner, J.F., Goswami, D.Y. and Schanze, K. (1993) "Performance of Non-Concentrating Solar Photocatalytic Oxidation Reactors Part I: Flat Plate Configurations," Solar Engineering 1993, Proceedings of the ASME/ASES International Solar Energy Conference.
181. Jotshi, C.K., Goswami, D.Y., and Tomlinson, J.J. (1992) "Solar Thermal Energy Storage in Phase Change Materials," Proceedings of Solar '92 American Solar Energy Society Annual Conference, Cocoa Beach, Florida, June.
182. Klausner, J.F., Goswami, D.Y. and Wyness, P. (1992) "Energy Consumption of Wastewater Treatment Technologies," Solar Engineering 1992, Proceedings of the ASME International Solar Energy Conference, pp. 29-36, April.

183. Saltiel, C., Martin, A. and Goswami, D.Y. (1992) "Performance Analysis of Solar Water Detoxification Systems by Detailed Simulation," Solar Engineering 1992, Proceedings of the ASME International Solar Energy Conference, pp. 21-28, April.
184. Goswami, D.Y. (1991) "Some Recent Developments in Solar Thermal Engineering," ATHENS '91, Proceedings of the International Conference on Analysis of Thermal and Energy Systems, pp. 793-804, June.
185. Goswami, D.Y. (1991) "Effect of Velocity Profiles on the Accuracy of Liquid Flow Measurement Instrumentation," Solar Engineering 1991, Proceedings of the ASME-JSME-JSES International Solar Energy Conference, pp. 547-554, March.
186. Goswami, D.Y., Hingorani, S. and Mines, G. (1991), "A Laser Based Technique for Particle Sizing to Study Two Phase Expansion in Turbines," Solar Engineering 1991, Proceedings of the ASME-JSME-JSES International Solar Energy Conference, pp. 561-570, March.
187. Klausner, J.F., Goswami, D.Y. and Wyness, P. (1991) "Energy Consumption of Wastewater Treatment Technologies," Proceedings of the 26th Intersociety Energy Conversion Engineering Conference, pp. 117-122, August.
188. Goswami, D.Y., et al. (1990) "Simulated and Measured Performance of a Geodesic Dome Solar Fruit Dryer," FLOWERS 90, Proceedings of the Florence World Energy Research Symposium, Florence, Italy, May-June.
189. Goswami, D.Y., et al. (1990) "Experimental Study of a Geodesic Dome Solar Fruit Dryer," Proceedings of the 25th Intersociety Energy Conversion Engineering Conference, Vol. 5, pp. 156-161, August.
190. Goswami, D.Y., Jotshi, C. K. and Olszewski, M. (1990) "Analysis of Thermal Energy Storage in Cylindrical PCM Capsules Embedded in a Metal Matrix," Proceedings of the 25th Intersociety Energy Conversion Engineering Conference, Vol. 4, pp. 257-262, August.
191. Goswami, D. Y., Barshooi, M. and Stefanakos, E. (1987) "Effect of Ground Reflectivity and Ground Offset on the Row-to-Row Shading of Flat Plate Solar Arrays," Solar Engineering '87, Proceedings of the ASME/JSME/JSES Solar Energy Conference.
192. Goswami, D.Y., et al. (1987) "Analysis of Tray Thermal Efficiencies of Direct Contact Heat Exchangers for Vaporizing Hydrocarbon Mixtures," Proceedings of the 2nd ASME-JSME Thermal Engineering Conference, Honolulu, Hawaii, March.

193. Ileslamlou, S. and Goswami, D.Y. (1987) "Performance Analysis of a Closed-Loop Climate Control System for Residential and Agricultural Buildings Using Underground Air Tunnel," Solar Engineering '87, Proceedings of the ASME/JSME/JSES Solar Energy Conference.
194. Stefanakos, E.K., Goswami, D.Y., Hassan, A.Y., Collis, W.J. and Royal, E. (1986) "Effect of Row to Row Shading on the Power Output of Photovoltaic Arrays," Solar Engineering '86, Proceedings of the ASME Solar Energy Conference.
195. Goswami, D.Y., Hassan, A.Y., Stefanakos, E.K. and Collis, W.J. (1985) "Effect of Row to Row Shading on the Power Output of Photovoltaic Arrays," Proceedings of INTERSOL '85 - The Biennial Congress of the International Solar Energy Society, June.
196. Goswami, D.Y. (1985) "Performance Testing and Standards for Solar Energy Systems and Components," Proceedings of the U.S.-India Symposium on Solar Energy Research and Application, Roorkee, India, August 9-11.
197. Sharpe, L. and Goswami, D.Y. (1985) "Thermal Performance of Direct Contact Heat Exchangers for Mixed Hydrocarbons," ASME Paper 85-HT-46, Proceedings of the National Heat Transfer Conference, Denver, CO, August.
198. Dhaliwal, A.S. and Goswami, D.Y. (1984) "Heat Transfer Analysis in Environmental Control Using an Underground Air Tunnel," Solar Engineering '84, Proceedings of the ASME Solar Energy Conference, Las Vegas, NV, April 9-12.
199. Klett, D.E. and Goswami, D.Y. (1984) "Thermal Performance Testing of Heat Exchangers Used in Solar Energy Systems," Proceedings of Solar in the Southeast, 1st NCSEA Technical Conference, Wrightsville Beach, NC, April.
200. Klett, D.E., Goswami, D.Y. and Saad, M.T. (1983) "Thermal Performance of Submerged Coil Heat Exchangers Used in Solar Energy Storage Tanks," Solar Engineering '83, Proceedings of the 5th ASME Solar Energy Conference, Orlando, FL, April 19-21.
201. Goswami, D.Y. (1982) "Solar Process Heat for the Textile Industry: A Critical Evaluation," Paper presented at Energy Conservation in Textile Industry Conference, Atlanta, GA, February 9-10.
202. Goswami, D.Y. and Klett, D.E. (1982) "Thermal Performance Testing of Heat Exchangers for Use in Low Temperature Solar Energy Systems," Solar Engineering '82, Proceedings of the ASME Solar Energy Conference, Albuquerque, NM, April 26-30.

