REFERENCES

1. I. Shancita, H.H. Masjuki, M.A. Kalam, I.M.R. Fattah, M.M. Rashed, H.K. Rashedul. "A review on idling reduction strategies to improve fuel economy and reduce exhaust emissions of transport vehicles", 2014, v. 88, pp. 794-807.

2. G.C. Dhal GC. "Preparation and application of effective different catalysts for simultaneous control of diesel soot and NOx emissions: An overview," Catalysis Science & Technology, 2017, v. 7, pp. 1803-1825.

3. S.S. Gill, G.S. Chatha, A. Tsolakis, S.E. Golunski, "Assessing the effects of partially decarbonising a diesel engine by co-fuelling with dissociated ammonia," International Journal of Hydrogen Energy, 2012, v. 37(7), pp. 6074-6083.

4. J.H. Zhou, C.S. Cheung, C.W. Leung. "Combustion, performance, regulated and unregulated emissions of a diesel engine with hydrogen addition," Applied Energy, 2014, v.126, pp.1-12.

5. P.M. More, "Effect of active component addition and support modification on catalytic activity of Ag/Al_2O_3 for the selective catalytic reduction of NOx by hydrocarbon: A review," Journal of Environmental Management, 2017, v. 188, pp. 43-48.

6. S. Roy, M.S. Hegde, G. Madras, "Catalysis for NOx abatement," 2009, v. 86, pp. 2283-2297.

7. http://www.technology.matthey.com/article/32/3/123-129/

8. M. Stanciulescu, G. Caravaggio, S. Dobri, "Low-temperature selective catalytic reduction of NOx with NH_3 over Mn-containing catalysts," Applied Catalysis B: Environmental, 2012, v.123-124, pp. 229-240.

9. V. Praveena, M.L.J. Martin, “A review on various after treatment techniques to reduce NOx emissions in a CI engine,” Journal of Energy Institute, 2017, v. 54, pp.1-17.

10. P. Kumar, L. Pirjola, M. Ketzel, R.M. Harrison, “Nanoparticle emissions from 11 non-vehicle exhaust sources e A review,” Atmospheric Environment, 2013, v. 67, pp.252-277.

11. T. Shishido, J. Krafft, S. Dzwigaj, “BEA zeolite modified with iron as effective catalyst for N_2O decomposition and selective reduction of NO with ammonia,” Applied Catalysis B : Environmental, 2013, v.139, pp.434-445.

12. P. Talebizadeh, M. Babaie, R. Brown, H. Rahimzadeh, Z. Ristovski, M. Arai, “The role of non-thermal plasma technique in NOx treatment : A review,” Renewable Sustainable Energy Reviews, 2014, 40, 886-901.

13. B. Mosqueda, “Reduction of nitrogen oxides over zeolite supported Ni catalysts,” PhD thesis, University of Twente, Nederslands, 2002.

14. C.C. Ming, “The selective catalytic reduction of nitric oxide by propylene over bimetallic Ceo_2-ZrO_2 supported catalyst,” PhD thesis, University of Teknologi, Malaysia, 2005.

15. A. Wildermann, “Development of a H_2-SCR catalyst for NOx reduction in smoke and/or exhaust fumes,” Ph.D. Thesis, University of Erlangen, Nurnberg, 1994, 258–266.

16. G.H. Abd-Alla, “Effect of exhaust gas recirculation on the performance of a dual fual engine,” Ph.D. Thesis, Mechanical Engineering Department, Shoubra Faculty of Engineering, Zagazig University, Cairo, Egypt, 1994.

17. Tonetti, M. and lanfranco, E. US Patent No. 0205617, 2009.

18. R. Burch, J. P. Breen, C. J. Hill, B. Krutzsch, B. Konrad, E. Jobson, “Exceptional activity for NOx reduction at low temperatures using combinations of hydrogen and higher hydrocarbons on Ag-Al_2O_3 catalysts,” Topics in Catalysis, 2004, v. 30 (1-4), pp. 19-25.

19. J.P. Breen, R. Burch, C. Hardacre, C.J. Hill, “Structural Investigation of the Promotional Effect of hydrogen during the Selective Catalytic Reduction of NOx with hydrocarbons over Ag-Al_2O_3 Catalysts,” The Journal of Physical Chemistry B, 2005, v. 220, pp. 4805-4807.

20. U. Kamolphop, S.F.R. Taylor, J.P. Breen, R. Burch, J.J. Delgado, S.C. Hardacre, S. Hengrasmee, S.L. James, “Low-temperature Selective Catalytic Reduction (SCR) of NOx with n-Octane using solvent-free mechanochemically prepared Ag/Al2O3 Catalysts,” ACS Catalysis, 2011, v. 1, pp. 1257-1262.

21. K. Skalska, J. S. Miller, S. Ledakowicz, “Science of the Total Environment Trends in NOx abatement : A review,” Science of the Total Environment, 2010, v. 408(19), pp. 3976-3989.

22. R.J. Kalsabi, N. Mosaddegh, “Pd-poly(N-vinyl-2-pyrrolidone)/KIT-6 nanocomposite: Preparation, structural study, and catalytic activity,” Comptes Rendus Chimie, 2012, v. 15, pp. 988–995.

23. S. Arora, R. Prasad, “Effect of Promoters on Performance of Ni/γ-Al_2O_3 Catalyst in Dry Reforming of Methane,” Advances in Nano Energy, 2017, v. 1(2), pp. 107-121.

24. M. Qiu, S. Zhan, H. Yu, D. Zhu, S. Wang, “Facile preparation of ordered mesoporous $MnCo_2O_4$ for low-temperature selective catalytic reduction of NO with NH_3,” Nanoscale, 2015, v. 7, pp. 2568-2577.

25. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, "Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions," Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

26. M.B. Gawande, A. Goswami, F.X. Felpin, T. Asefa, X. Huang, R. Silva, X. Zou, R. Zboril, and R.S. Varma, "Cu and Cu-Based Nanoparticles: Synthesis and Applications in Catalysis," Chemical Reviews, 2016, v. 116, pp. 3722−3811.

27. K. Skalska, J.S. Miller, S. Ledakowicz, "Trends in NOx abatement: A review," Science of The Total Environment, 2010, v. 408, pp. 3976-3989

28. F. Gao, X. Tang, H. Yi, S. Zhao, C. Li , J. Li, Y. Shi and X. Meng, "A Review on Selective Catalytic Reduction of NOx by NH3 over Mn-Based Catalysts at Low Temperatures: Catalysts, Mechanisms, Kinetics and DFT Calculations," Catalysts, 2017, v. 7, pp. 199.

29. K. Skalska, J. S. Miller, S. Ledakowicz, "Trends in NOx abatement : A review," Science of the Total Environment, 2010, v. 408(19), pp. 3976-3989.

30. H.R. Rahai, "Reducing Diesel NOx and PM Emissions of Diesel Buses and Trucks" Ph.D. Thesis, California State University, Long Beach, 2008.

31. M. Hsieh, "Control of Diesel Engine Urea Selective Catalytic Reduction Systems," Ph.D. Thesis, Ohio State University, 2010.

32. H. Wu, "Performance Simulation and Control Design for Diesel Engine NOx Emission Reduction Technologies," Ph.D. Thesis, University of Illinois at Urbana, Champaign, 2011.

33. R. Vellaisamy, "Assessment of NOx Destruction in Heavy-Duty Diesel Engines by Injecting Nitric Oxide into the Intake," Ph.D. Thesis, Morgantown, West Virginia, 2005.

34. C. Ericson, "NOx Modelling of a Complete Diesel Engine/SCR System," Licentiate Thesis, Department of Energy Sciences, Lund University, Lund, 2007.

35. L.S. Chladova, "Evaluation of Selective Catalytic Reduction for Marine Two-Stroke Diesel Engines," Ph.D. Thesis, Aalborg University, 2010.

36. R.D.M. Landet, "PM emissions and NOx-reduction due to water in fuel emulsions in marine diesel engines". M. Sc. Thesis, Department of Marine Technology, Norwegian University of Science and Technology, 2010.

37. C. Crua, "Combustion Processes in a Diesel Engine," Ph.D. Thesis, University of Brighton. United Kingdom, 2002.

38. A. Setiabudi, "Catalytic filter development for the oxidation of diesel soot with NO_2" Ph.D. Thesis, Delft University of Technology. Delft, 2002.

39. S.V. Kumar, and S.A. Roth, US Patent No. 0236224,2010.

41. I. Son, US Patent No. 0167799, 2011

42. A.Y. Stakheev and P. Gabrielsson, US Patent No. 0055013, 2010.

43. B.K. Cho, and J.H. Baik, US Patent No. 0068093, 2009.

44. J.A. Brooks, US Patent No. 0016848, 2011.

45. B.A. Zimmerman, M. Levin, J.P. Bogema, and F.Z. Shaikh, US Patent No. 0067381, 2011.

46. T. Yoshihide, T. US Patent No. 0266061, 2009.

47. B. Rolf, and H. Peter, US Patent No. 0037598, 2010.

48. M. Tonetti and E. lanfranco, US Patent No. 0205617, 2009.

49. After treatment technologies 2013 and beyond, Seminar on Emission Control Technologies 2011, Emission Control Manufaturers Association, 9-10 Nov. 2011, New Delhi, India.

50. ECMA-Indian Emission Standards. (2010). Web. http://www.ecmaindia.in. last accessed 07-06-2012.

51. J.B. Heywood, Pollutant formation and control. Internal combustion engine fundamentals International ed., McGraw Hill Inc., 572–577, 1988.

52. Man Diesel & Turbo. Emission Control Two-Stroke Low-Speed Diesel Engines. Web.http://www.mandiesel.com/files/news/filesof1417/19993701.pdf, 2003.

53. Y.A. Levendis, I. Pavalatos, and R.F. Abrams, R.F. Control of diesel soot hydrocarbon and NOx emissions with a particular trap. International Congress & Exposition, 1994, Detroit, MI, USA, SAE 940460.

51. H. Miessner, K.P. Francke, R. Rudolph R. Plasma-enhanced HC-SCR of NOx in the presence of excess oxygen. Applied Catalysis B: Environmental, 2002, v. 36(1), pp. 53-62.

52. Prasad R, Bella VR. A Review on Diesel Soot Emission, its Effect and Control. Bulletin of Chemical Reaction Engineering & Catalysis, 2010, v. 5(2), pp. 69-86.

53. G.A. Rhystyler, W. Legassick, M.C. Bell, "The significance of vehicle emissions standards for levels of exhaust pollution from light vehicles in an urban area," Atmospheric Environment, 2011, v. 45(19), pp. 3286-3293.

54. P. Talebizadeh, M. Babaie, R. Brown, H. Rahimzadeh, Z. Ristovski, M. Arai, "The role of non-thermal plasma technique in NOx treatment : A review," Renewable & Sustainable Energy Reviews, 2014, v. 40, pp. 886-901.

55. D. Yadav, P. Singh, R. Prasad. "$MnCo_2O_4$ spinel catalysts synthesized by nanocasting method followed by different calcination routes for low-temperature reduction of NOx using various reductants," International Journal of Hydrogen Energy. 2017, v. 43(10), pp 5346-5357.

56. S.A. Shahir, H.H. Masjuki, M.A. Kalam, A. Imran, A.M. Ashraful, "Performance and emission assessment of diesel – biodiesel – ethanol / bioethanol blend as a fuel in diesel engines : A review," Renewable & Sustainable Energy Reviews, 2015, v. 48, p. 62-78.

