

REFERENCES

1. Chen H-I., Chang H-Y. Homogeneous precipitation of cerium dioxide nanoparticles in alcohol/water mixed solvents, *Colloid Surface A*. 2004; 242: 61–69.
2. Yan Q-Z., Su X-T., Huang Z-Y., Ge C-C. Sol-gel auto-igniting synthesis and structural property of cerium-doped titanium dioxide nanosized powders, *J. Eur. Ceram. Soc.* 2006; 26: 915-921.
3. Yin L., Wang Y., Pang G., Koltypin Y., Gedanken A. Sonochemical Synthesis of Cerium Oxide Nanoparticles-Effect of Additives and Quantum Size Effect, *J. Colloid Interf. Sci.* 2002; 246: 78-84.
4. Zhang Y., Lin Y., Jing C. Formation and Thermal Decomposition of Cerium-Organic Precursor for Nanocrystalline Cerium Oxide Powder Synthesis, *J. Disper. Sci. Technol.* 2007; 28: 1053–1058.
5. Tok A. I. Y. Boey F. Y. C., Dong Z., Sun X. L., Hydrothermal synthesis of CeO₂ nanoparticles, *J. Mater. Process. Technol.* 2007; 190: 217–222.
6. Zhai Y., Zhang S., Pang H. Preparation, characterization and photocatalytic activity of CeO₂ nanocrystalline using ammonium bicarbonate as precipitant, *Mater. Lett.* 2007; 61: 1863-1866.
7. Chen H-I., Chang H-Y. Synthesis and characterization of nanocrystalline cerium oxide powders by two-stage non-isothermal precipitation, *Solid State Commun.* 2005; 133: 593–598.
8. Chug K.H., Park D.C. Water photolysis reaction on cerium oxide photocatalysts, *Catal. Today* 1996; 30: 157-162.

9. <http://www.chemblink.com/products/1306-38-3.htm>
10. <http://www.chm.division.edu/ChemistryApplets/Crystal/IonicSolids/Fluorite.html> (available online 26/05/2007)
11. <http://www.fyslab.hut.fi/~asf/physics/sin/CeO2.jpg> (available online 22/03/2007)
12. http://en.wikipedia.org/wiki/Cerium_oxide(available online 22/03/2007)
13. <http://en.wikipedia.org/wiki/Silver>
14. Seo M., Akutsu Y., Kagemoto H. Preparation and properties of Sb-doped SnO₂/metal substrates by sol-gel and dip coating. *Ceram. Int.* 2007; 33: 625-629.
15. <http://en.wikipedia.org/wiki/Sol-gel>, October 10th, 2007.
16. Acarbaş Ö., Suvacı E., Doğan A. Preparation of nanosized tin oxide (SnO₂) powder by homogeneous precipitation. *Ceram. Int.* 2007; 33: 537-542.
17. Acarbaş Ö., Suvacı E., Doğan A., Preparation of nanosized (SnO₂) powder by homogeneous precipitation. *Ceram. Int.* 2007; 33: 537-542.
18. http://en.wikipedia.org/wiki/Precipitation_%28chemistry%29, October 10th, 2007.
19. He Y., Li Y., Yu J., Qian Y. Chemical control synthesis of nanocrystalline SnO₂ by hydrothermal reaction. *Mater. Lett.* 1999; 40: 23-26.
20. Yang X., Wang L. Synthesis of novel hexagon SnO₂ nanosheets in ethanol/water solution by hydrothermal process. *Mater. Lett.* 2007; 61: 3705-3707.
21. http://en.wikipedia.org/wiki/Hydrothermal_synthesis, October 10th, 2007.

22. Menezes D. C., Lima G. M., Porto A.O., Donnici C. L., Ardisson J. D., Doriguetto A. C., Ellena J. Synthesis, characterization and thermal decomposition of tin(IV) dithiocarbamate derivatives-single source precursors for tin sulfide powders. *Polyhedron* 2004; 23: 2103-2109.
23. Xu C., Xu G., Liu Y., Zhao X., Wang G. Preparation and characterization of SnO₂ nanorods by thermal decomposition of SnC₂O₄ precursor. *Scripta Mater.* 2002; 46: 789-794.
24. Whyte, Jr. Thaddeus E., Dalla Betta, R. A., Derouane, E. G., and Baker R. T. K. *Catalytic Materials: Relationship Between Structure and Reactivity*, American Chemical Society, Washington, D.C., 1984.
25. Diéguez A., Vilà A., Cabot A., Romano-Rodríguez A., Morante J.R., Kappler J., Bârsan N., Weimar U., Göpel W. Influence on the gas sensor performances of the metal chemical states introduced by impregnation of calcinated sol-gel nanocrystals. *Sensor Actuat. B-Chem.* 2000; 68: 94-99.
26. Alcalá M. D., Real C. Synthesis based on the wet impregnation method and characterization of iron and iron oxide-silica nanocomposites. *Solid State Ionics*, 2006; 177: 955-960.
27. Suryanarayana, C., and Norton, G. M. *X-ray Diffraction : A Practical Approach*. London, Plenum Press, New York, 2004.
28. <http://epswww.unm.edu/xrd/xrdbasics.pdf>, December 22nd, 2007.

