Referências bibliográficas

1 ÉDEL'MAN, V.. **Electrons in bismuth**. Advances in Physics, 25:555–613, nov 1976.

2 WILSON, A. H.. **The theory of metals. i**. Proceedings of the Royal Society of London A: Mathematical, Physical and Engineering Sciences, 138(836):594–606, 1932.

3 LIU, Y.; ALLEN, R. E.. **Electronic structure of the semimetals Bi and Sb**. Phys. Rev. B, 52:1566–1577, Jul 1995.

4 SMITH, G. E.; BARAFF, G. A. ; ROWELL, J. M.. **Effective g factor of electrons and holes in bismuth**. Phys. Rev., 135:A1118–A1124, Aug 1964.

5 WELLS, J. W.; DIL, J. H.; MEIER, F.; LOBO-CHECA, J.; PETROV, V. N.; OSTERWALDER, J.; UGEDA, M. M.; FERNANDEZ-TORRENTE, I.; PASCUAL, J. I.; RIENKS, E. D. L.; JENSEN, M. F. ; HOFMANN, P.. **Nondegenerate metallic states on Bi(114): A one-dimensional topological metal**. Phys. Rev. Lett., 102:096802, Mar 2009.

6 BEHNIA, K.; BALICAS, L. ; KOPELEVICH, Y.. **Signatures of electron fractionalization in ultraquantum bismuth**. Science, 317(5845):1729–1731, 2007.

7 ROBERTS, B. W.. **Survey of superconductive materials and critical evaluation of selected properties**. Journal of Physical and Chemical Reference Data, 5(3):581–822, 1976.

8 BUCKEL, W.. **Elektronenbeugungs-aufnahmen von dünnen metallschichten bei tiefen temperaturen**. Zeitschrift für Physik, 138(2):136–150, 1954.

9 TIAN, M.; WANG, J.; KUMAR, N.; HAN, T.; KOBAYASHI, Y.; LIU, Y.; MALLOUK, T. E. ; CHAN, M. H. W.. **Observation of superconductivity in granular Bi nanowires fabricated by electrodeposition**. Nano Letters, 6(12):2773–2780, 2006. PMID: 17163704.

10 WEITZEL, B.; MICKLITZ, H.. **Superconductivity in granular systems built from well-defined rhombohedral Bi-clusters: Evidence for Bi-surface superconductivity**. Phys. Rev. Lett., 66:385–388, Jan 1991.

11 HAKONEN, P. J.; NUNES, JR., G.. **Electrical transport in bismuth whiskers at millikelvin temperatures**. Journal of Physics Condensed Matter, 3:7153–7160, Sept. 1991.

12 PRAKASH, O.; KUMAR, A.; THAMIZHAVEL, A. ; RAMAKRISHNAN, S.. **Evidence for bulk superconductivity in pure bismuth single crystals at ambient pressure**. Science, 355(6320):52–55, 2017.

13 MOODERA, J.; MESERVEY, R.. **Superconducting phases of Bi and Ga induced by deposition on a Ni sublayer**. Physical Review B, 42(1):179, 1990.

14 ESAKI, L.; STILES, P. J.. **Study of electronic band structures by tunneling spectroscopy: Bismuth**. Phys. Rev. Lett., 14:902–904, May 1965.

15 LECLAIR, P.; MOODERA, J. S.; PHILIP, J. ; HEIMAN, D.. **Coexistence of ferromagnetism and superconductivity in** $\mathrm{Ni/Bi}$ **bilayers**. Phys. Rev. Lett., 94:037006, Jan 2005.

16 SIVA, V.; SENAPATI, K.; SATPATI, B.; PRUSTY, S.; AVASTHI, D. K.; KANJILAL, D. ; SAHOO, P. K.. **Spontaneous formation of superconducting** $\mathbf{NiBi_3}$ **phase in Ni-Bi bilayer films**. Journal of Applied Physics, 117(8):083902, 2015.

17 ZHU, X.; LEI, H.; PETROVIC, C. ; ZHANG, Y.. **Surface-induced magnetic fluctuations in a single-crystal** $\mathbf{NiBi_3}$ **superconductor**. Phys. Rev. B, 86:024527, Jul 2012.