57. S.C. Hill, L.D. Smoot, "Modeling of nitrogen oxides formation and destruction in combustion systems," 2000, v. 26, pp. 417-458.

58. S.K. Hoekman, C. Robbins, "Review of the effects of biodiesel on NOx emissions," Fuel Processing Technology, 2012, v. 96, pp. 237-249. doi:10.1016/j.fuproc.2011.12.036.

59. J. Li, H. Chang, L. Ma, J. Hao, R.T. Yang, "Low-temperature selective catalytic reduction of NOx with NH_3 over metal oxide and zeolite catalysts—A review," Catalysis Today, 2011, v. 175(1), pp. 147-156.

60. P. Kumar, L. Pirjola, M. Ketzel, R.M. Harrison, "Nanoparticle emissions from 11 non-vehicle exhaust sources e A review," Atmospheric Environment, 2013, v. 67, pp. 252-277.

61. S. Roy, M.S. Hegde, G. Madras, "Catalysis for NOx abatement," Applied Energy, 2009, v. 86(11), pp. 2283-2297.

62. R. Prasad, V.R. Bella, "A Review on Diesel Soot Emission, its Effect and Control," Catalysis Reviews: Science and Engineering 2010;5(2):69-86.

61. C. Liu, J.W.Shi, C. Gao, C. Niu, "Manganese oxide-based catalysts for low-temperature selective catalytic reduction of NOx with NH_3: A review," Applied Catalysis A: General, 2016, v. 522, pp. 54-69.

62. D. Yadav, R. Prasad, Low temperature de-NO x technology-a challenge for vehicular exhaust and its remediation: An overview, 2016, v. 24, pp. 639 – 644.

63. http://edgar.jrc.ec.europa.eu/news_docs/jrc-2016-trends-in-global-co2-emissions-2016-report-103425.pdf

64. http://www.un.org/esa/gite/iandm/faizpaper.pdf

65. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4192899/

66. https://www.osha.gov/SLTC/hazardoustoxicsubstances/

67. Stieb, D.M.; Judek, S.; and Burnett, R.T. Meta-Analysis of Time-Series Studies of Air Pollution and Mortality: Update in Relation to the Use of Generalized Additive Models. J. Air & Waste Manage. Assoc. 2003, 53, 258-261.

68. https://www.sae.org/publications/technical-papers/content/2007-01-0237/

69.Health and Environmental Impacts of NOx" (http://www.epa.gov/airprogm/oar/urbanair/nox/hlth.html). USEPA. Retrieved 2017-12-26.

70. https://books.google.co.in/books?id=_-FrlFhqqtkC&pg=PA23&lpg=PA23&dq

71. https://www.sciencedirect.com/science/article/pii/1352231094900507

72. https://www.concawe.eu/wp-content/uploads/2017/01/2002-00203-01-e.pdf

73. http://www.un.org/esa/gite/iandm/faizpaper.pdf

74. https://www.business-standard.com/article/current-affairs/bs-vi-delhi-to-get-clean-fuel-two-years-early-117111501423_1.html

75. https://indianexpress.com/article/explained/delhi-pollution-smog-bs-vi-emission-norms-for-vehicles-so-near-and-yet-so-far-here-is-why-4945392/

76. H. Teng, T.S. Huang, "Control of NO_x emissions through combustion modifications for reheating furnaces in steel plants," Fuel, v. 75(2), pp. 149-156.

77. S.M. Jung, O. Demoulin, P. Grange, "The study of a synergetic effect over a H-ZSM-5/V_2O_5 hybrid catalyst on SCR reaction," Journal of Molecular Catalysis A: Chemical, 2005, v. 236(1-2), pp. 94-98.

78. R. Sindhu, G.A.P. Rao, K.M. Murthy, "Effective reduction of NOx emissions from diesel engine using split injections," Alexandria Engineering Journal, 2017, v.10, pp. 101-117.

79. S. Roy, R. Banerjee, P.K. Bose, "Performance and exhaust emissions prediction of a CRDI assisted single cylinder diesel engine coupled with EGR using artificial neural network,". Applied Energy, 2014, v.119, pp. 330-340.

80. D. Agarwal, S. Kumar, A. Kumar, "Effect of Exhaust Gas Recirculation (EGR) on performance, emissions, deposits and durability of a constant speed compression ignition engine," Applied Energy, 2011, v. 88(8), pp.2900-2907.

81. A. Maiboom, X. Tauzia, "Experimental study of various effects of exhaust gas recirculation (EGR) on combustion and emissions of an automotive direct injection diesel engine," 2008, v. 33, pp. 22-34.

82. S.K. Hoekman, C. Robbins, "Review of the effects of biodiesel on NOx emissions," Fuel Process Technology, 2012, v.96, pp. 237-249.

83. M. Piumetti, S. Bensaid, D. Fino, "Catalysis in Diesel engine NOx after treatment: a review," Catalysis, Structure & Reactivity2016;1(4):155-173.

84. Liu N, Jiang Y, Zhang L, "Evaluation of NOx Removal from Flue Gas by a Chemical Absorption − Biological Reduction Integrated System : Glucose Consumption and Utilization Pathways," 2014, v. 28 (12), pp. 7591–7598.

85. G. Liu, P.X. Gao, "A review of NOx storage/reduction catalysts: mechanism, materials and degradation studies," Catalysis Science & Technology, 2011, v. 1(4), pp.552-560.

86. J. Liu, L.Wan, L. Zhang, Q. Zhou, "Effect of pH , ionic strength , and temperature on the phosphate adsorption onto lanthanum-doped activated carbon fiber," Journal of Colloid and Interface Science, 2011, v. 364(2), 490-496.

