

CURRICULUM VITAE

Name: Prof. Dr. Mohammad Farhat Ali

Rank: HEC Foreign Professor

Affiliation (present) June, 2005 H.E.J. Research Institute of Chemistry
International Center for Chemical Sciences
University of Karachi, Karachi

(earlier) 1977-2005 Professor of Chemistry
King Fahd University of Petroleum & Minerals
Dhahran, Saudi Arabia

1984- 1985 Visiting Professor
Department of Chemistry
Cornell University
Ithaca, New York, USA

1968-1977 Manager R&D, Chief Chemist
National Refinery, Karachi, Pakistan

1965-1968 Research Assistant
Department of Chemistry
University of St. Andrews, St. Andrews, UK

1963-1965 Research Officer
Petrochemical & Polymer Research Center
ICI, Runcorn, England

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Education: Ph.D. 1968, University of St. Andrews, Scotland, UK
M.S., 1960, University of Karachi, Karachi, Pakistan
B.S., 1958, Osmania University, Hyderabad, India

Area of Specialization: Mass Spectroscopy, Catalysis, Organometallics, Petroleum
Chemistry, Petrochemicals and Chemical Processes Industries

Courses Taught: CHEM 101 (General Chemistry I)
CHEM 102 (General Chemistry II)
CHEM 355 (Catalysis)
CHEM 450 (Petroleum Chemistry)
CHEM 455 (Industrial Inorganic Chemistry)

CHEM 456 (Industrial Organic Chemistry)
CHEM 535 (Petrochemicals)
CHEM 748 (Catalysis in Industry)

Research Interest:

- Petroleum Refining Chemistry and Technology
- Catalysis
- Recycling of Polymers and Plastics
- Alternative Energy Sources

Major Research Work Completed:

- Organo Phosphorus, - Arsenic and -Antimony Halides.
- Stability Characteristics of Hydrocarbon Fuels.
- Upgrading of Heavy Ends, Asphalts and Asphaltenes.
- Waste Lube Oil Recycling
- Co-processing of Waste Plastics with Petroleum Residues.
- Ultra Deep Desulfurization of Distillate Fuels.
- Spectroscopy.
- Catalytic reactions

Consulting Experience: Research Institute (KFUPM) for Saudi Aramco on (1) Desulfurization of Fuel Oils and (2) Hydrocracking Catalysts Evaluation.

Publications: Authored over 100 journal and conference papers that appeared in leading international periodicals and conference proceedings.
Authored two books.

Professional Memberships:

1. Member American Chemical Society
2. Member ASTM (American Society for Testing & Materials).
3. Fellow Institute of Petroleum, London, U.K.
4. Member, American Society for Mass Spectrometry.
5. Listed in Marquis Who Is Who in the World (2001).

Editorial Board:

1. Petroleum Science and Technology, Marcel Dekker, New York, USA.
2. Energy Sources, Taylor & Francis, London, England, UK.

Thesis Supervision:

1. MS Thesis = 12
2. Ph.D. Thesis = 6

Work Experience:

1. Professor, Chemistry Department, King Fahd University of Petroleum & Minerals 1977- 2005.
2. Coordinator of Oil Testing Center, King Fahd University of Petroleum & Minerals (1977-1996).

3. Head, Industrial Chemistry Division (KFUPM), (1986 – 2005).
4. Manager R & D/Chief Chemist, National Refinery Ltd., Karachi, Pakistan (1968-1977).
5. Research Assistant, Department of Chemistry, University of St. Andrews, Scotland, UK (1965-1968).
6. Technical Officer, Petrochemical & Polymer Research Center, Imperial Chemical Industries, Runcorn, England (1964-1965).
7. Chemist, Hunting Technical Services, Surrey, England (1960-1964).