203. Goswami, D.Y. and Klett, D.E. (1982) "Thermal Performance Testing of Compact Heat Exchangers for Low Temperature Solar Energy Systems," Solar India '82, Proceedings of the National Solar Energy Conference, New Delhi, India, December 17-19.
204. Goswami, D.Y. and Klett, D.E. (1981) "Solar Industrial Process Heat for Textile Industries," Paper presented at ASME Textile Industries Conference, Raleigh, NC, October 13-14. Numbers for Use in Solar Radiation Modeling," AIAA Paper - 80-0396, Presented at AIAA 18th Aerospace Sciences Meeting, Pasadena, CA, January 14-16.
205. Goswami, D.Y. Sinha, R.R. and Klett, D.E. (1981) "Theoretical and Experimental Analysis of Passive Cooling Using Underground Air Pipe," Proceedings of ISES Meeting, Brighton, England, August 23-28.
206. Goswami, D.Y., Klett, D. E. and Stefanakos, E.K. (1980) "Seasonal Variations of Atmospheric Clearness
207. Goswami, D.Y. and Mabinton, R.D. (1980) "Compilation of Thermal Radiative Properties of Building and Furnishing Materials and Other Interiors for Use in Energy Conserving Designs," Proceedings of the AS/ISES Solar Jubilee.
208. Goswami, D.Y. and Vachon, R.I. (1980) "Turbulent Boundary Layer Flow of Absorbing, Emitting and Axisymmetrically Scattering Gaseous Medium," Paper TP 80-16, AIAA 15th Thermophysics Conference, Snowmass, CO, July 14-16.
209. Goswami, D.Y and Klett, D.E. (1979) "A Low Cost Retrofit Solar Home for Demonstration and Consumer Acceptance Experiments," Proceedings of Solar Heating and Cooling Systems Operational Results Conference, Colorado Springs, CO, November 27-30.

FUNDED RESEARCH *(as Principal Investigator, unless otherwise noted. In descending order.)*

Global Cool Cities Alliance, "Accelerating the Deployment of Energy Efficiency and Renewable Energy Technologies in South Africa," (2014-2017) Budget: \$ 88,999.00

Colorado School of Mines, "Sustainable Photovoltaics and Subcontract Coordination (SERIIUS)-CSM" (2013-2017) Budget: \$ 160,000.00

Tampa Electric Co. "Evaluation of Renewable and Distributed Generation Technologies at the TECO Demonstration Center" (2015-2016) Budget \$75,000.00

National Renewable Energy Laboratory: Solar Energy Research Institute for India and the United States (January 2012-December 2016) Budget 252,002

NCSR Demokritos: Linear-Focus Concentrating Solar Collector Based on a Novel Receptor-Development and Demonstration (February 2013-January 2015) Budget: \$19,212

Associated Gas Distributors of Florida: Field Testing of Gas Heat Pump (July 2012-June 2015) Budget 199,966.

US Department of Energy, "Development of Low Cost Thermal Energy Storage System" (2011-2015)
Budget: \$2,672,790.00

Keiler-Atlantic Center of Excellence, "PCM Thermal Energy Storage and Transport System (TEST) for the Utilization of Geothermal Heat and other Heat Sources," (2014) Budget: \$159,369

Florida Aquaculture Review Council: Removal of Off-Flavor Compounds in Aquaculture Food Products: Optimizing New Techniques for Sustainable Aquaculture Systems (July 2013-June 2014) Budget \$114,714

ARPAe-USDOE: "Development of a Low Cost Thermal Energy Storage System with Enhanced Radiative Heat Transfer" USDOE (January 2012 – Dec. 2014) Budget: \$2,744,082

E-ON INTERNATIONAL: "Innovative Latent Thermal Energy Storage System for Concentrating Solar Power Plants", E-On International, (January 2011 – June 2014) Budget: \$814,108

Florida Power and Light Company: "Performance Evaluation Energy Saving Potential of VaporGenics Organic Rankine Cycle Air Conditioning Unit (December 2012-December 2013) Budget \$113,516

U.S. DOE: "Development and Demonstration of an Innovative Thermal Energy Storage System for Baseload Solar Power Generation", US DOE (Aug. 2010-July 2013), Budget: \$4,537,289

SUNBORNE ENERGY: "Development of a Modular Central Receiver Concentrated Solar Power Plant for Decentralized Power Generation," SunBorne Energy Technologies Pvt. Ltd. CO PI: Goswami (October 2010 – September 2012), Budget: \$118,000

ISES: "Solar Energy Journal," International Solar Energy Society (Jan. 2011-Dec. 2011) Budget: \$48,384

UT BATELLE: "Thermodynamic Modeling of the Geothermal Turbine system including Cooling Options," UT Batelle/ Oak Ridge National Laboratory, (November 2010 – October 2011), Budget: \$104,674