87. D. Yadav, A.R. Kavaiya, D. Mohan, R. Prasad, "Low Temperature Selective Catalytic Reduction (SCR) of NOx Emissions by Mn-doped Cu/ Al_2O_3 Catalysts," 2017, v. 12(3), pp. 415-429.

88. U. Deka, I. Lezcano-gonzalez, B.M. Weckhuysen, A.M. Beale, "Local Environment and Nature of Cu Active Sites in Zeolite-Based Catalysts for the Selective Catalytic Reduction of NOx," ACS Catalysis, 2013, v.3, pp.413-427.

89. E.F. Iliopoulou, A.P. Evdou, A.A. Lemonidou, I.A. Vasalos, "Ag/ alumina catalysts for the selective catalytic reduction of NOx using various reductants," Applied Catalysis A: General, 2004, v. 274, pp. 179-189.

90. https://books.google.co.in/books?id=_-FrlFhqqtkC&pg=PA23&lpg=PA23&dq

91. https://www.concawe.eu/wp-content/uploads/2017/01/2002-00203-01-e.pdf

92. https://www.business-standard.com/article/current-affairs/bs-vi-delhi-to-get-clean-fuel-two-years-early-117111501423_1.html

93. Y. Yu, Y. Li, X. Zhang, H. Deng, H. He, Y. Li, "Promotion Effect of H_2 on Ethanol Oxidation and NOx Reduction with Ethanol over Ag/Al_2O_3 Catalyst. Environ Science and Technology," 2015, v. 49, pp. 481-488.

94. R. Sindhu, G.A.P. Rao, K.M. Murthy, "Effective reduction of NOx emissions from diesel engine using split injections," Alexandria Engineering Journal, 2017, v.10, pp. 101-117.

95. R. Palkovits, "Nitrogen oxide removal over hydrotalcite-derived mixed metal oxides," Catalysis Science & Technology, 2016, v. 6, pp. 49-72.

96. M. Koebel, M. Elsener, M. Kleemann, “Urea-SCR : a promising technique to reduce NO x emissions from automotive diesel engines,” 2000, v. 59, 335-345.

97. I. Nova, C. Ciardelli, E. Tronconi, D. Chatterjee, B. Bandl-konrad, “NH_3–NO/ NO_2 chemistry over V-based catalysts and its role in the mechanism of the Fast SCR reaction,” 2006;114(2):3-12.

98. A. Mishra, R Prasad, “Preparation and Application of Perovskite Catalysts for Diesel Soot Emissions Control: An Overview,” Catalysis Reviews: Science and Engineering, 2015, v.56 (1), pp. 57-86.

99. https://www.sae.org/publications/technical-papers/content/2007-01-0237/

100. http://www.handbookofmineralogy.org/pdfs/manasseite.pdf

101. M. Qiu, S. Zhan, H. Yu, D. Zhu, S. Wang, “Facile preparation of ordered mesoporous $MnCo_2O_4$ for low-temperature selective catalytic reduction of NO with NH_3,” Nanoscale, 2015, v. 7, pp. 2568-2577.

102. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, “Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions,” Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

103. M.B. Gawande, A. Goswami, F.X. Felpin, T. Asefa, X. Huang, R. Silva, X. Zou, R. Zboril, and R.S. Varma, “Cu and Cu-Based Nanoparticles: Synthesis and Applications in Catalysis,” Chemical Reviews, 2016, v. 116, pp. 3722−3811.

104. K. Skalska, J.S. Miller, S. Ledakowicz, “Trends in NOx abatement: A review”, Science of The Total Environment, 2010, v. 408, pp. 3976-3989

105. F. Gao, X. Tang, H. Yi, S. Zhao, C. Li , J. Li, Y. Shi and X. Meng, “A Review on Selective Catalytic Reduction of NOx by NH3 over Mn-Based Catalysts at Low

Temperatures: Catalysts, Mechanisms, Kinetics and DFT Calculations", Catalysts, 2017, v. 7, pp. 199.

106. R. Prasad, Sony and P. Singh, "Low temperature complete combustion of a lean mixture of LPG emissions over cobaltite catalysts", Catalysis Science & Technology, 2013, v. 3, pp. 3223–3233.

107. A. Varma, A.S. Mukasyan, A.S. Rogachev, K.V. Manukyan, "Solution Combustion Synthesis of Nanoscale Materials," Chemical Reviews, 2016, v. 116 (23), pp. 14493-14586 K. Skalska, J. S. Miller, S. Ledakowicz, "Science of the Total Environment Trends in NOx abatement : A review," Science of the Total Environment, 2010, v. 408(19), pp. 3976-3989.

108. A. Keshavaraja, X. She, M. Flytzani-Stephanopoulos "Selective catalytic reduction of NO with methane over Ag-alumina catalysts," Applied Catalysis B : Environmental, 2000, v. 27, pp.

109. R. Zhang, A. Villanueva, H. Alamdari, S. Kaliaguine, "Crystal structure, redox properties and catalytic performance of Ga-based mixed oxides for NO reduction by C3H8," 2008, v. 9, pp.

111. H. Kannisto, H.H. Ingelsten, M. Skoglundh, "Ag-Al2O3 catalysts for lean NOx reduction-Influence of preparation method and reductant," Journal of Molecular Catalysis A: Chemical, 2009, v. 302(1-2), pp. 86-96.

112. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, "Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions," Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

113. K. Shimizu, A. Satsuma, “Reaction Mechanism of H_2-Promoted Selective Catalytic Reduction of NO with NH_3 over Ag-Al_2O_3,” The Journal of Physical Chemistry C, 2007, v. 111, pp. 2259-2264.

114. K. Shimizu, K. Sawabe, A. Satsuma, “Unique catalytic features of Ag nanoclusters for selective NOx reduction and green chemical reactions,” Catalysis Science & Technology, 2011, v. 1(3), pp. 331.