18 PETROSYAN, V. I.; MOLIN, V. N.; VASIN, O. I.; SKRIPKINA, P. A.; STENIN, S. I. ; BATYEV, E. G.. **Superconductivity in polycrystalline bismuth films**. Soviet Journal of Experimental and Theoretical Physics, 39:485, sep 1974.

19 OTA, H.; SAKAI, K.; MURAKAMI, H. ; AOKI, R.. **Charge and vortex kosterlitz–thouless transitions in Bi-superconducting mixed crystal thin films**. Physica C: Superconductivity, 317–318:661 – 665, 1999.

20 FUJIME, S.. **Electron diffraction at low temperature ii. radial distribution analysis of metastable structure of metal films prepa**

ed by low temperature condensation. Japanese Journal of Applied Physics, 5(9):764, 1966.

21 KURTI, N.; SIMON, F.. **Experiments at very low temperatures obtained by the magnetic method. ii. new supraconductors**. Proceedings of the Royal Society of London A: Mathematical, Physical and Engineering Sciences, 151(874):610–623, 1935.

22 CAVA, R.; JI, H.; FUCCILLO, M.; GIBSON, Q. ; HOR, Y.. **Crystal structure and chemistry of topological insulators**. Journal of Materials Chemistry C, 1(19):3176–3189, 2013.

23 FESCHOTTE, P.; ROSSET, J.-M.. **Equilibres de phases dans le systeme binaire nickel-bismuth**. Journal of the Less Common Metals, 143(1):31 – 37, 1988.

24 LEE, M. S.; CHEN, C. ; KAO, C. R.. **Formation and absence of intermetallic compounds during solid-state reactions in the Ni-Bi system**. Chemistry of Materials, 11(2):292–297, 1999.

25 LIDIN, S.; PETRICEK, V.; STENBERG, L.; FURUSETH, S.; FJELLVÅG, H. ; LARSSON, A.-K.. **The incommensurately modulated structure of NiBi**. Solid State Sciences, 2(3):353 – 363, 2000.

26 FUJIMORI, Y.; ICHI KAN, S.; SHINOZAKI, B. ; KAWAGUTI, T.. **Superconducting and normal state properties of $NiBi_3$**. Journal of the Physical Society of Japan, 69(9):3017–3026, 2000.

27 PARK, S.; KANG, K.; HAN, W. ; VOGT, T.. **Synthesis and characterization of Bi nanorods and superconducting NiBi particles**. Journal of Alloys and Compounds, 400(1-2):88 – 91, 2005.

28 OKAMOTO, H.. **Bi-Ni (bismuth-nickel)**. Journal of Phase Equilibria and Diffusion, 33(6):492–492, 2012.

29 DUCHENKO, O. V.; DYBKOV, V. I.. **Determination of $NiBi_3$ reaction-diffusion constants in Ni-Bi couples**. Journal of Materials Science Letters, 14(24):1725–1727, 1995.

30 DYBKOV, V. I.. **Evaluation of reaction kinetics in planar couples**. Journal of Materials Science Letters, 9(12):1459–1462, 1990.

31 GONG, X. X.; ZHOU, H. X.; XU, P. C.; YUE, D.; ZHU, K.; JIN, X. F.; TIAN, H.; ZHAO, G. J. ; CHEN, T. Y.. **Possible p-wave superconductivity in epitaxial Bi/Ni bilayers**. Chinese Physics Letters, 32(6):067402, 2015.

32 WAGNER, C.. **The evaluation of data obtained with diffusion couples of binary single-phase and multiphase systems**. Acta Metallurgica, 17(2):99 – 107, 1969.

33 VAN LOO, F.. **Multiphase diffusion in binary and ternary solid-state systems**. Progress in Solid State Chemistry, 20(1):47 – 99, 1990.

34 VAN LOO, F.. **On the determination of diffusion coefficients in a binary metal system**. Acta Metallurgica, 18(10):1107 – 1111, 1970.