STATE OF FLORIDA: "Removal of Off-Flavor Compounds in aquaculture Food Products: Optimizing New Techniques for Sustainable Aquaculture Systems," State of Florida, CO PI: Goswami (September 2010 – August 2011), Budget: \$120,449

U.S. DOE: "Florida Hydrogen Initiative," US DOE/University of Central Florida, CO PI: Goswami (July 2010 – July 2011), Budget: \$99,987

ISES: "Solar Energy Journal," International Solar Energy Society (Jan. 2010-Dec. 2010) Budget: \$42,440

FLORIDA STATE LEGISLATURE: "Florida Energy Systems Consortium", Florida State Legislature (September 2008-August 2011), Budget: \$6.56M

FLORIDA ENERGY SYTEMS CONSORTIUM: "Design, Construction and Operation of CSP Solar Thermal Power Plants in Florida," Florida Energy Systems Consortium (Aug. 2008-Dec. 2011), Budget: \$1,285,965

U.S. DOE: "Multi-Disciplinary Doctoral Graduate Fellowship Program at the Water, Energy, Materials, Human Nexus [Graduate Assistance in Areas of National Need (GAANN)], US DOE (Oct. 2009-Sept. 2012), Budget: \$914,592.

ISES: "Solar Energy Journal," International Solar Energy Society (Jan. 2009-Dec. 2009) Budget: \$42,440

ISES: "Solar Energy Journal," International Solar Energy Society (Jan. 2008-Dec. 2008) Budget: \$42,440

ISES: "Solar Energy Journal," International Solar Energy Society (Jan. 2007-Dec. 2007) Budget: \$42,440

ISES: "Solar Energy Journal," International Solar Energy Society (Jan. 2006-Dec. 2006) Budget: \$42,440

FLORIDA POWER AND LIGHT: "Performance Evaluation of Freus® Evaporatively Cooled Residential Air Conditioner," Florida Power and Light (Oct. 2006-Aug. 2011) Budget: \$53,506

COGNITEK: "Simulation and Optimization of CO₂ Thermodynamic Cycle," CogniTek Management Systems Inc. (June 2006-Sept. 2008), Budget: \$32,003

ISES: "Solar Energy Journal," International Solar Energy Society (Jan. 2005-Dec. 2005) Budget: \$42,440

ASES: "Advances in Solar Energy Vol. 17," American Solar Energy Society (January 2005-December 2007) Budget: \$36,000

USF: "Photo-Electrochemical Air Disinfection to Destroy Airborne Hazardous Micro-Organisms," University of South Florida (January 2005-December 2005) Budget: \$189,690

U.S. DOE: Co-Principal Investigator, "Fuel Cells and Hydrogen Research", US Department of Energy (May 2004-Dec. 2010), Budget: \$6,172,694

NC A&t UNIVERSITY: "Florida Hydrogen Technology and Learning Center," North Carolina A & T University (September 2004-September 2007) Budget: \$80,000

FLORIDA POWER AND LIGHT: "Analysis of Heat Recovery Systems for the Florida Power & Light District," Florida Power & Light Corporation, (May 2004-December 2005) Budget: \$45,707

U.S. DOE / USF: "Fuel Cell and Hydrogen Research," University of South Florida/ US Dept. of Energy (August 2004-July 2005) Budget: \$981,189

FESC / UCF: "Solar and Renewable Energy Research Projects," Florida Solar Energy Center/University of Central

Florida (July 2004-June 2005) Budget: \$122,226

ASES: "Advances in Solar Energy Vol. 16," American Solar Energy Society (July 2001-December 2004) Budget: \$36,000

USF: "Photocatalytic Air Disinfection to Destroy Airborne Hazardous Microorganisms, University of South Florida (October 2003-March 2004) Budget: \$114,198

ASES: "Advances in Solar Energy Vol. 15," American Solar Energy Society (July 2001-December 2004) Budget: \$36,000

NASA: "Hydrogen Research and Education," NASA (April 2002-September 2004) Budget: \$1,086,192

FESC / UCF: "Solar and Renewable Energy Research Projects," Florida Solar Energy Center/University of Central Florida (July 2003-June 2004) Budget: \$122,226

USF: "Photocatalytic Air Disinfection to Destroy Airborne Hazardous Microorganisms, University of South Florida (September 2002-January 2004) Budget: \$177,556

ISES: "Solar Energy Journal," International Solar Energy Society, (January 2003-December 2003) Budget: \$20,000

FESC / UCF: "Solar and Renewable Energy Research Projects," Florida Solar Energy Center/University of Central Florida (July 2002-June 2003) Budget: \$122,206

FLORIDA POWER AND LIGHT: "Analysis of Heath Recovery Systems for the Florida Power and Light District Office/Daytona Beach, FL," Florida Power and Light (January 2001-December 2003) Budget: \$211,613

ASES: "Advances in Solar Energy," American Solar Energy Society, (September 1999-March 2003) Budget: \$18,000

NASA: Co-Principal Investigator: "Effectiveness of Photocatalytic Reactor System for Water Recovery and Air Revitalization in Long-Duration Human Spaceflight," NASA (January 2001-May 2002) Budget: \$32,473.

FLORIDA POWER AND LIGHT: "A Study to Confirm Energy Performance of Cromer Cycle Air Conditioner Design," Florida Power and Light Corporation (January 2001-December 2002) Budget: \$93,993

FLORIDA POWER AND LIGHT: "Feasibility Study on Solar Heating of a Manatee Refuge in Southeast Florida," subcontracting for Kearney and Associates for Florida Power and Light Co. (September-December 2001) Budget: \$7,300.