115. R. Burch, J. P. Breen, C. J. Hill, B. Krutzsch, B. Konrad, E. Jobson, “Exceptional activity for NOx reduction at low temperatures using combinations of hydrogen and higher hydrocarbons on Ag-Al_2O_3 catalysts,” Topics in Catalysis, 2004, v. 30 (1-4), pp. 19-25.

116. J.P. Breen, R. Burch, C. Hardacre, C.J. Hill, “Structural Investigation of the Promotional Effect of hydrogen during the Selective Catalytic Reduction of NOx with hydrocarbons over Ag-Al_2O_3 Catalysts,” The Journal of Physical Chemistry B, 2005, v. 220, pp. 4805-4807.

117. U. Kamolphop, S.F.R. Taylor, J.P. Breen, R. Burch, J.J. Delgado, S.C. Hardacre, S. Hengrasmee, S.L. James, “Low-temperature Selective Catalytic Reduction (SCR) of NOx with n-Octane using solvent-free mechanochemically prepared Ag/Al_2O_3 Catalysts,” ACS Catalysis, 2011, v. 1, pp. 1257-1262.

118. Z. Li, M. Meng, Q. Li, Y. Xie, T. Hu, J. Zhang, “Fe-substituted nanometric $La_{0.9}K_{0.1}Co_{1-x}Fe_xO_{3-\delta}$ perovsite catalysts used for soot combustion, NOx storage and simultaneous catalytic removal soot and NOx,” Chemical Engineering Journal, 2010, v. 164, pp. 98-105

119. P. M. More, “Effect of active component addition and support modification on catalytic activity of Ag/Al_2O_3 for the selective catalytic reduction of NOx by hydrocarbon, A review,” Journal of Environmental Management, 2017, v. 188, pp. 43-48.

120. H. Wang, S. Gao, F. Yu, Y. Liu, X. Weng, Z. Wu, "Effective way to control the performance of a ceria-Based de-NOx catalyst with improved alkali resistance: acid–base adjusting," The Journal of Physical Chemistry C, 2015, v. 119(27), pp. 15077-15084.

121. L.Y. Valanidou, C.P. Theologides, G.G. Olympiou, P.G. Savva, C.N. Costa, "A Novel Catalyst Ag/MgO-CeO_2-Al_2O_3 for the Low-temperature Ethanol-SCR of NO under lean de-NOx Conditions," Recent Patents on Catalysis, 2012, v. 1(1), pp. 74-84.

122. D.K. Pappas, T. Boningari, P. Boolchand, P.G. Smirniotis, "Novel manganese oxide confined interweaved titania nanotubes for the lowerature Selective Catalytic Reduction (SCR) of NOx by NH_3," Journal of Catalysis, 2016, v. 334, pp. 1-13.

123. M. Qiu, S. Zhan, H. Yu, D. Zhu, "Low-temperature selective catalytic reduction of NO with NH_3 over ordered mesoporous $MnxCo_{3-x}O_4$ catalyst," Catalysis Communications, 2015, v. 62(3), pp. 107-111.

124. G. Wu, J. Li, Z. Fang, L. Lan, R. Wang, T. Lin, M. Gong, Y. Chen, Chemical Engineering Journal, 271 (2015) 1–13.

125. S. Xiong, Y. Liao, X. Xiao, H. Dang, S. Yang, "Novel Effect of H_2O on the Low Temperature Selective Catalytic Reduction of NO with NH_3 over MnOx-CeO_2: Mechanism and Kinetic Study," The Journal of Physical Chemistry C, 2015, v. 119, pp. 4180-4187.

126. S. Zhang, Y. Wu, X. Wu, M. Li, Y. Ge, B. Liang, Y. Xu, Y. Zhou, H. Liu, L. Fu, J. Hao, "Historic and future trends of vehicle emissions in Beijing, 1998–2020: a policy assessment for the most stringent vehicle emission control program in China," Atmospheric Environment, 2014, v. 89, pp. 216–229.

127. B. Shen, X. Zhang, H. Ma, Y. Yao, T. Liu, “A comparative study of Mn/CeO_2, Mn/ZrO_2 and Mn/Ce-ZrO_2 for low temperature selective catalytic reduction of NO with NH_3 in the presence of SO_2 and H_2O,” Journal of Environmental Sciences, 2013, v. 25 (4), pp. 791-800.

128. L. Wang, J.R. Gaudet, W. Li, D.J. Weng, “Migration of Cu species in Cu/SAPO-34 during hydrothermal aging,” Journal of Catalysis, 2013, v. 306, pp. 68-77.

129. W.Q. Xu, H.R. Wang, T.Y. Zhu, J.Y. Kuang, P.F. Jing, “Mercury removal from coal combustion flue gas by modified fly ash,” Journal of Environmental Sciences, 2013, v. 25 (2), pp. 393-398.

130. G. Qi, R. T. Yang, “Performance and Kinetics Study for Low Temperature SCR of NO with NH_3 over MnOx-CeO_2, Catalyst,” Journal of Catalysis, 2003, v. 217, pp. 434–441.

131. Y. Wu, S. Zhang, J. Hao, “Science of the Total Environment On-road vehicle emissions and their control in China : A review and outlook,” Science of the Total Environment, 2017, v. 574, pp. 332-349.

132. M. Nahavandi, “Selective catalytic reduction (SCR) of NO by ammonia over V_2O_5/TiO_2 catalyst in a catalytic filter medium and honeycomb reactor : a kinetic modeling study,” 2015, v. 32(4), pp. 875-893.

133. L. Chen, Z. Si, X. Wu, D. Weng, Z. Wu, “Effect of water vapor on NH_3-NO/NO_2 SCR performance of fresh and aged MnOx–NbOx–CeO_2 catalysts”, 2015, v. 31(2), pp. 1-8.

