

Bibliography

- [1] L. Pilato and M. Michno. *Advanced Composite Materials*. Springer-Verlag, Berlin, Germany, 1994.
- [2] J. Weeton, D. Peters, and K. Thomas. *Engineer's Guide to Composite Materials*. American Society for Metals, Metals Park, OH, 1987.
- [3] W. Smith. *Principals of Materials Science and Engineering, 3rd Ed.* The McGraw-Hill Companies, Inc., New York, NY, 1999.
- [4] MatWeb Material Property Data. Toho Besfight G40 – 800 12K IMA5C EP03 Continuous Filament Carbon Fiber. <http://www.matweb.com>, 2005.
- [5] Hydrosize Technologies Inc. U-Nyte Set 201 Reactive Epoxy Binder. <http://www.hydrosize.com>, 2005.
- [6] Energy Advocates. <http://www.energyadvocate.com/batts.htm>, 2005.
- [7] MatWeb Material Property Data. DuPont Kapton 200HN Polyimide Film, 50 Micron Thickness. <http://www.matweb.com>, 2005.
- [8] M. Hyer. *Stress Analysis of Fiber-Reinforced Composite Materials*. McGraw-Hill Companies, Inc., United States, 1998.
- [9] E. Umez-Eronini. *System Dynamics and Control*. Brooks/Cole Publishing Co., Pacific Grove, CA, 1999.
- [10] Inframetrics Inc. Inframetrics 760 Model, IR Imaging Radiometer. Model 760 Operator's Manual, Document #07137-000 Rev C, 1992.
- [11] D.E. Koelle. Specific transportation costs to GEO - past, present and future. *Acta Astronautica*, 53:797–803, 2003.

- [12] R.E. Freeland and et al. Inflatable deployable space structures technology summary. *49th Congress of International Astronautical Federation Proceedings*, (IAF-98-I.5.01), 1998.
- [13] J.T. Harris and F.J. Stimler. Expandable structures for space. *Astronautics*, 6:30–31,92–94, 1961.
- [14] G.G. Reibaldi and M.C. Bemasconi. Quasat programme: The esa reflector. *36th Congress of International Astronautical Federation Proceedings*, (IAF-85-400), 1985.
- [15] M.C. Bemasconi and S. Koese. The space-rigidized thermal shield for the esa far-infrared space telescope. *3rd European Symposium on Space Thermal Control and Life Support Systems*, (ESP-288):165–173, 1988.
- [16] M.C. Bemasconi, E. Pagana, and G.G. Reibaldi. Large inflatable, space-rigidized antenna reflectors: Land mobile services development. *38th Congress of International Astronautical Federation Proceedings*, (IAF-87-315), 1987.
- [17] J. Han and C. Kim. Low earth orbit space environment simulation and its effects on graphite/epoxy composites. *Journal of Composite Structures*, In Press, 2004.
- [18] D.P. Cadogan and S.E. Scarborough. Rigidizable materials for use in gossamer space inflatable structures. *42nd AIAA SDM Conference Proceedings*, (AIAA-2001-1417), 2001.
- [19] M. Chanda. *Advanced Polymer Chemistry: A Problem Solving Guide*. Marcel Dekker, Inc., New York, NY, 2000.
- [20] D. Cadogan, M. Grahne, and M. Mikulas. Inflatable space structures: A new paradigm for space structure design. *49th International Astronautical Congress Proceedings*, (IAF-98-I.1.02), 1998.
- [21] K. Guidanean and D. Lichodziejewski. An inflatable rigidizable truss structure based on new sub-tg polyurethane composites. *43rd AIAA SDM Conference Proceedings*, (AIAA-02-1593), 2002.
- [22] S. Schwartz, R.W. Jones, and L.B. Keller. Ultraviolet and heat rigidization of inflatable