35 ONNES, H. K.. **The resistance of pure mercury at helium temperatures**. Commun. Phys. Lab. Univ. Leiden, 12:120, 1911.

36 MEISSNER, W.; OCHSENFELD, R.. **Ein neuer effekt bei eintritt der supraleitfähigkeit**. Naturwissenschaften, 21(44):787–788, 1933.

37 LONDON, F.; LONDON, H.. **Supraleitung und diamagnetismus**. Physica, 2(1):341 – 354, 1935.

38 ROSENSTEIN, B.; LI, D.. **Ginzburg-landau theory of type II superconductors in magnetic field**. Rev. Mod. Phys., 82:109–168, Jan 2010.

39 GINZBURG, V. L.; LANDAU, L. D.. **On the theory of superconductivity**. Zh. Eksp. Teor. Fiz., 20:1064–1082, 1950.

40 BUCKEL, W.; KLEINER, R.. **Superconductivity: fundamentals and applications**. Physics textbook. Wiley-VCH, 2004.

41 POOLE, C.; FARACH, H. A.; CRESWICK, R. J. ; PROZOROV, R.. **Superconductivity**. Academic Press, 2007.

42 ASHCROFT, N.; MERMIN, N.. **Solid state physics**. Science: Physics. Saunders College, 1976.

43 ABRIKOSOV, A. A.. **Nobel lecture: Type-II superconductors and the vortex lattice**. Rev. Mod. Phys., 76:975–979, Dec 2004.

44 BARDEEN, J.; COOPER, L. N. ; SCHRIEFFER, J. R.. **Theory of superconductivity**. Phys. Rev., 108:1175–1204, Dec 1957.

45 ABRIKOSOV, A. A.. **On the Magnetic properties of superconductors of the second group**. Sov. Phys. JETP, 5:1174–1182, 1957. [Zh. Eksp. Teor. Fiz.32,1442(1957)].

46 COOPER, L. N.. **Bound electron pairs in a degenerate fermi gas**. Phys. Rev., 104:1189–1190, Nov 1956.

47 EDELSTEIN, A.; CAMMARATRA, R.. **Nanomaterials: Synthesis, Properties and Applications, Second Edition**. Institute of Physics. Series in micro and nanoscience and technology. Taylor & Francis, 1998.

48 BUHRO, W. E.; COLVIN, V. L.. **Semiconductor nanocrystals - shape matters**. Nature Materials, 2(3):138–139, 2003.

49 BARDEEN, J.; COOPER, L. N. ; SCHRIEFFER, J. R.. **Microscopic theory of superconductivity**. Phys. Rev., 106:162–164, Apr 1957.

50 NORTON, D. P.. **Pulsed Laser Deposition of Complex Materials: Progress Toward Applications**, p. 1–31. John Wiley & Sons, Inc., 2006.

51 DWIVEDI, A.. **Recent advances in pulsed laser ablated plasma plumes: A review**. Surface Review and Letters, 14(01):57–69, 2007.

52 KREBS, H.-U.; WEISHEIT, M.; FAUPEL, J.; SÜSKE, E.; SCHARF, T.; FUHSE, C.; STÖRMER, M.; STURM, K.; SEIBT, M.; KIJEWSKI, H.; NELKE, D.; PANCHENKO, E. ; BUBACK, M.. **Pulsed Laser Deposition (PLD) – A Versatile Thin Film Technique**, p. 505–518. Springer Berlin Heidelberg, 2003.

53 MILLER, J. C.. **Laser Ablation - Principles and Applications**, volumen 28. Springer-Verlag Berlin Heidelberg, 1994.

54 BENNETT, J. M.; DANCY, J. H.. **Stylus profiling instrument for measuring statistical properties of smooth optical surfaces**. Appl. Opt., 20(10):1785–1802, May 1981.

55 WILLIAMS, D.; CARTER, C.. **Transmission electron microscopy**. Springer, 2009.

56 ERNST, F.; RÜHLE, M.. **High-Resolution Imaging and Spectrometry of Materials**, volumen 50. Springer Berlin Heidelberg, 2003.