FESC / UCF: "Solar Energy Research," Florida Solar Energy Center, University Of Central Florida (July 2001-June 2002) Budget: \$122,226

FESC / UCF: "Solar Energy Research," Florida Solar Energy Center (July 2000-June 2001) Budget: \$134,314

- FLORIDA POWER AND LIGHT: "A Study to Confirm Energy Performance and Market Feasibility of Cromer Cycle Air Conditioner Design," Florida Power and Light Co. (January -December 2001) Budget: \$79,037
- NASA: Co-Principal Investigator: "Effectiveness of Photocatalytic Reactor System for Water Recovery and Air Revitalization in Long-Duration Human Spaceflight," NASA, (January-September 2001) Budget: \$66,000
- U.S. DOE: "Innovative Thermal Cycle for Geothermal Power," U.S. Department of Energy (September 1999-March 2001) Budget: \$173,697
- ASES: "Advances in Solar Energy," American Solar Energy Society (October 1999-December 2000) Budget: \$14,500
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida (July 1999-June 2000) Budget: \$134,314
- ASES: "Advances in Solar Energy," American Solar Energy Society (May 1998-October 1999) Budget: \$14,500
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida (July 1998-June 1999) Budget: \$134,314
- FLORIDA POWER AND LIGHT: "A Solar Hybrid Liquid Desiccant Air Conditioning System," Florida Power and Light Co. (January 1998-October 1999) Budget: \$71,201
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida (July 1997-June 1998) Budget: \$134,314
- FLORIDA POWER AND LIGHT: "Performance Analysis of Subcoolers, Intercoolers and Liquid to Suction Heat Exchangers for Refrigeration and Air Conditioning Applications," Florida Power and Light Co. (May 1996-December 1997) Budget: \$24,776
- ARTI: "Foaming Characteristics of Alternative Refrigerant Lubricant Mixtures," Air Conditioning and Refrigeration Technology Institute (November 1995-October 1996) Budget: \$199,900
- STATE OF FLORIDA ENERGY OFFICE: "Solar Photocatalytic Treatment of Groundwater," Department of Community Affairs, Florida Energy Office (July 1995-June 1996) Budget: \$50,000
- STATE OF FLORIDA ENERGY OFFICE: "A Hybrid Liquid Desiccant Air Conditioning System," Department of Community Affairs, Florida Energy Office (July 1995-June 1996) Budget: \$30,000
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida (July 1995-June 1996) Budget: \$134,314
- RFC: "Affordable House Energy Conversion," Resolution Financial Corp. (April 1995-April 1996) Budget: \$8,352

- STATE OF FLORIDA ENERGY OFFICE: "FLASTAR," Dept. Community Affairs, Florida Energy Office (January 1995-June 1996) Budget: \$179,730
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida(July 1994-June 1995) Budget: \$134,314
- KALWALL CORP.: "Solar Optical Properties of Composite Fenestration Panels," Kalwall Corporation (May 1994-April 1995) Budget: \$12,500
- FLORIDA POWER AND LIGHT: "Effect of Level of Charge: Moisture in Refrigerants on the Performance of Air Conditioning Systems," Florida Power and Light Co. (January 1995-December 1995) Budget: \$61,787
- BATELLE PACIFIC: "Development of an Advanced Storage Electric Water Heater," Battelle Pacific Northwest Laboratories (January 1995-December 1995) Budget: \$66,667
- FESC / UCF: Solar Energy Research," Florida Solar Energy Center University of Central Florida (July 1993 to June 1994) Budget: \$134,314
- BATELLE PACIFIC: "Development of an Advanced Storage Electric Water Heater," Battelle Pacific Northwest Laboratories (November 1993-May 1995) Budget: \$59,195
- FLORIDA POWER AND LIGHT: "Review of Steamjet Refrigeration," Florida Power and Light Co. (February 1993-December 1994) Budget: \$10,000
- FLORIDA POWER AND LIGHT: "Evaluation of Blended Refrigerants," Florida Power and Light Co. (February 1993-December 1994) Budget: \$45,718
- FLORIDA POWER AND LIGHT: "Water Heating Technologies for Energy Conservation," Florida Power and Light Co., (September 1992- December 1993) Budget: \$73,723
- FLORIDA POWER AND LIGHT: "Window Technologies for Energy Conservation," Florida Power and Light Co. (September 1992-December 1993) Budget: \$73,723.31
- STATE OF FLORIDA ENERGY OFFICE: "Indirect Evaporative Cooled Heat Pump Development," Florida Energy Office (October 1991- September 1992) Budget: \$9,416
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida (July 1992-June 1993) Budget: \$137,758
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida "Solar Energy Research," Florida Solar Energy Center (July 1991-June 1992) Budget: \$137,180
- FLORIDA POWER CORP.: "Development of Advanced Storage Electric Water Heater," Florida Power Corporation (June 1991-December 1993) Budget: \$100,000

