



[Mechanical Engineering](#) > YOSHIDA Masashi



**YOSHIDA Masashi**

Organization	Mechanical Engineering
Position	Professor
Academic Title	Ph.D.
Research Fields	Non-Destructive Evaluation, Super Conductor, New Materials

## << Research Subjects >>

1. [Mechanical Properties of Composite Materials](#)
2. [Non-Destructive Evaluation by Ultra Sonic](#)
3. [New Materials](#)

## << Academic Activities >>

### Papers and Notes

1. [M. Yoshida and T. Yumitate: "Mechanical Properties of TiB<sub>2</sub>-Al<sub>3</sub>Ti and TiB<sub>2</sub>-\(Al,Ni\)<sub>3</sub>Ti Composites", Mater. Trans. Vol.53, No.11, pp.1933-1937 \(2012\).](#)
2. [M.Yoshida: "Influence of Sintering Temperature on the Microstructure of TiB<sub>2</sub> Sintered with Al<sub>3</sub>Ti Additive", Mater. Trans. Vol.53, No.7, pp.1648-1651 \(2012\).](#)
3. [M.Yoshida and T.Asano: "A new method to measure the oxide layer thickness of steels" Journal of Nondestructive Evaluation 22, pp11-21 \(2003\)](#)
4. [H.Nishida, H.Yamaguchi and M.Yoshida : "Use of Electromagnetic Acoustic Resonance Method to Detect Micro-Voids Via Evaluation of Ultrasonic Wave Attenuation Coefficient of SUS304 Steel Fabricated by Hot Isostatic Press" JSME International Journal A 44, pp8-16 \(2001\)](#)
5. [M.Yoshida, A.Seki, Y.Shirai and T.Ohmi : "Passivation of Stainless Steel by □-Al<sub>2</sub>O<sub>3</sub> Films Resistant to Ozonized Water" J.Vacuum Sci. Technol. A 17 pp1059-1065 \(1999\)](#)
6. [T.Ohmi, M.Yoshida, Y.Matsudaira, Y. Shirai, O.Nakamura, M. Gozuyuki and Y.Hashimoto : "Development of a stainless steel tube resistant to corrosive Cl<sub>2</sub> gas for use in semiconductor manufacturing" J. Vac. Sci. Technol. B 16 pp2789-2795 \(1998\)](#)
7. [M.Yoshida, N.Hara, T.Takada, and A.Seki : "Structure and Dielectric Properties of \(Ca<sub>1-x</sub>Nd<sub>2x/3</sub>\)TiO<sub>3</sub>" Jpn. J. Appl. Phys. 36, pp 6818-6823 \(1997\)](#)
8. [M.Yoshida:"Melt State of Bi<sub>2</sub>Sr<sub>x</sub>Ca<sub>3-x</sub>Cu<sub>2</sub>O<sub>z</sub> with 1.5](#)
9. [M.Yoshida and A.Endo : "Crystal Growth of Bi<sub>2</sub>212 in the Sr-Enriched, Ca-Reduced Compositional Range" J. Supercond. 7 pp87-89 \(1994\)](#)
10. [M.Yoshida , A.Endo and N. Hara : "Fabrication of Two Tesla Magnet Using Bi<sub>2</sub>212 Ag-Sheathed Tapes" Jpn. J. Appl. Phys.33, ppL421-L423 \(1994\)](#)
11. [M.Yoshida and A.Endo : "Improvement of J<sub>c</sub> of Ag-Sheathed Bi<sub>2</sub>212 Tapes Using Melt Growth Technique under Reduced Oxygen Partial Pressure" Jpn. J. Appl. Phys.32 ppL1509-L1512. \(1993\)](#)
12. [H. Sato, T. Ido, S.Uchida, S.Tajima, M.Yoshida, K.Tanabe, K.Tatsuhara and N. Miura : "Superconducting and Normal States of Ba<sub>1-x</sub>K<sub>x</sub>BiO<sub>3</sub> Studied with Use of High-Quality Thin Films" Phys. Rev. B48, pp6617-6625 \(1993\)](#)
13. [S.Tajima, Y.Mizuo, M.Yoshida, T.Wada, Y.Yaegashi, T.Takata, M.Kagiya, N.Koshizuka, H.Yamauchi, K.Tamasaku and S.Uchida : "Optical Study of the Superconductor- nonsuperconductor Transition in \(L<sub>1</sub>,Ce\)<sub>2</sub>\(Ba,L<sub>2</sub>\)<sub>2</sub> Cu 3O<sub>8+z</sub>\(L<sub>1</sub> and L<sub>2</sub>=Rare Earths\)" Phys. Rev. B47, pp12126-12133 \(1993\)](#)
14. [S. Gotoh, N.Koshizuka, M.Yoshida, H. Fujimoto, M. Murakami, H. Izumi and K. Ohata : "Direct Observation of Magnetic Flux Behavior in High-T<sub>c</sub> Oxide Superconductors" IEEE Translation J. on Magn. in Japan, 7, pp525-532 \(1992\)](#)
15. [M.Yoshida, S.Tajima, N.Koshizuka, S.Tanaka, S.Uchida, and T.Itoh : "Two-Magnon and Two-Phonon Excitations in Some Parent Insulating Compounds of the High-T<sub>c</sub> Cuprates" Phys. Rev. B46, pp6505-6510 \(1992\)](#)
16. [S.Tajima, M.Yoshida, N.Koshizuka, H.Sato and S.Uchida : "Raman-Scattering Study of the Metal-Insulator Transition in Ba<sub>1-x</sub>K<sub>x</sub>BiO<sub>3</sub>" Phys. Rev. B46 pp1232-1235 \(1992\)](#)
17. [H.Fujimoto, M.Murakami, S.Gotoh, K.Yamaguchi, M.Yoshida, T.Takata, N.Koshizuka and S.Tanaka: "Critical Currents and](#)

