

# Bibliography

## Chapter 1: Introduction

1. P. Aknin, D. Placko, and J.-B. Ayasse, *Eddy Current Sensors for the measurement of a lateral displacement. Applications in the railway domain*, Sensors and Actuators (A), vol. 31, pp. 17, 1992.
2. H. Clergeot, D. Placko, and J. M. Detriche, *Electrical Proximity Sensors*, Sensors and Systems for Advanced Robots, NATO ASI Series, vol. 43, pp. 295, 1986.
3. H. L. Libby, *Introduction to Electromagnetic Nondestructive Test Methods*, Wiley-Interscience, 1971.
4. V. D. Miner, Master's Report: "*Design of Experimental Slider Bearing System for DARPA Project 'Journal and Thrust Bearings with Actively Deformable Surfaces'*," The University of Texas at Austin, 1993.
5. I. R. Sinclair, *Sensors and Transducers: A guide for technicians*, Butterworth-Heinemann Ltd., Oxford (England), 1992.

## Chapter 2: Single Coil Design

1. P. Bitsindou, P. Guillaume, G. Delaunay, and G. Villermain-Lecolier, *Detection of Holes, Rivets or Screws Fixed on a Metal Sheet Using a Flat Magnetic Sensor*, Sensors and Actuators (A), vol. 24, pp. 181, 1990.
2. H. Clergeot, D. Placko, and J. M. Detriche, *Electrical Proximity Sensors*, Sensors and Systems for Advanced Robots, NATO ASI Series, vol. 43, pp. 295, 1986.
3. H. E. Bryan, *Printed Inductors and Capacitors*, Tele-tech and Electronic Industries, pp. 68, December, 1955.
4. J. G. Coffin, *The Influence of Frequency upon the self-inductance of coils*, Bul-

- letin of the Bureau of Standards, vol. 2, pp. 275, 2 1906.
5. H. G. Dill, *Designing Inductors for Thin-film Applications*, Electronic Design, pp. 52, February, 1964.
  6. F. R. Gleason, "*Thin Film Microelectronic Inductors*," National Electronics Conference, Chicago, 1964, pp. 197.
  7. H. M. Greenhouse, *Design of Planar Rectangular Microelectronic Inductors*, IEEE Transactions on Parts, Hybrids, and Packaging, vol. 10, pp. 101, 1974.
  8. F. W. Grover, The calculation of Inductance of Single Layer Coils and Spirals wound with wire of large cross section, Proceedings of the Institute of Radio Engineers, vol. 17, pp. 2053, 1929.
  9. F. W. Grover, *Inductance Calculations: Working Formulas and Tables*, New York: D. Van Nostrand Company, Inc., 1946.
  10. C. R. Paul, Introduction to Electromagnetic Compatibility, New York: John Wiley & Sons, Inc., 1992.
  11. C. Huai-ning, *An Investigation of Microweighing with an Eddy Current Transducer*, Review of Scientific Instruments, vol. 59, pp. 2297, 1988.
  12. D. M. Krafcsik, and D. E. Dawson, *A Closed-form Expression for representing the distributed nature of the spiral inductor*, IEEE Proceedings of the 1986 Microwave and Millimeter-wave Monolithic Circuits Symposium, vol. pp. 87, 1986.
  13. H. L. Libby, *Introduction to Electromagnetic Nondestructive Test Methods*, Wiley-Interscience, 1971.
  14. A. Oliveli, *Optimized Miniature Thin-film Planar Inductors, compatible with Integrated Circuits*, IEEE Transactions on Parts, Materials, and Packaging, vol. 5, pp. 71, 1969.
  15. A. Rand, *Inductor Size vs Q: A Dimensional Analysis*, IEEE Transactions on

Component Parts, vol. 10, pp. 31, 1963.

16. E. B. Rosa, *Calculation of the Self-Inductance of Single-Layer Coils*, Bulletin of the Bureau of Standards, vol. 2, pp. 161, 1906.
17. E. B. Rosa, *On the Geometrical Mean Distances of Rectangular Areas and the Calculation of Self-Inductance*, Bulletin of the Bureau of Standards, vol. 3, pp. 1, 1907.
18. P. M. Rostek, *Avoiding wiring-inductance problems*, Electronic Design, pp. 62, December, 1974.
19. W. H. Hayt, *Engineering Electromagnetics*, McGraw-Hill Book Company, 1988.
20. A. E. Ruehli, *Inductance calculation in a complex integrated circuit environment*, IBM J. Research and development, 16, pp. 470, 1972.

### Chapter 3: Two Coil Design

1. E. Tuncer, and D. P. Neikirk, *Highly Accurate Quasi-static Modeling of Microstrip Line Over Lossy Substrates*, IEEE Microwave and Guided Wave Letters, vol. 2, pp. 409, 1992.
2. P. W. Tuinenga, *Spice: A guide to Circuit Simulation and Analysis using PSpice*, New Jersey: Prentice Hall, 1992.
3. H. L. Libby, *Introduction to Electromagnetic Nondestructive Test Methods*, Wiley-Interscience, 1971.
4. Discussions with D. Neikirk, 1994
5. J. C. Chan, *On-Line Ultrasonic Monitoring of Bearing Wear*, Turbomachinery International, pp. 12, Nov/Dec, 1990.
6. E. Abbaspour-Sani, R.-S. Huang, and C. Y. Kwok, *A Novel Electromagnetic*

*Accelerometer*, Electron Device Letters, vol. 15, pp. 272, 8 1994.

#### **Chapter 4: Fabrication Issues**

1. L. Ristic, *Sensor Technology and Devices*, Norwood, MA: Artech House, INC., 1994.
2. K. E. Petersen, *Silicon as a Mechanical Material*, Proceedings of the IEEE, vol. 70, pp. 39, 1982.
3. J. J. W. Faust, and E. D. Palik, *Study of the Orientation Dependent Etching and Initial Anodization of Silicon in Aqueous KOH*, Journal of the Electrochemical Society: Solid-State Science and Technology, vol. 130, pp. 1413, 6 1983.
4. A. Reisman, M. Berkenblit, S. A. Chan, F. B. Kaufman, and D. C. Green, *The Controlled Etching of Silicon in Catalyzed Ethylenediamine-Pyrocatechol-Water Solutions*, Journal of the Electrochemical Society: Solid State Science and Technology, vol. 126, pp. 1406, 8 1979.
5. E. D. Palik, *Handbook of Optical Constants*, Florida: Academic Press, INC., 1985.