57 HAWKES, P.; KASPER, E.. **Principles of Electron Optics: Applied geometrical optics**. Principles of Electron Optics. Academic Press, 1989.

58 EDINGTON, J.. **Practical electron microscopy in materials science**. Techbooks, 1991.

59 SPENCE, J. C.. **High-resolution electron microscopy**. OUP Oxford, 2013.

60 SCOFIELD, J. H.. **AC method for measuring low-frequency resistance fluctuation spectra**. Review of Scientific Instruments, 58(6):985–993, 1987.

61 JAMES, D. W. F.; JONES, R. G.. **On the four-probe method of resistivity measurement**. Journal of Scientific Instruments, 42(4):283, 1965.

62 FONER, S.. **Vibrating sample magnetometer**. Review of Scientific Instruments, 27(7):548–548, 1956.

63 FONER, S.. **Versatile and sensitive vibrating sample magnetometer**. Review of Scientific Instruments, 30(7):548–557, 1959.

64 JARDIM, R. F.; BEN-DOR, L.; STROUD, D. ; MAPLE, M. B.. **Granular behavior in polycrystalline $\mathrm{Sm}_{2-x}\mathrm{Ce}_x\mathrm{CuO}_{4-y}$ compounds**. Phys. Rev. B, 50:10080–10087, Oct 1994.

65 NETO, A. H. C.; GUINEA, F.. **Superconductivity, josephson coupling, and order parameter symmetry in striped cuprates**. Phys. Rev. Lett., 80:4040–4043, May 1998.

66 SHARMA, R. G.; KRISHNA, M. M. ; NARLIKAR, A. V.. **Two-step superconducting transition in Cu-V-Si alloys**. Journal of Physics C: Solid State Physics, 13(2):L21, 1980.

67 XING, Y. T.; MICKLITZ, H.; RAPPOPORT, T. G.; MILOŠEVIĆ, M. V.; SOLÓRZANO-NARANJO, I. G. ; BAGGIO-SAITOVITCH, E.. **Spontaneous vortex phases in superconductor/ferromagnet nanocomposites**. Phys. Rev. B, 78(22):224524, 2008.

68 LIU, L. Y.; XING, Y. T.; FRANCESCHINI, D. F. ; SOLÓRZANO, I. G.. **HRTEM of amorphous and crystalline Bi nanoparticles prepared by pulsed laser deposition**. Microscopy and Microanalysis, 22(S3):2004–2005, 007 2016.

69 HERRING, C.. **Some theorems on the free energies of crystal surfaces**. Phys. Rev., 82:87–93, Apr 1951.

70 BAI, G.; LI, R.; XU, H.; XIA, Y.; LIU, Z.; LU, H. ; YIN, J.. **The thickness dependence of the crystallization behavior in sandwiched amorphous $\mathbf{Ge_2Sb_2Te_5}$ thin films**. Physica B: Condensed Matter, 406(23):4436 – 4439, 2011.

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Artigo da Tese Publicado em Periódico

1. L.Y. Liu, U.D. ChacónHernandez, Y.T. Xing, N.M. Suguihiro, D. Haeussler, E. Baggio-Saitovitch, W. Jäger, I.G. Solórzano, Effect of interface roughness on superconducting transition temperatures of Nb/Co multilayers, Journal of Magnetism and Magnetic Materials 401(2016)242–247. doi: http://dx.doi.org/10.1016/j.jmmm.2015.10.048.

2. L.Y. Liu, Y. T. Xing, D. F. Franceschini and I. G. Solórzano, HRTEM of Amorphous and Crystalline Bi Nanoparticles Prepared by Pulsed Laser Deposition, Microscopy and Microanalysis, 22(S3), pp. 2004-2005 (2016). doi:10.1017/S1431927616010862.

3. Xing, Y.T., Liu, L.Y., Franceschini, D.F., Nunes, W.C., Smith, D.J. and Solorzano, I.G., HRTEM and HRSTEM Study of Nanostructured Materials Prepared by Pulsed Laser Deposition, Microscopy and Microanalysis, 22(S3), pp. 2012–2013 (2016). doi: 10.1017/S1431927616010904.