- space structures. *Aerospace Expandable Structures Conference Transactions*, pages 369–380, 1963.
- [23] R.E. Allred, A.E. Hoyt, and L.A. Harrah. Light curing rigidizable inflatable wing. *45th AIAA SDM Conference Proceedings*, (AIAA-2004-1809), 2004.
- [24] K. Guidanean and G. Veal. An inflatable rigidizable calibration optical sphere. *44th AIAA SDM Conference Proceedings*, (AIAA-2003-1899), 2003.
- [25] D. Lichodziejewski, G. Veal, and B. Derbès. Spiral wrapped aluminum laminate rigidization technology. *43rd AIAA SDM Conference Proceedings*, (AIAA-2002-1701), 2002.
- [26] M. Tinker, A. Schnell, and L. Leigh Jr. Deployment, foam rigidization, and structural characterization of inflatable thin-film booms. *43rd AIAA SDM Conference Proceedings*, (AIAA-2002-1376), 2002.
- [27] K. Guidanean and G. Williams. An inflatable rigidizable truss structure with complex joints. *43rd AIAA SDM Conference Proceedings*, (AIAA-98-2105), 2002.
- [28] E. Sancaktar and et al. Electric resistive heat curing of the fiber matrix in graphite/epoxy composites. *ASME Journal of Mechanical Design*, 115:53–60, 1993.
- [29] B. Ramakrishnan, L. Zhu, and R. Pitchumani. Curing of composites using internal resistive heating. *ASME Journal of Manufacturing Science and Engineering*, 122:124–131, 2000.
- [30] R. Chugh and D. Chung. Flexible graphite as a heating element. *Carbon*, 40:2285–2289, 2002.
- [31] A. Naskar and D. Edie. Consolidation of reactive ULTEM powder coated carbon fiber tow for space structure composites by resistive heating. *Journal of Composite Materials*, In press, 2005.
- [32] Wikipedia: The Free Encyclopedia. http://en.wikipedia.org/wiki/Georg_ohm, 2005.
- [33] F. Incropera and D. DeWitt. *Fundamentals of Heat and Mass Transfer, 5th Ed.* John Wiley & Sons, Inc., New York, NY, 2002.

- [34] Wikipedia: The Free Encyclopedia. http://en.wikipedia.org/wiki/James_Joule, 2005.
- [35] P. Tipler and G. Mosca. *Physics for Scientists and Engineers, 5th Ed.* W.H. Freeman and Company, New York, NY, 2004.
- [36] D. Zill and M. Cullen. *Differential Equations with Boundary-Value Problems, 4th Ed.* Brooks/Cole Publishing Co., Pacific Grove, CA, 1997.
- [37] V. VanDoren. Understanding pid control. *Control Engineering*, 47(6):53–56, 2000.
- [38] J.G. Ziegler and N.B. Nichols. Optimum settings for automatic controllers. *ASME Transactions*, 64:759–768, 1942.
- [39] J.G. Ziegler and N.B. Nichols. Process lags in automatic control circuits. *ASME Transactions*, 65:433–444, 1943.
- [40] G. Franklin, J. Powell, and A. Emami-Naeini. *Feedback Control of Dynamic Systems, 2nd Ed.* Addison-Wesley Publishing, Reading, MA, 1991.
- [41] R. Dorf and R. Bishop. *Modern Control Systems, 9th Ed.* Prentice-Hall, Inc., Upper Saddle River, NJ, 2001.
- [42] K. Potter. *An Introduction to Composite Products.* Chapman & Hall, London, UK, 1997.
- [43] T. S. Jones. *Handbook of Composites*, chapter Chapter 38 - Nondestructive Evaluation Methods for Composites, pages 838–856. Chapman & Hall, 1998.
- [44] T. Jones and H. Berger. Large area thermographic inspection of grp composite marine vessel hulls. *Proceedings of the SPIE*, 1933:197–206, 1993.
- [45] L. Favro, P. Kuo, and R. Thomas. Thermal-wave imaging of composites and polymers. *Proceedings of the SPIE*, 2245:90–94, 1994.
- [46] T. Sakagami and K. Ogura. Thermographic ndt based on transient temperature field under joule effect heating. *Proceedings of the SPIE*, 2245:120–130, 1994.
- [47] M. Eto, T. Ishii, T. Inagaki, and Y. Okamoto. Infrared radiation properties of the carbon-carbon composite and their application to nondestructive detection of its defects. *Carbon*, 40:285–294, 2002.

- [48] GE Plastics. Ultem PEI Resin Product Guide. <http://www.geplastics.com/gep/Plastics>, 2005.
- [49] R. Norton. *Machine Design: An Integrated Approach, 2nd Ed.* Prentice-Hall, Inc., Upper Saddle River, NJ, 2000.
- [50] G. Odian. *Principles of Polymerization, 4th Ed.* John Wiley & Sons, Inc., Hoboken, NJ, 2004.
- [51] R. L. Ott and M. Longnecker. *An Introduction to Statistical Methods and Data Analysis, 5th Ed.* Duxbury Thomson Learning, Pacific Grove, CA, 2001.
- [52] B. Derbés. Case studies in inflatable rigidizable structural concepts for space power. *37th AIAA Aerospace Sciences Meeting*, (AIAA-99-1089), 1999.
- [53] C. R. Sandy. Next generation space telescope inflatable sunshield development. *2000 IEEE Aerospace Conference Proceedings*, 6:505–519, 2000.
- [54] H. Tsunoda and Y. Senbokuya. Rigidizable membranes for space inflatable structures. *43rd AIAA Structural Dynamics and Materials Conference*, (AIAA-2002-1367), 2002.