FUNDED RESEARCH PROJECTS (KFUPM/KACST)

1. Sulfur Compounds in Arab Crude Oils. KFUPM Funded Ref. # CY/ANALYS/11 1980-1982).
2. Characterization of High Boiling Petroleum Distillates from Arabian Crude Oils. SANCST Project AR-03-20 (1983).
3. Characterization of Heavy Ends from Arabian Crude Oils. SANCST Project AR-05-11 (1986).
4. MS-MS Analysis of Geological Biomarker Compounds. KFUPM Funded Ref. # CY/ANALYSIS/110 (1988).
5. Studies on used Lubricating Oil Recovery and Re-refining. KACST Project AR-10-60 (1990).
6. Stability Characteristics of Liquid Fuels. KACST Project AR-12-19 (1992).
7. Adaptation of SHRP Performance Based Asphalt Specifications to the Gulf Countries. KACST Project AR-14-60 (1996).
8. Screening of Commercial Hydrocracking Catalyst. (PN 21165). Saudi ARAMCO/RI (1997).
9. Literature Search on Sulfur and Metal Reduction in Fuel Oils (PN 21162). Saudi ARAMCO/RI (1998).
10. Chemical Composition and Performance Related Properties of Polymer Modified Asphalts. KACST Project LG-2-61 (2000).
11. Waste Plastics-Recovery and Depolymerization with Petroleum Residue, KACST Project AR-18-22, duration 3 years (2002).
12. Structural Studies on Residual Fuel Oil Asphaltenes by Catalyzed Oxidation, SABIC Project, SABIC/2000-01, duration 18 Months (2003).
13. Chemistry of Local Aggregates and their Interaction with Arab Asphalts, KACST Project LG-6-7 (2003).
14. Thermal Decomposition of PVC Mixed Plastics, SABIC-2002/08 (New), 2002.
15. Asphaltene Chemistry During Hydrotreating, KACST Project LG-7-14 (2004).
16. M. F. Ali and B. El Ali, "Handbook of Industrial Chemistry: Organic Chemicals", Book-Writing Proposal, CY/IND.CHEM/250 (approved) October, 2002. Book published By McGraw-Hills Scientific Publishers (December, 2005)
17. Ultra Deep Desulfurization of Diesel Fuels, KFUPM/RI-025 (2004).

**PAPER PRESENTED TO CONFERENCES ETC. AND PUBLISHED IN THE
PROCEEDINGS**

1. M. Farhat Ali, "Sulfur Compounds in Arabian Crude Oils Part 1", Proceedings Arab Chemical Research Project Seminar, Chemistry of Petroleum Products, Jeddah, 24-26 March 1980, paper 32, 54-55 (1980).
2. H. Hamid, H. K. Abdel Aal, A. S. Al-Zakari and **M. F. Ali**, "Dearomatization of Saudi Crude Oil Fractions", Proceedings Arab Chemical Research project Seminar, Chemistry of Petroleum Products, Jeddah 24-26, March 1980 paper 11, 15-16 (1980).
3. M. Farhat Ali, Misbah-Ul-Hasan and M. Saleem, "Distribution of Sulfur Compounds in Arab Crude Oils", Proceedings SPE Conference, Middle East Oil Show, Bahrain, 9-12 March 1981, SPE REF: 9583, 51-56 (1981).
4. M. Farhat Ali and M. Saleem, "Hydrocarbon Composition of Straight-Run Naphtha Cuts from Arab Crudes by GC-MS Method", Proceedings 1st Asian and Pacific Chemistry Congress, 26 April-1 May, 1981, Singapore (1981).
5. M. Farhat Ali, "Study of Composition and Structure of Polynuclear Aromatics in Arab Crude Oils by GC/MS", 1981, International Symposium on Chromatography, Nov. 16-18, 1981, Miami Beach, Florida, USA.
6. M. Farhat Ali, "Sulfur Compounds in Petroleum and its Utilization", 1982, The First Arab Reg. Conf. On Sulfur and its uses in the Arab World, 3-6 April 1982, Kuwait.
7. M. U. Hasan, **M. F. Ali**, and A. Bukhari, "Structural Characterization of Saudi Arabian Medium Crude Oil by NMR Spectroscopy", 1982, ACS 12th Northeast Regional Meeting, June 27-30 1982, University of Vermont, Burlington, USA.
8. M. F. Ali, "Chemical Class Separation and Composition of High-Boiling Petroleum Distillates from Arab Crude Oils", 1982, 3rd Int. Symposium on Environmental Pollution, October 5-6, 1982. Niagra Falls, Canada.
9. M. F. Ali, A. Bukhari and M. Saleem, "Separation and Identification of Acids in High Boiling Arab Crude Oil Distillates by GPC and GC/MS", Pittsburgh Conference and Exposition on Analytical Chemistry and Applied Spectroscopy, March 7-12 1983, Abstract No. 184.
10. I. J. Amster, **M. F. Ali**, and F. W. McLafferty, "Tandem Mass Spectrometry of High Molecular Weight Compounds", 32nd Annual Conference on Mass Spectrometry and Allied Topics, May 27-June 1, 1984, San Antonio, Abstract No. WPB4.
11. M. F. Ali, A. Bukhari, M. Hasan and M. Saleem, "Characterization of Saudi Arabian Crude Oils – Physical and Chemical Separation of Heavy End Fractions", Int. Symposium on Characterization of Heavy Crude Oils, and Petroleum Residues, Lyon, France June 25-27 1984, 373-378.