- Magnetization of YBCO Prepared by MPMG Process" Supercond. Sci. Technol. 5, ppS93-S96 (1991)
18. S. Gotoh, N.Koshizuka, M.Yoshida, M. Murakami, H. Fujimoto and S. Tanaka: "Direct Observation of Flux Behavior in Melt Processed YBaCuO Using the Faraday Effect of Iron Garnet Films", Supercond. Sci. Technol. 4 ppS226-S228 (1991)
  19. M.Murakami, M.Yoshida, H.Fujimoto, S.Gotoh, N.Koshizuka and S.Tanaka: "Detection of Oxygen Deficient Regions in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>x</sub> Superconductors by Polarized Optical Microscopy" Jpn. J. Appl. Phys. 30, ppL796-L797 (1991)
  20. M.Yoshida, S.Tajima, N.Koshizuka, S.Tanaka, S.Uchida and S.Ishibashi: "Optical Phonons of Ca<sub>1.8</sub>Sr<sub>0.2</sub>Cu<sub>3</sub>O<sub>3</sub> with the Cu-O Chain Structure" Phys. Rev. B44 pp11997-12002 (1991)
  21. M.Yoshida, S.Tajima, Y.Mizuo, T.Wada, A.Ichinose, Y.Yaegashi, N.Koshizuka, H.Yamauchi and S.Tanaka : "Phonon Scattering Spectra of (Eu<sub>2</sub>/3Ce<sub>1</sub>/3)<sub>2</sub>(Ba<sub>2</sub>/3Eu<sub>1</sub>/3)<sub>2</sub>Cu<sub>3</sub>O<sub>9</sub> and (Er<sub>2</sub>/3Ce<sub>1</sub>/3)<sub>2</sub>(Ba<sub>2</sub>/3La<sub>1</sub>/3)<sub>2</sub>Cu<sub>3</sub>O<sub>9</sub>" Phys. Rev. B44 pp782-788 (1991)
  22. M.Yoshida, S.Tajima, Y.Mizuo, T.Wada, Y.Yaegashi, A.Ichinose, H.Yamauchi, N.Koshizuka and S.Tanaka: "Raman Scattering Spectra of (Sm<sub>2</sub>/3Ce<sub>1</sub>/3)<sub>2</sub>(Ba<sub>2</sub>/3Sm<sub>1</sub>/3)<sub>2</sub>Cu<sub>3</sub>O<sub>9</sub>" J. Phys. Soc. Jpn. 60 pp1204-1207 (1991)
  23. I.Tomeno, M.Yoshida, K.Ikeda, K.Tai, K.Takamuku, N.Koshizuka, S.Tanaka, K.Oka and H.Unoki: "Raman Scattering from Spin Fluctuations in Pr<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4-y</sub>, Nd<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4-y</sub> and Sm<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4-y</sub>" Phys. Rev. B43, pp3009-3019 (1991)
  24. S.Gotoh, N.Koshizuka, M.Yoshida, M.Murakami and S.Tanaka: "Direct Observation of Flux Behavior in High-Tc Oxide Superconductors Using the Faraday Effect of Iron Garnet Films" Jpn. J. Appl. Phys. 29 ppL1083-L1085 (1990)
  25. M.Yoshida, N.Koshizuka and S.Tanaka: "Magnon-Scattering Spectra of PrBa<sub>2</sub>Cu<sub>3</sub>O<sub>6</sub>, PrBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>, NdBa<sub>2</sub>Cu<sub>3</sub>O<sub>6</sub> and Nd<sub>1.6</sub>Ba<sub>1.4</sub>Cu<sub>3</sub>O<sub>7.3</sub>" Phys. Rev. B42 pp8760-8763 (1990)