29. Hodnett, B.K., Department of Chemical and Environmental Sciences and The Materials and Surface Science Institute University of Limerick, *Heterogeneous Catalytic Oxidation: Fundamental and Technological Aspects of the Selective and Total Oxidation of Organic Compounds, Ireland, 2000.*
30. Watt, I. M., *The principles and practice of electron microscope*, Cambridge University Press, New York, 1977.
31. http://en.wikipedia.org/wiki/Scanning_electron_microscope, December 22nd, 2007.
32. <http://www.unl.edu/CMRAcfem/semoptic.htm>, December 22nd, 2007.
33. Chescoe, D., and Goodhew, J., *Microscopy Handbook: The operation of the transmission electron microscope*, Oxford University Press, New York, 1984.
34. <http://www.unl.edu/CMRAcfem/temoptic.htm>, December 22nd, 2007.
35. http://en.wikipedia.org/wiki/Transmission_electron_microscopy, December 22nd, 2007.
36. Lowell, S., *Introduction to Powder Surface Area*, John Wiley and Son, New York, 1979.
37. http://en.wikipedia.org/wiki/BET_theory, December 22nd, 2007.
38. McKelvey, J. P., *Solid State and Semiconductor Physics*, Happer and Row, New York, 1996.
39. Jannes, G., and Delmon, B., *Catalysis: Heterogeneous and Homogeneous*, American Elsevier Publishing Company, New York, 1975.
40. <http://www.tekon.com/green/Photocatalyst.html>, November 15th, 2007.

41. <http://www.ensic.inpl-nancy.fr/DCPR/Anglais/GRAPP/photocatalyse.gb.2.htm>, November 15th, 2007.
42. <http://en.wikipedia.org/wiki/Photocatalysiswww.photo>, November 15th, 2007.
43. <http://www.photocatalyst.co.jp/e/kinou/kinou.htm>, November 15th, 2007.
44. Teoh W. Y., Amal R., Mädler L., Pratsinis, S. E. Flame sprayed visible light-active Fe-TiO₂ for photomineralisation of oxalic acid. *Catal. Today*, 2007; 120: 203–213.
45. Crittenden J. C., Liu J., Hand D.W., Perram D.L. Photocatalytic oxidation of chlorinated hydrocarbons in water. *Water Res.* 1997; 31: 429-438.
46. Anpo M., Preparation, characterization, and reactivities of highly functional titanium dioxide-based photocatalysts able to operate under UV-Visible light irradiation: approaches in realizing high efficiency in the use of visible light. *Bull. Chem. Soc. Jpn.* 2004; 77: 1427-1442.
47. Imamura S., Yamada H., Utani K. Combustion activity of Ag/CeO₂ composite catalyst, *Appl. Catal., A General* 2000; 192: 221-226.
48. Bamwenda G.R., Uesigi T., Abe Y., Sayama K., Arakawa H. The photocatalytic oxidation of water to O₂ over pure CeO₂, WO₃, and TiO₂ using Fe³⁺ and Ce⁴⁺ as electron acceptors, *Appl. Catal., A General* 2001; 205: 117-128.
49. Sarode P.R., Priolkar K.R., Bera P., Hegde M.S., Emura S., Kumashiro R. Study of local environment of Ag in Ag/CeO₂ catalyst by EXAFS, *Mater. Res. Bull.* 2002; 37: 1679-1690.

50. He Y., Yang B., Cheng G. On the oxidative coupling of methane with carbon dioxide over CeO₂/ZnO nanocatalysts, *Catal. Today* 2004; 98: 595-600.
51. Tok A.I.Y., Luo L.H., Boey F.Y.C. Carbonate Co-precipitation of Gd₂O₃-doped CeO₂ solid solution nano-particles, *Mater. Sci. Eng. A-Struct.* 2004; 383: 229-234.
52. Li J-G., Wang Y., Ikegami T., Mori T., Ishigaki T. Reactive 10 mol% RE₂O₃ (RE = Gd and Sm) doped CeO₂ nanopowders: Synthesis, characterization, and low-temperature sintering into dense ceramics, *Mater. Sci. Eng. B* 2005; 121: 54-59.
53. Wang Y., Mori T., Li J-G., Drennan J. Synthesis, characterization and electrical conduction of 10 mol% Dy₂O₃-doped CeO₂ ceramics, *J. Eur. Ceram. Soc.* 2005; 25: 949-956.
54. Meisheng C., Liangshi W., Na Z., Zhiqi L., Dianqing L., Aifan C., La-Hexaaluminate Catalyst Preparation and Its Performance for Methane Catalytic Combustion, *J. Rare. Earth.* 2006; 24: 690-694.
55. Ozawa M., Onoe R., Kato H. Formation and decomposition of some rare earth (RE=La,Ce,Pr) hydroxides and oxides by homogeneous precipitation, *J. Alloys Compd.* 2006; 408-412: 556-559.
56. Huang Y., Wang A., Wang X., Zhang T. Preferential oxidation of CO under excess H₂ conditions over iridium catalysts, *Int. J. Hydrogen Energ.* 2007; 32: 3880-3886.

57. Jianjun S., Ping Z., Xingfu T., Baocai Z., Wei S., Yide X., Wenjie S. Effect of Preparation Method and Calcination Temperature on Low-Temperature CO Oxidation over $\text{Co}_3\text{O}_4/\text{CeO}_2$ Catalysts, *Chinese J. Catal.* 2007; 28(2): 163-169.
58. Zhang H., Zhu A., Wang X., Wang Y., Shi C. Catalytic performance of AgCo/CeO_2 catalyst in NO-CO and NO-CO- O_2 system, *Catal. Commun.* 2007; 8: 612-618.
59. Wang Y., Zhu A., Zhang Y., Au C.T., Yang X., Shi C. Catalytic reduction of NO by CO over NiO/CeO_2 catalyst in stoichiometric NO/CO and NO/CO/ O_2 reaction, *Appl. Catal., B-Environ.* 2008; 81: 141-149.