134. Y. Peng, C. Wang, J. Li, “Structure – activity relationship of VOx/CeO_2 nanorod for NO removal with ammonia”, Applied Catalysis B: Environmental, 2014, v. 144, pp. 538-546.

135. G. Yao, F. Wang, X. Wang, K. Gui, “Magnetic field effects on selective catalytic reduction of NO by NH_3 over Fe_2O_3 catalyst in a magnetically fluidized bed”, Energy, 2010, v. 35(5), pp. 2295-2300.

136. J. Li, S. Li, “New insight into selective catalytic reduction of nitrogen oxides by ammonia over H-form zeolites : a theoretical study,” Physical Chemistry Chemical Physics, 2007, v. (2), pp. 3304-3311.

137. M. Kang, J.J.H. Park, J.S.J. Choi, E.D.E. Park, J. Yie, “Low-temperature catalytic reduction of nitrogen oxides with ammonia over supported manganese oxide catalysts,” Korean Journal of Chemical Engineering, 2007, v. 24(1), pp. 191-195.

138. I. E. Wachs, G. Deo, B. M. Weckhuysen, “Selective Catalytic Reduction of NO with NH_3 over Supported Vanadia Catalysts,” Journal of Catalysis, 1996, v. 221(179), pp. 211-221.

139. M. Qiu, S. Zhan, H. Yu, D. Zhu, S. Wang, “Facile preparation of ordered mesoporous MnCo2O4 for low-temperature selective catalytic reduction of NO with NH_3,” 2015, pp. 2568-2577.

140. B. Dou, G. Lv, C. Wang, Q. Hao, K. Hui, “Cerium doped copper/ZSM-5 catalysts used for the selective catalytic reduction of nitrogen oxide with ammonia,” Chemical Engineering Journal, 2015, v. 270, pp. 549-556.

141. S. Xiong, X. Xiao, Y. Liao, H. Dang, W. Shan, S. Yang, “Global Kinetic Study of NO Reduction by NH_3 over V_2O_5–WO_3/TiO_2 : Relationship between the SCR Performance and the Key Factors,” Industrial & Engineering Chemistry Research, 2015, v. 54(44), pp. 11011-11023.

142. Z. Liu, Y. Li, T. Zhu, H. Su, J. Zhu, "Selective Catalytic Reduction of NOx by NH_3 over Mn-Promoted V_2O_5/TiO_2 Catalyst," Industrial & Engineering Chemistry Research, 2014, v. 53 (35), pp. 13589-13597.

143. A. Sultana, M. Sasaki, K. Suzuki, H. Hamada, "Enhanced NOx conversion with decane over Ag/Al_2O_3 and metal supported ZSM-5 composite SCR catalysts," Topics in Catalysis, 2013, v. 56(1-8), pp. 172-176.

144. J.H. Zhou, C.S. Cheung, C.W. Leung, "Combustion, performance and emissions of a diesel engine with H_2, CH_4 and H_2–CH_4 addition," International Journal of Hydrogen Energy, 2014, v. 39(9), pp. 4611-4621.

145. Q. Li, Y. Hou, X. Han, Z. Huang, Q. Guo, D. Sun, J. Liu, "Selective catalytic reduction of NO with NH_3 over activated carbon impregnated with melamine at low temperature," Journal of Fuel Chemistry and Technology, 2014, v. 42, pp. 487-493.

146. M. Qiu, S. Zhan, H. Yu, D. Zhu, S. Wang, "Facile preparation of ordered mesoporous $MnCo_2O_4$ for low-temperature selective catalytic reduction of NO with NH_3," 2015, v. 7(6), pp. 2568-2577.

147 M. Qiu, S. Zhan, H. Yu, D. Zhu, S. Wang, "Facile preparation of ordered mesoporous $MnCo_2O_4$ for low-temperature selective catalytic reduction of NO with NH_3," 2015, pp. 2568-2577.

148. A. Keshavaraja, X. She, M. Flytzani-Stephanopoulos "Selective catalytic reduction of NO with methane over Ag-alumina catalysts," Applied Catalysis B : Environmental, 2000, v. 27, pp. 1-9.

149. R. Zhang, A. Villanueva, H. Alamdari, S. Kaliaguine, "Crystal structure, redox properties and catalytic performance of Ga-based mixed oxides for NO reduction by C_3H_8," 2008, v. 9, pp. 111-116.

150. D. Creaser, H. Kannisto, J. Sjöblom, H.H. Ingelsten, "Kinetic modeling of selective catalytic reduction of NOx with octane over Ag–Al_2O_3," Applied Catalysis B: Environmental, 2009, v. 90 (1-2), pp. 18-28.

151. H. Kannisto, H.H. Ingelsten, M. Skoglundh, "Ag-Al_2O_3 catalysts for lean NOx reduction-Influence of preparation method and reductant," Journal of Molecular Catalysis A: Chemical, 2009, v. 302(1-2), pp. 86-96.

152. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, "Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions," Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

153. K. Shimizu, A. Satsuma, "Reaction Mechanism of H_2-Promoted Selective Catalytic Reduction of NO with NH_3 over Ag-Al_2O_3," The Journal of Physical Chemistry C, 2007, v. 111, pp. 2259-2264.

154. K. Shimizu, K. Sawabe, A. Satsuma, "Unique catalytic features of Ag nanoclusters for selective NOx reduction and green chemical reactions," Catalysis Science & Technology, 2011, v. 1(3), pp. 331.

155. R. Burch, J. P. Breen, C. J. Hill, B. Krutzsch, B. Konrad, E. Jobson, "Exceptional activity for NOx reduction at low temperatures using combinations of hydrogen and higher hydrocarbons on Ag-Al_2O_3 catalysts," Topics in Catalysis, 2004, v. 30 (1-4), pp. 19-25.