  26. M.Yoshida, S.Gotoh, T. Takata, N.Koshizuka and S.Tanaka: "Phonon Raman Scattering of NdBa<sub>2</sub>Cu<sub>3</sub>O<sub>y</sub> and Nd<sub>1.6</sub>Ba<sub>1.4</sub>Cu<sub>3</sub>O<sub>y</sub>" Phys. Rev. B41 pp11689-11692 (1990)
  27. Y.Matsuda, M.Yoshida and S.Hinotani: "Raman Studies of Orthorhombic YBa<sub>2-x</sub>Sr<sub>x</sub>Cu<sub>3</sub>O<sub>7-y</sub>" Jpn. J. Appl. Phys. 28 pp L1128-1130 (1989)
  28. M.Yoshida: "Lattice Stability of the Bi<sub>4</sub>(Sr<sub>1-y</sub>Ca<sub>y</sub>)<sub>6</sub>Cu<sub>4</sub>O<sub>x</sub> Structure under the Change of Sr-Ca Ratio" Jpn. J.Appl.Phys. 27 pp L2044-L2047 (1988)
  29. M. Yoshida: "Characteristics in the Growth of the YBa<sub>2</sub>Cu<sub>3</sub>O<sub>x</sub> and YBaSrCu<sub>3</sub>O<sub>x</sub> Crystalline Films" Jpn. J.Appl.Phys.27 pp L1248-1250 (1988)
  30. K.Nakamura, H.Watanabe, N.Ohno, M.Yoshida and Y.Nakai: "Optical Phonons in Orthorhombic Indium Bromide Studied by Resonant Raman Scattering" J. Phys. Soc. Jpn. 57 pp3641-3646 (1988)
  31. H.Mitsutake, M.Yoshida, K.Nakamura and Y.Nakai: "Resonant Light Scattering in InBr: Intensity Alternation of Multiple LO Phonon Scattering" J. Phys. Soc. Jpn. 55 pp1070-1073 (1986)
  32. N.Ohno, M.Yoshida, K.Nakamura and Y.Nakai: "Multiple LO Phonon Scattering in Indium Iodide" Solid State Commun. 53 pp569-572 (1985)
  33. M.Yoshida, N.Ohno, H.Mitsutake, K.Nakamura and Y.Nakai: "Multiple LO Phonon Scattering in Indium Bromide" J. Phys. Soc. Jpn. 54 pp2754-2761 (1985)
  34. N.Ohno, M.Yoshida, K.Nakamura, J.Nakahara and K.Kobayashi: "Magneto- Reflectance of Excitons in Indium Halides" J. Phys. Soc. Jpn 53 pp 1548-1556 (1984)
  35. M.Yoshida, N.Ohno, H.Watanabe, K.Nakamura and Y.Nakai: "Exciton Transitions in Indium Halides" J.Phys. Soc. Jpn 53, pp 408-418 (1984)
  36. M.Yoshida, N.Ohno, K.Nakamura and Y.Nakai: "Direct and Indirect Exciton Transitions in InBr<sub>1-x</sub> Mixed Crystals" J. Phys. Soc. Jpn. 52 pp1108-1110 (1983).
  37. N.Ohno, M.Yoshida, K.Nakamura and Y.Nakai: "Photoluminescence of Indium Iodide" Solid State Commun. 36. pp775-779 (1980)
  38. K.Nakamura, N.Ohno and M.Yoshida: "Scattering Spectra of Orthorhombic Indium Bromide under Resonant Excitation" Solid State Commun. 36 pp211-214 (1980)
  39. N.Ohno, M.Yoshida, K.Nakamura and Y.Nakai: "Resonant Raman Scattering and Luminescence in Indium Iodides" J. Phys. Soc. Jpn. 49, pp1391-1398 (1980)