- MARTIN MARIETTA: "Development of Advanced Storage Electric Water Heater," Martin Marietta Energy Systems (June 1991-September 1993) Budget: \$119,275
- FLORIDA POWER AND LIGHT: "Development of Advanced Storage Electric Water Heater," Florida Power & Light Co. (January 1991-December 1994) Budget: \$150,000
- SERI: "Non-Concentrating Solar Reactor Research," Solar Energy Research Institute (June 1991-June 1993) Budget: \$267,175
- EG&G IDAHO: "Technical Assistance on Heat Cycle Research," E G & G, Idaho (July 1990-December 1991) Budget: \$26,012
- STATE OF FLORIDA ENERGY EXTENSION OFFICE: "Use of Underground Air Tunnels to Improve COP of Agricultural Refrigeration Systems," Energy Extension Service, State of Florida (July 1990-June 1991) Budget: \$32,000
- FESC / UCF: "Solar Energy Research," Florida Solar Energy Center University of Central Florida (July 1990-June 1991) Budget: \$137,180
- FORD MOTOR: "Airflow Measurement Procedure Survey," Ford Motor Company (January 1989-June 1989) Budget: \$9,000
- HONEYWELL: "System Performance and Perceived Thermal Comfort in the Garrett House Test Facility," Honeywell, Inc. (January 1989-December 1989) Budget: \$76,892
- HONEYWELL: "The Impact of Environmental Control of Perceived Thermal Comfort and Indoor Air Quality in Residences," Honeywell, Inc. (June 1988-December 1989) Budget: \$25,000
- U.S. AID: "Use of Solar Energy for Drying Fruits for Developing Countries," USAID (October 1987-June 1989) Budget: \$97,000
- U.S. AFOSR: "Radiative and Convective Heat Transfer over Ablating Composite Flat Surface in Hypersonic Flow Regime," AFOSR (September 1986-March 1987) Budget: \$38,600
- EG&G IDAHO: "Investigation of Condensation Behavior of Hydrocarbons in Two-Phase Expansion and Efficiency Analysis of DCHX," EG&G, Idaho (February 1985-August 1989) Budget: \$249,494
- GILBARCO: "Investigation of Flow Profiles in Pipe Flow," Gilbarco, Inc. (October 1983-September 1984) Budget: \$16,902
- NASA: "Development of Computer Models for Correlating Data of Film Cooling of Nose Cone Under Hypersonic Flow," NASA Langley Research Center (October 1983-September 1986) Budget: \$254,268
- EG&G IDAHO: "Evaluation of Direct Contact Heat Exchanger Efficiencies from Experimental Data," EG&G, Idaho (August 1983-January 1985) Budget: \$48,853

EGYPT SUPREME COUNCIL OF UNIVERSITIES: U.S. Counterpart: "Development and Production of Solar Collectors for Egypt," Joint project with Ain Shams University, Cairo, Egypt, funded by the Supreme Council of Universities, Egypt. (1981-1983) Budget: \$12,500/yr; Egyptian Pounds \$35,000

U.S. AIR FORCE: Co-Investigator: "Testing of Composites under Controlled Conditions of Temperature and Humidity," Wright Patterson Air Force Base (December 1981-December 1983) Budget: \$230,000

NC ALTERNATIVE ENERGY: "Energy Use in Mobile Homes," North Carolina Alternative Energy Corporation (November 1981-May 1982) Budget: \$5,500

U.S. AIR FORCE: Co-Investigator: "Renewable Energy System Feasibility Study," Air Force Wright Patterson Aeronautical Laboratories (September 1980-January 1982) Budget: \$112,349

U.S. DOE: Co-Investigator: "Solar Energy Research," US DOE (September 1979-September 1980) Budget: \$60,000

USDA: "Potential Areas of Energy Conservation and Use of Alternative Energy Sources in Agriculture in North Carolina," USDA (May 1980-August 1980) Budget: \$15,997

U.S. EPA: "Investigation of Flow of an Immiscible Liquid Pollutant in a Stream of Water," US Environmental Protection Agency (September 1979-September 1981) Budget: \$84,071

USDA: Co-Investigator: "Energy Conservation and Use of Solar Energy for Low Income Rural House," USDA (1979-1980) Budget: \$45,000

U.S. DOE: Co-Investigator: "Solar Radiation Design Handbook and Solar Collector Test Facility for North Carolina," US Department of Energy. As a result of this project a handbook of "Solar Radiation Design Data for North Carolina was prepared which was published by the Energy Division of the State of North Carolina. (1979-80) Budget: \$99,900

NC ENERGY INSTITUTE: "Model Solar Home for Demonstration and Consumer Studies," a project funded by North Carolina Energy Institute. The Governor of North Carolina inaugurated this demonstration house in March 1980. (1979-1980) Budget: \$23,900

ADDITIONAL LEADERSHIP ACTIVITIES

- Member, International Advisory Committee for the "Ability R&D Energy Research Centre," School of Energy and Environment, City University of Hong Kong, 2011.
- Member, International Advisory Committee for the "Solar Energy Research Centre," Indian Institute of Technology, Rajasthan, India, 2011.
- Co-Chair, Homeland Security Track, International Mech. Eng. Congress & Exposition, 2003.
- Chairman, Technical Programs Committee, ISES, 2001-2003.
- Member, Meetings and Conferences Committee, ASES, 1997-Present.
- Chairman, Membership Committee, ASES, 1997-2000.
- Chairman, COE/CMA Task Force, ASME, 1992-93, 1994-1995.