156. J.P. Breen, R. Burch, C. Hardacre, C.J. Hill, "Structural Investigation of the Promotional Effect of hydrogen during the Selective Catalytic Reduction of NOx with

hydrocarbons over Ag- Al_2O_3 Catalysts," The Journal of Physical Chemistry B, 2005, v. 220, pp. 4805-4807.

157. U. Kamolphop, S.F.R. Taylor, J.P. Breen, R. Burch, J.J. Delgado, S.C. Hardacre, S. Hengrasmee, S.L. James, "Low-temperature Selective Catalytic Reduction (SCR) of NOx with n-Octane using solvent-free mechanochemically prepared Ag/Al_2O_3 Catalysts," ACS Catalysis, 2011, v. 1, pp. 1257-1262.

158. K. Skalska, J. S. Miller, S. Ledakowicz, "Science of the Total Environment Trends in NOx abatement : A review," Science of the Total Environment, 2010, v. 408(19), pp. 3976-3989.

159. R.J. Kalsabi, N. Mosaddegh, "Pd-poly(N-vinyl-2-pyrrolidone)/KIT-6 nanocomposite: Preparation, structural study, and catalytic activity," Comptes Rendus Chimie, 2012, v. 15, pp. 988–995.

160. S. Arora, R. Prasad, "Effect of Promoters on Performance of Ni/γ-Al_2O_3 Catalyst in Dry Reforming of Methane," Advances in Nano Energy, 2017, v. 1(2), pp. 107-121.

161. M. Qiu, S. Zhan, H. Yu, D. Zhu, S. Wang, "Facile preparation of ordered mesoporous $MnCo_2O_4$ for low-temperature selective catalytic reduction of NO with NH_3," Nanoscale, 2015, v. 7, pp. 2568-2577.

162. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, "Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions," Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

163. M.B. Gawande, A. Goswami, F.X. Felpin, T. Asefa, X. Huang, R. Silva, X. Zou, R. Zboril, and R.S. Varma, "Cu and Cu-Based Nanoparticles: Synthesis and Applications in Catalysis," Chemical Reviews, 2016, v. 116, pp. 3722−3811.

164. K. Skalska, J.S. Miller, S. Ledakowicz, “Trends in NOx abatement: A review”, Science of The Total Environment, 2010, v. 408, pp. 3976-3989

165. F. Gao, X. Tang, H. Yi, S. Zhao, C. Li , J. Li, Y. Shi and X. Meng, “A Review on Selective Catalytic Reduction of NOx by NH_3 over Mn-Based Catalysts at Low Temperatures: Catalysts, Mechanisms, Kinetics and DFT Calculations”, Catalysts, 2017, v. 7, pp. 199.

166. R. Prasad, S. and P. Singh, “Low temperature complete combustion of a lean mixture of LPG emissions over cobaltite catalysts”, Catalysis Science & Technology, 2013, v. 3, pp. 3223–3233.

167. A. Varma, A.S. Mukasyan, A.S. Rogachev, K.V. Manukyan, “Solution Combustion Synthesis of Nanoscale Materials,” Chemical Reviews, 2016, v. 116 (23), pp. 14493-14586

168. K. Skalska, J. S. Miller, S. Ledakowicz, “Science of the Total Environment Trends in NOx abatement : A review,” Science of the Total Environment, 2010, v. 408(19), pp. 3976-3989.

169. A. Keshavaraja, X. She, M. Flytzani-Stephanopoulos “Selective catalytic reduction of NO with methane over Ag-alumina catalysts,” Applied Catalysis B : Environmental, 2000, v. 27, pp. 1-9.

170. R. Zhang, A. Villanueva, H. Alamdari, S. Kaliaguine, “Crystal structure, redox properties and catalytic performance of Ga-based mixed oxides for NO reduction by C_3H_8,” 2008, v. 9, pp. 111-116.

171. H. Kannisto, H.H. Ingelsten, M. Skoglundh, “Ag-Al_2O_3 catalysts for lean NOx reduction-Influence of preparation method and reductant,” Journal of Molecular Catalysis A: Chemical, 2009, v. 302(1-2), pp. 86-96.

172. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, “Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions,” Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

173. K. Shimizu, A. Satsuma, “Reaction Mechanism of H_2-Promoted Selective Catalytic Reduction of NO with NH_3 over $Ag-Al_2O_3$,” The Journal of Physical Chemistry C, 2007, v. 111, pp. 2259-2264.

174. K. Shimizu, K. Sawabe, A. Satsuma, “Unique catalytic features of Ag nanoclusters for selective NOx reduction and green chemical reactions,” Catalysis Science & Technology, 2011, v. 1(3), pp. 331.

175. R. Burch, J. P. Breen, C. J. Hill, B. Krutzsch, B. Konrad, E. Jobson, “Exceptional activity for NOx reduction at low temperatures using combinations of hydrogen and higher hydrocarbons on $Ag-Al_2O_3$ catalysts,” Topics in Catalysis, 2004, v. 30 (1-4), pp. 19-25.

176. J.P. Breen, R. Burch, C. Hardacre, C.J. Hill, “Structural Investigation of the Promotional Effect of hydrogen during the Selective Catalytic Reduction of NOx with hydrocarbons over Ag- Al_2O_3 Catalysts,” The Journal of Physical Chemistry B, 2005, v. 220, pp. 4805-4807.

177. U. Kamolphop, S.F.R. Taylor, J.P. Breen, R. Burch, J.J. Delgado, S.C. Hardacre, S. Hengrasmee, S.L. James, “Low-temperature Selective Catalytic Reduction (SCR) of NOx with n-Octane using solvent-free mechanochemically prepared Ag/Al_2O_3 Catalysts,” ACS Catalysis, 2011, v. 1, pp. 1257-1262.