## Books

1. M. Yoshida: "Excitons in Indium Halides" Thesis (Kyoto University, 1984)

## Presentations

1. T.Yumitate, S.Ikenaga, M.Yoshida, "Effects of the Addition of Al<sub>3</sub>Ti on the Sintering of refractory TiB<sub>2</sub>", The International Scientific and Technical Conference; Up-to-dates Materials Science and Nanotechnologies, Komsomolsk, Russia, pp326-329., 2010
2. M. Yoshida, "Application of digital image correlation analysis to the study of plastic deformation of BCC iron polycrystals", The International Scientific and Technical Conference; Up-to-dates Materials Science and Nanotechnologies, Komsomolsk, Russia, pp321-325., 2010
3. M.Yoshida, "Effects of Al<sub>3</sub>Ti Addition on the Sintering of TiB<sub>2</sub>", MRS 2010 Fall meeting, Boston, to be published in the MRS 2010 Fall meeting proceedings, 2010
4. M.Yoshida and M.Akiyama: "Meso-scale analysis of Strain Distribution in Poly-crystalline Metals Using Digital Image Correlation Analysis" Proc. 9th Int. Conf. on Computational Plasticity, Barcelona, Spain, pp358-361 (Sep. 5, 2007)
5. M.Yoshida and M.Akiyama: "Strain analysis of Microstructure by Direct Observation on Flat Surface of Metal" Proc. 8th Int. Conf. on Computational Plasticity, Barcelona, Spain, pp595-598 (Sep. 5, 2005)
6. M. Yoshida: "Microwave Properties of Bi<sub>2</sub>212 Thin Films Grown on MgO Single Crystals" Proceedings of the 9th International Symposium on Superconductivity, Sapporo, Japan, pp1117-1120 (Oct. 21, 1996)
7. M.Yoshida: "Critical Current Densities of Ag-sheathed Bi<sub>2</sub>Sr<sub>x</sub>Ca<sub>3-x</sub>Cu<sub>2</sub>O<sub>z</sub> tapes with 1.5
8. M.Yoshida: " Partial Melt State of Bi<sub>2</sub>Sr<sub>x</sub>Ca<sub>3-x</sub>Cu<sub>2</sub>O<sub>z</sub> with 1.5
9. M.Yoshida, A.Endo and N. Hara: "Fabrication of 2-Tesla Magnet Using Bi<sub>2</sub>212 Ag-Sheathed Tapes" Proceedings of the 6th International Symposium on Superconductivity, Hiroshima, Japan pp703-706 (Oct. 26, 1993)
10. N. Hara, M. Yoshida, and S. Nishikida: "Evaluation of Pinning Potential in Bi<sub>2</sub>223 Ag-Sheathed Tape" Proceedings of the 6th International Symposium on Superconductivity, Hiroshima, Japan, pp 661-664 (Oct. 26, 1993)
11. M. Yoshida: "Fabrications of Ag-Sheathed Y-Substituted Bi<sub>2</sub>212 Tapes" Proceedings of the 5th International Symposium on Superconductivity, Kobe, Japan, pp721-724 (Nov. 16, 1992)
12. M.Yoshida, S.Tajima, T. Wada, Y.Mizuo, T.Takata, Y.Yaegashi, A.Ichinose, H. Yamauchi, N.Koshizuka and S. Tanaka: "