- Member, COE/CMA Task Force, ASME, 1993-1994.
- Member, Board on Public Information, ASME, 1993-1997.
- Member, Satellite Programs Advisory Committee, 1993-Present.
- Member, Inter-council Committee on Federal R&D, ASME, 1991-Present.
- Member, Energy and Environment Policy Committee, ASME, 1990-92.
- Member, Steering Committee, IECEC, 1989-1996.
- Member, Energy Resources Board, ASME, 1988-89.
- Member, Executive Committee, ASME Solar Energy Division, 1985-1988.
- Vice Chairman, ASME Solar Energy Division, 1986-87.
- Secretary Treasurer, ASME Solar Energy Division, 1985-86.
- Chairman, Solar Testing and Measurements Committee, Solar Energy Division, ASME-International, 1981-84.
- Member, Solar Testing and Measurements Committee, Solar Energy Division, ASME, 1979-Present.
- Technical Activities Chairman, ASME, Carolina Section, 1983-85.
- Chairman, ASME, Carolina Section, 1981-82.
- Secretary, ASME, Carolina Section, 1979-80, 1980-81.
- Reviewer, ASME, AIAA, NSF, USDA, NIST; USDOE, USEPA.
- Invited panelist and speaker at a number of meetings and seminars.
- Registered Professional Engineer, North Carolina and Florida.
- Faculty Advisor, Student Section, North Carolina Agricultural & Technical State University, 1978-80.

CONFERENCE ORGANIZATION ACTIVITIES

- International Advisory Board, ISREE 2017, 11th International Symposium on Renewable Energy Education, June, 2017, Strömstad, Sweden.
- International Scientific Committee, Solar World Congress 2013, International Solar Energy Society, Cancún, México.
- Scientific Committee, SolarPACES Conference, IEA, Las Vegas, NV, Sept. 2013
- International Scientific Committee, 12th International Conference of Clean Energy (ICCE 2012), Xian, China
- Chair of the International Scientific Advisory Committee, 2009 Solar World Congress, South Africa.
- International Advisory Board of the International Conference on Hydrogen Production (ICH2P), Oshawa, Canada, 2009.
- Chair of the International Scientific Advisory Committee, 2007 Solar World Congress, Beijing, China.
- Conference Technical Chairman, Solar World Congress (ISES), Orlando, FL, August 2005.
- Conference Honorary Co-Chair, ISES Arab Regional Solar Energy Conference, Bahrain, Nov. 2006
- Conference Honorary Co-Chair of the Advisory Committee, Renewable Energy 2006, Chiba, Japan, Oct. 2006.
- Co-Chair, Homeland Security Track of the International Mechanical Engineering Congress and Exposition, Washington, D.C., 2003.
- Conference Chairman, 8th International Symposium on Renewable Energy Education (ISREE), Orlando, Florida, August 2002.

- Conference Chairman, 30th Intersociety Energy Conversion Engineering Conference (IECEC), Orlando, Florida, July 31-August 4, 1995.
- Conference Program Chairman, 23rd ICEC, Denver, Colorado, July 31 - August 4, 1988.
- Conference Chairman, ASME-JSME-JSES Solar Engineering Conference, Honolulu, Hawaii, March 1987.
- Conference Chairman, U.S. India Bi-National Symposium on Solar Energy, Roorkee, India, August 9-11, 1985.
- Technical Program Chairman, 1984 ASME Solar Energy Conference, Las Vegas, Nevada.
- Member of Scientific Advisory Committee for the following international energy conferences:
 - ASME-ATI-UIT Thermal and Environmental Issues in Energy Systems, Sorrento Italy in May 2010.
 - ISES Solar World Congress, 2003, Goteberg, Sweden;
 - ISES Solar world Congress, 2001, Australia;
 - ISES Solar World Congress, 1999, Israel;
 - ISREE-7, 2000, Norway;
 - ISREE-5, 1998, India;
 - ECOS '98, France;
 - ECOS '96, Stockholm Sweden;
 - Energy Systems Conference, Turkey, 1995;
 - ISHMT-ASME Heat & Mass Transfer Conference, 1994, 1995;
 - Energy Systems & Ecology, 1993;
 - Florence World Energy Conference, 1994, 1992;
 - International Conference on Energy Conversion and Energy Sources Engineering, Wuhan, China, 1990.
- Session Chairman, "Solar Energy Conversion," IECEC, Philadelphia, Pennsylvania, August 1987.
- Moderator, "High Performance Composites Seminar," Clemson University, May 1986.
- Session Chairman, "Testing and Measurements," The Solar Energy Conference - 1985, Knoxville, Tennessee, March 25-28, 1985.
- Session Chairman, "Testing and Measurements in Solar Energy Collectors and DHW Systems I," ASME Solar Energy Conference, Orlando, Florida, April 19-21, 1983.
- Session Co-Chairman, "Testing and Measurements," ASME Winter Annual Meeting, Phoenix, Arizona, November 14-19, 1982.
- Session Chairman, "Testing and Measurement I," ASME Solar Energy Conference, Reno, Nevada, April 21-23, 1981.

CONGRESSIONAL AND UNITED NATIONS TESTIMONIES

- "Developing Countries: Transitioning to a Renewable Energy Future," as part of oral presentation on behalf of ISES at the 14th session of the United Nations Commission on Sustainable Development (UN CSD-14), May 2006, New York, NY.
- Oral presentation on behalf of ISES to the United Nations charrette on World Sustainable Energy, February 2004, New York, NY.
- Oral presentation on behalf of ASME to White House Office of Science and Technology U.S.-India S&T Forum, at the National Academies of Sciences in Washington, D.C. September 21, 2001.
- Testimony on behalf of ASME on the Department of Energy FY 1993 Budget. Request for Energy Research and Development Programs, to the Subcommittee on Energy and Water Appropriations, U.S. House of Representatives, March 31, 1992.