178. A. Keshavaraja, X. She, M. Flytzani-Stephanopoulos “Selective catalytic reduction of NO with methane over Ag-alumina catalysts,” Applied Catalysis B : Environmental, 2000, v. 27, pp. 1-9.

179. R. Zhang, A. Villanueva, H. Alamdari, S. Kaliaguine, “Crystal structure, redox properties and catalytic performance of Ga-based mixed oxides for NO reduction by C_3H_8,” 2008, v. 9, pp. 111-116.

180. D. Creaser, H. Kannisto, J. Sjöblom, H.H. Ingelsten, “Kinetic modeling of selective catalytic reduction of NOx with octane over Ag–Al_2O_3,” Applied Catalysis B: Environmental, 2009, v. 90 (1-2), pp. 18-28.

181. H. Kannisto, H.H. Ingelsten, M. Skoglundh, “Ag-Al_2O_3 catalysts for lean NOx reduction-Influence of preparation method and reductant,” Journal of Molecular Catalysis A: Chemical, 2009, v. 302(1-2), pp. 86-96.

182. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, “Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions,” Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

183. K. Shimizu, A. Satsuma, “Reaction Mechanism of H_2-Promoted Selective Catalytic Reduction of NO with NH_3 over Ag-Al_2O_3,” The Journal of Physical Chemistry C, 2007, v. 111, pp. 2259-2264.

184. K. Shimizu, K. Sawabe, A. Satsuma, “Unique catalytic features of Ag nanoclusters for selective NOx reduction and green chemical reactions,” Catalysis Science & Technology, 2011, v. 1(3), pp. 331.

185. R. Burch, J. P. Breen, C. J. Hill, B. Krutzsch, B. Konrad, E. Jobson, “Exceptional activity for NOx reduction at low temperatures using combinations of hydrogen and higher hydrocarbons on Ag-Al_2O_3 catalysts,” Topics in Catalysis, 2004, v. 30 (1-4), pp. 19-25.

186. J.P. Breen, R. Burch, C. Hardacre, C.J. Hill, “Structural Investigation of the Promotional Effect of hydrogen during the Selective Catalytic Reduction of NOx with

hydrocarbons over Ag- Al_2O_3 Catalysts," The Journal of Physical Chemistry B, 2005, v. 220, pp. 4805-4807.

187. U. Kamolphop, S.F.R. Taylor, J.P. Breen, R. Burch, J.J. Delgado, S.C. Hardacre, S. Hengrasmee, S.L. James, "Low-temperature Selective Catalytic Reduction (SCR) of NOx with n-Octane using solvent-free mechanochemically prepared Ag/Al_2O_3 Catalysts," ACS Catalysis, 2011, v. 1, pp. 1257-1262.

188. K. Skalska, J. S. Miller, S. Ledakowicz, "Science of the Total Environment Trends in NOx abatement : A review," Science of the Total Environment, 2010, v. 408(19), pp. 3976-3989.

189. R.J. Kalsabi, N. Mosaddegh, "Pd-poly(N-vinyl-2-pyrrolidone)/KIT-6 nanocomposite: Preparation, structural study, and catalytic activity," Comptes Rendus Chimie, 2012, v. 15, pp. 988–995.

190. S. Arora, R. Prasad, "Effect of Promoters on Performance of Ni/γ-Al2O3 Catalyst in Dry Reforming of Methane," Advances in Nano Energy, 2017, v. 1(2), pp. 107-121.

191. M. Qiu, S. Zhan, H. Yu, D. Zhu, S. Wang, "Facile preparation of ordered mesoporous $MnCo_2O_4$ for low-temperature selective catalytic reduction of NO with NH_3," Nanoscale, 2015, v. 7, pp. 2568-2577.

192. N. Jagtap, S.B. Umbarkar, P. Miquel, P. Granger, M.K. Dongare, "Support modification to improve the sulphur tolerance of Ag/Al_2O_3 for SCR of NOx with propene under lean-burn conditions," Applied Catalysis B : Environmental, 2009, v. 90, pp. 416-425.

193. M.B. Gawande, A. Goswami, F.X. Felpin, T. Asefa, X. Huang, R. Silva, X. Zou, R. Zboril, and R.S. Varma, "Cu and Cu-Based Nanoparticles: Synthesis and Applications in Catalysis," Chemical Reviews, 2016, v. 116, pp. 3722−3811.

194. K. Skalska, J.S. Miller, S. Ledakowicz, “Trends in NOx abatement: A review,” Science of The Total Environment, 2010, v. 408, pp. 3976-3989

195. F. Gao, X. Tang, H. Yi, S. Zhao, C. Li , J. Li, Y. Shi and X. Meng, “A Review on Selective Catalytic Reduction of NOx by NH_3 over Mn-Based Catalysts at Low Temperatures: Catalysts, Mechanisms, Kinetics and DFT Calculations,” Catalysts, 2017, v. 7, pp. 199.

196. V.J. Hall-Roberts, A.N. Hayhurst, D.E. Knight, S.G. Taylor, 2000. “The Origin of Soot In Flames: Is The Nucleus An Ion”. Combustion and Flame, 2000, v. 120, pp.578–584.

197. A.P. Walker, R. Allansson, P.G. Blakeman, M. Lavenius, S. Erkfeld, H. Landalv, B. Ball, P. Harrod, D. Manning and L. Bernegger, SAE Technical Paper, 2003, 2003-01-0778.

198. J.M.P.Q. Delgado, “A critical review of dispersion in packed beds”, Heat Mass Transfer, 2006, v. 42, pp. 279–310.

199. O. Levenspiel, Chemical Reaction Engineering, 3rd Ed., 1999.