[Possibility of Superconductivity Destruction Caused by Neither the Reduction of Hole Concentration nor Impurity Doping" Proceedings of the 2nd ISSP International Symposium on the Physics and Chemistry of Oxide Superconductors, Tokyo, Japan , pp421-423 \(1991\)](#)

13. [M.Yoshida, S.Tajima, N.Koshizuka, S.Tanaka, S.Uchida, and S.Ishibashi:" Electron-Phonon Interaction Associated with Cu-O Bond Investigated by Raman Spectroscopy" Proceedings of the International Conferences on Material and Mechanisms of Superconductivity, Tokyo, Japan, pp971-972 \(1991\)](#)
14. [M.Yoshida, S.Tajima, Y.Mizuo, T.Wada, Y.Yaegashi, A.Ichinose, and N.Koshizuka: " Phonons in \(Sm,Ce\)<sub>2</sub>\(Ba,Sm\)<sub>2</sub>Cu<sub>3</sub>O<sub>x</sub>" Proceedings of the 3rd International Symposium on Superconductivity, Sendai, Japan, pp 215-218 \(Nov. 6, 1990\)](#)
15. [Raman Scattering from Spin Fluctuations in Pr<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4-y</sub>, Nd<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4-y</sub> and Sm<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4-y</sub>](#)
16. [S. Gotoh, N. Koshizuka, M. Yoshida, H.Fujimoto, and M. Murakami: "Dynamical Magnetic Flux Behavior in High-Tc Oxide Superconductors" Proceedings of the 3rd International Symposium on Superconductivity, Sendai, Japan, pp569-572 \(Nov. 6, 1990\)](#)
17. [I. Tomeno, M. Yoshida, K. Ikeda, T. Takata, K. Tai and N. Koshizuka: "Optical Properties of Ln<sub>2-x</sub>Ce<sub>x</sub>CuO<sub>4-y</sub>, \(Ln=Pr, Nd, and Sm\) Single Crystals" Proceedings of the 2nd International Symposium on Superconductivity, Tsukuba, Japan, pp577-580 \(Nov. 14, 1989\)](#)
18. [M.Yoshida, S. Gotoh, T. Takata and N.Koshizuka: "Raman Scattering Spectra of NdBa<sub>2</sub>Cu<sub>3</sub>O<sub>y</sub> Single Crystals" Proceedings of the 2nd International Symposium on Superconductivity, Tsukuba, Japan, pp581-584 \(Nov. 14, 1989\)](#)
19. [M. Yoshida: "Characteristics in the Growth of the YBa<sub>2</sub>Cu<sub>3</sub>O<sub>x</sub> and YBaSrCu<sub>3</sub>O<sub>x</sub> Crystalline Films" Proceedings of the 1st International Symposium on Superconductivity, Nagoya, Japan, pp615-620 \(Aug. 28, 1988\)](#)
20. [M.Yoshida, H. Watanabe, N. Ohno, H. Mitsutake, K. Nakamura and Y. Nakai: " Multiple LO Phonon Scattering in Indium Bromide" Proceedings of the International Conference on Luminescence, Madison, USA, pp488-490 \(Aug. 13, 1984\)](#)