- Statement of the Task Force of the ASME on the National Energy Security Act of 1991 (S-341), Committee on Energy and Natural Resources of the U.S. Senate, March 21, 1991.
- Oral and written testimony on the Department of Energy FY 1991 Budget: Conservation and Renewable Energy Committee on Science, Space and Technology, to the U.S. House of Representatives, June 5, 1990.

PROFESSIONAL AFFILIATIONS

- Fellow, National Academy of Inventors (NAI)
- Fellow, American Association for the Advancement of Science (AAAS)
- Fellow, American Society of Mechanical Engineers (ASME)
- Fellow, American Solar Energy Society (ASES)
- Member, Pan American Academy of Engineering
- Member, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- Member, American Society of Engineering Education (ASEE)
- Member, International Solar Energy Society (ISES)
- Member, International Association of Solar Energy Education (IASSEE)

KEYNOTE ADDRESSES at major international conferences (*Total: 54*)

1. "Innovations in Solar Energy," Keynote/Plenary session, at the 12th International Symposium on Renewable Energy Education (ISREE 2017), Strömstad Sweden, June 19-21, 2017.
2. "Advances in Thermal Energy Storage R+D for CSP Applications," Keynote at the National Conference on Solar Thermal Energy Technologies (NCSTET), Jodhpur, India, February 2016.
3. "Recent Advances in In Solar and Renewable Energies," 5th Asia-Pacific Forum on Renewable Energy (AFORE 2015), Jeju, Korea, November 2015.
4. "Solar Energy and Indoor Air Quality", at the China US Clean Air Conference (CUAC 2015), Beijing, China, July 2015
5. "Recent Advances in Thermal Energy Storage Using Phase Change Materials," at the Concentrating Solar Power and Chemical Energy Systems Solar PACES 2014 Conference, Beijing, China, September 2014.
6. "Innovative New Photoelectrochemical technology for destruction of airborne microorganisms and VOC's", at the 17th Annual Meeting of the Indoor Air Quality Association, Nashville, Tennessee, March, 2014.
7. "Thermal Energy Storage" at the Materials Challenges in Alternative and Renewable Energy (MCARE 2014), Clearwater, Florida, February 2014.

8. "New and Emerging Developments in Solar Energy," at the international workshop on the Design of sub-systems for CSP Technologies, Indian Institute of Technology Jodhpur, India, Dec, 2013.
9. "Smart Energy Solutions in the Urban Environment", at the Clusters Alpini Industria Ricerca Energia (CLAIRE) an international collaboration between Italy and France, Torino, Italy, May 2013.
10. "Developments in Solar Energy," at the International Conference on 'Energy Access for All', New Delhi, India, October 2012. The event was sponsored by the Government of India.
11. "New and Emerging Developments in Solar Energy," at the 4th International Conference on 'Energy for the Next Decades', Hong Kong, September 2012. The event was jointly sponsored by the Energy Research Center (AERC) and the City University of Hong Kong.
12. "Global Energy Future," at the III International Congress of Energy, Materials and Environmental issues, Universidad Autónoma del Caribe, Barranquilla, Colombia, November, 2011.
13. "Solar Energy Education," at the ASME 2011 "ESFuelCell 2011" (5th International Conference on Energy Sustainability and 9th Fuel Cell Science Engineering and Conference), Washington, DC, August, 2011
14. "Renewable Energy: A Vision of Sustainable Development," International Symposium on Renewable Energies and Sustainability, at the Universidad Nacional Autónoma de México Centro de Investigación en Energía, Mexico, August, 2010.
15. "New and Emerging Solar Energy Technologies," ASME-ATI-UIT Thermal and Environmental Issues in Energy Systems, Sorrento, Italy, May 2010.
16. "Global Energy Future," Solar Flagships program of the Government of Australia, Queensland University of Technology, Brisbane, Australia, May 2010.
17. "New and Emerging Solar Energy Technologies," Solar Future 2010, Istanbul, Turkey, February 2010.
18. "New and Emerging Solar Energy Technologies," Farrington Daniels Award Lecture, Solar World Congress, Johannesburg, South Africa, October 2009.
19. "New and Emerging Solar Energy Technologies," Plenary Lecture, CISBAT Conference, Lausanne, Switzerland, September 2009.
20. "Emerging CSP Market in India," SolarPACES conference, Berlin, Germany, September 2009.
21. "The Future of Energy on the Planet," 9th Conference of Cities: Sustainability of Cities, Brasilia, Brazil, November 2008.
22. "New and Emerging Solar Energy Technologies – Challenges and Opportunities," Renewable Energy and Beyond Conference, Tel Aviv, Israel, May 2008.

