



Prof. Rodrigo G. Lacerda

- 1. Age** 08/March/1973, 35 years old
- 2. Address** Universidade Federal de Minas Gerais - Instituto de Ciências Exatas - Departamento de Física
Av. Antônio Carlos, 6627 - 31270-901 Belo Horizonte, MG - Brasil
- 3. E-mail** rlacerda@fisica.ufmg.br
- 4. Phone/Fax** +55 31 3409 6620 (office), 3409 5614 (lab)
+55 31 3409 5600 (fax)
- 5. Educational Qualifications** BSc (Universidade Estadual de Campinas, Brazil)
MSc (Universidade Estadual de Campinas, Brazil)
PhD (Universidade Estadual de Campinas, Brazil)
Post-doct (University of Cambridge, Electric.Eng.Dept. UK)
- 6. Present Responsibilities** Teaching, research and university administration
- 7. Specialization** Materials Science, nanostructure materials, growth, devices
- 8. Areas of Research** Semiconductor nanostructures; structural and electrical properties of nanomaterials; electrical devices; growth mechanism, sensors
- 9. Current Interests** Growth of carbon nanotubes and nanowires, development of electronic devices such as field effect transistors and gas sensors, study of growth mechanism of nanostructures, structural characterization
- 10. Experimental Facilities** CVD systems, 4-point probe equipment, clean room facilities, evaporation and sputtering techniques, optical and e-beam lithography, SEM
- 11. General** Rodrigo G. Lacerda is an Associate Professor at the Physics Department of the Federal University of Minas Gerais, Brazil. He is a Research Scholarship recipient of Conselho Nacional de Pesquisa e Desenvolvimento (Brazil). At the moment, he is involved in projects concerning the growth and application of nanostructure materials. He has published over 46 scientific articles and advised 3 M.Sc. and 1 Ph.D. students.
- 12. Five relevant publications in last five years**

CAMPOS, L. C. ; TONEZZER, M. ; FERLAUTO, Andre S. ; GRILLO, V. ; PANIAGO, Rogerio Magalhães ; OLIVEIRA, Sergio ; LADEIRA, L. O. ; LACERDA, R. G. . Vapor-solid-solid growth mechanism driven by epitaxial match between solid AuZn alloy catalyst particle and ZnO nanowire at low temperature. *Advanced Materials (Weinheim)*, v. 20, p. 1499-1504, 2008.

CAMPOS, L. C. ; DALAL, S. H. ; Batista, D. L. ; PANIAGO, Rogerio Magalhães ; FERLAUTO, Andre S. ; MILNE, W. I. ; LADEIRA, L. O. ; LACERDA, R. G. . Determination of the epitaxial growth of zinc oxide nanowires on sapphire by grazing incidence synchrotron x-ray diffraction. *Applied Physics Letters*, v. 90, p. 181929-1-181929-3, 2007

TRIGUEIRO, J. P. C. ; SILVA, G. G. ; LAVALL, R. L. ; FURTADO, C. A. ; OLIVEIRA, Sergio ; FERLAUTO, Andre S. ; LACERDA, R. G. ; LADEIRA, L. O. ; LIU, J. ; FROST, R. L. ; GEORGE, G. A. . Purity Evaluation of Carbon Nanotube Materials by Thermogravimetric, TEM, and SEM Methods. *Journal of Nanoscience and Nanotechnology*, v. 7, p. 3477-3486, 2007.

DALAL, S. H. ; Batista, D. L. ; TEO, K. B. K. ; LACERDA, R. G. ; JEFFERSON, D. A. ; MILNE, W. I. . Controllable growth of vertically aligned zinc oxide nanowires using vapour deposition. *Nanotechnology (Bristol)*, v. 17, p. 4811-4818, 2006.

LACERDA, R. G. ; TEH, A. S. ; YANG, M. H. ; TEO, K. B. K. ; RUPESINGHE, N. L. ; DALAL, S. H. ; KOZIOL, K. K. K. ; ROY, D. ; AMARATUNGA, G. A. J. ; MILNE, W. I. ; CHHOWALLA, M. ; HASKO, D. G. ; WYCZISK, F. ; LEGAGNEUX, P. . Growth of high-quality single-wall carbon nanotubes without amorphous carbon formation. *Applied Physics Letters*, v. 84, n. 2, p. 269, 2004.