23. "Global Energy Future," Opening Plenary Lecture, Green Equity Conference, San Francisco, California, December 2007.
24. "A Review and Future Prospects of Renewable Energy" Plenary Lecture, 2007 Solar World Congress, Beijing, China, September 2007.
25. "Global Energy System and Role of Solar Energy" Plenary lecture, WISE 2007 Solar Energy Conference, Bangalore, India, July 2007.
26. "Global Energy Future" Plenary Lecture, ASME Energy Sustainability Conference, Long Beach, CA, June 2007.
27. "Transitioning to a Renewable Energy Future" Opening Plenary Lecture at the ISES Arab Regional Solar Energy Conference, Bahrain, November 2006.
28. "Transitioning to a Renewable Energy Future" Opening Plenary Lecture at the Latin American Regional Solar Energy Conference, Buenos Aires, Argentina, October 2006.
29. "Global Energy Future" Opening Plenary lecture at the Renewable Energy 2006 Conference, Chiba, Japan, October 2006.
30. "Transitioning to a Renewable Energy Future" Keynote Lecture at the MRS Annual Meeting, Cancun, Mexico, August 2006.
31. "State of Renewables in the World" Keynote Lecture at the ISES Solar World Congress, Orlando, Florida, August 2005.
32. "New and Emerging Developments in Solar Energy" Keynote Lecture at the 5th IASTED International Conference on Power and Energy Systems (EuroPES), Benalmádena, Spain, June 2005.
33. "Transitioning to a Renewable Energy Future" Keynote Lecture at the ISES Australian/New Zealand 2004 Solar Congress, and the 10th International Symposium of Renewable Energy Educators, Perth, Australia, November 27-December 4, 2004.
34. "Transitioning to a Renewable Energy Future" Keynote Lecture at the ISES Latin-America 2004 Solar Congress, Oaxaca, Mexico, October 2004.
35. "Transitioning to a Renewable Energy Future" Keynote Lecture at the ISES Asia-Pacific 2004 Solar Congress, Seoul, Korea, October 15-20, 2004.
36. "Transitioning to a Renewable Energy Future" Keynote Lecture at the World Renewable Energy Congress VII, Denver, Colorado, August 28-September 3, 2004.
37. "Transitioning to a Renewable Energy Future" Keynote Lecture at the 4th IASTED International Conference on Power and Energy Systems (EuroPES 2004) Rhodes, Greece, June 2004.

38. "Transitioning to a Renewable Energy Future" Keynote Lecture at the Second World Renewable Energy Forum: Renewing Civilization by Renewable Energy, Bonn, Germany, June 2004.
39. "Solar Energy Technologies," Keynote Lecture at the World Technology Network/UNESCO Summit, Paris, France, February 2004.
40. "Transitioning to a Renewable Energy Future" Keynote Lecture at International Congress on Renewable Energy for Sustainable Development (ICORE '04), Bangalore, India, January 2004.
41. "A Review of Hydrogen Production Technologies" ASME International Fuel Cells Conference. Rochester, NY, April 2003.
42. "New and Emerging Developments in Solar Energy," as the "Dr. Deb Memorial Lecture" 25th National Renewable Energy Conference, Hyderabad, India, December 2001.
43. "Photocatalytic Air-Disinfection Technology to Combat Bioterrorism" Plenary Lecture, International Mechanical Engineering Congress, ASME, New York, NY, November 2001.
35. "New and Emerging Developments in Solar Energy," World Solar Forum, International Solar Energy Society (ISES), Adelaide, Australia, November 2001.
36. "Solar Photocatalytic Detoxification and Disinfection," Twenty-fourth National Renewable Energy Convention, Mumbai, India, December 2000.
37. "Current Status of Renewable Energy Education," Seventh International Symposium on Renewable Energy Education," Oslo, Norway, June 2000.
38. "Present Status and Future Directions in Solar Thermal Power," Solar World Congress, International Solar Energy Society, Jerusalem, Israel, July 1999.
39. "Recent Development in Solar Detoxification," Solar World Congress, International Solar Energy Society, Jerusalem, Israel, July 1999.
40. "Recent Advances in Solar Detoxification," National Solar Energy Congress, Roorkee, India, December 1998.
41. "Solar Energy for a Clean Environment - Education is the Key for Implementation," International Symposium on Renewable Energy Education, New Delhi, India, November 1998.
42. John L. Yellott Award Lecture: "Engineering of Solar Detoxification and Disinfection Processes," ASME International Solar Energy Conference, San Antonio, Texas, April 1996.
43. "Recent Advances in Solar Thermal Power," ENERGEX '96 -- Sixth International Energy Conference, Beijing, China, June 1996.

44. "Photocatalytic Disinfection of Indoor Air," Electric Power Research Institute Health Care Initiative Conference, Santa Monica, California, February 1996.
45. "Solar Thermal Power: Status of Technologies and Opportunities for Research," ISHMT-ASME Heat and Mass Transfer Conference, Surathkal, India, December 1995.
46. "Solar Energy: The Natural Solution for Energy and Environmental Problems," 1st ASME-ISHMT Heat and Mass Transfer Conference, Bombay, India, January 1994.
47. "Solar Energy and the Environment," American Chemical Society Joint Annual Meeting of Florida Sections, Orlando, Florida, May 1994.
48. "Solar Energy - The Natural Solution for Energy and Environment," ASME-ISHMT International Heat and Mass Transfer Conference, Bombay, India, January 1994.
49. "Advances in Solar Energy Technologies," Technology Trends and Business Opportunities, New Delhi, India, December 1993.
50. "Solar Energy and the Environment," International Conference on Energy Systems and Ecology, Crakow, Poland, June 1993.
51. "Solar Energy," 33rd Annual Frontiers of Science Symposium, Oklahoma City, Oklahoma, November 1991.
52. "Advances in Renewable Energy Technologies and Future Directions of Energy Use," Pan American Chemical Congress, San Juan, Puerto Rico, September 1991.
53. "Recent Developments n Solar Thermal Engineering," International Conference on Analysis of Thermal and Energy Systems, ATHENS '91, Athens, Greece, June 1991.

HONOR SOCIETIES

- Tau Beta Pi (Engineering Honorary)
- Pi Tau Sigma (Mechanical Engineering)
- Sigma Xi (Scientific Research)
- Phi Kappa Phi (Scholastic)
- Omicron Delta Kappa (Leadership)

PERSONAL

Date of Birth: May 15, 1948
Citizenship: U.S. Citizen

Marital Status: Married (two children)