12. M. F. Ali, "Industrial Utilization of Sulpho-Organic Compounds Produced from Crude Petroleum and Petroleum Products", Proceedings of the Second Arab Regional Conference on Sulphur and its usage in the Arab World, Riyadh, March 2-6, 1985.
13. M. U. Hasan, A. Bukhari and **M. F. Ali**, "Experimental Conditions for the Analysis of Crude Oils by Carbon-13 NMR Spectroscopy", Proceedings of the Conference on Chemistry, Kuwait, 13-16 February, 1983.
14. M. F. Ali, "Mass Spectrometry/Mass Spectrometry Analysis of Petroleum", Proceedings of the Conference Chem Asia 85, Singapore, December 4-6, 1985.
15. M. F. Ali, "Analysis of the Saturate Fraction of High Boiling Distillates from Arabian Crude Oils by MS/MS", Proceedings Asian Chemical Congress'87 Seoul, June 29-July 3, 1987, Seoul, Korea.
16. M. F. Ali and A. Bukhari, "MTBE as a High Octane Blending Component for Gasoline", Abstract of Papers, The Second National Meeting of Chemists, Riyadh, 7-9 March 1987, p. 89.
17. M. F. Ali and A. J. Hamdan, "Energy Conservation by Re-Refining used Lubricating Oils", First Saudi Symposium on Energy Utilization and Conservation, March 4-8 1990, Jeddah.
18. M. F. Ali and A. A. Al-Hajji, "The Study of Nickel and Vanadyl Porphyrins in Saudi Arabian Crude Oils", Paper Presented in American Chemical Symposium on Porphyrins Geochemistry, Washington D.C., 23-28 August, 1992.
19. M. F. Ali and M. Saleem, "Analytical Characterization of Asphaltenes from Saudi Crude Oils", Proceedings of Int. conf. On Chemistry in Industry, Bahrain, Part 1, page 337-350 November (1992).
20. M. F. Ali and M. Saleem, "Structural Parameters of Asphaltenes from Saudi Crude Oils", Proceedings of Int. Conf. On Chemistry in Industry, Bahrain, Part 1, page 321-336 November (1992).
21. M. F. Ali and A. J. Hamdan, "Reactions Involving Nitrogen Compounds & Peroxide Formation in the Jet Fuel Autoxidation Chemistry", First Conference in Chemistry and its Application, Doha, Qatar, December 7-9 (1993).
22. M. F. Ali and A. J. Hamdan, "Chemical Aspects of Thermal Instability in Jet Fuels from Saudi Crude Oils", Symposia, Am. Chem. Soc., Div. of Petroleum Chemistry, San Diego, USA, February (1994).
23. M. F. Ali and A. J. Hamdan, "Waste Lube Oil Re-Refining", Second Saudi Symposium on Energy, Dhahran, 27-30 November (1994).
24. M. F. Ali and A. J. Hamdan, "Role of Nitrogen and Oxygen Containing Compounds in the Instability of Jet Fuels", Second Int. Conf. On Chemistry in Industry, SAICS Chapter of Am. Chem. Soc., Bahrain, Oct 24-26 (1994).

25. M. F. Ali and A. J. Hamdan, "Techno-Economic Study of Waste Oil Re-Refining in Saudi Arabia", American Chem. Society National Meeting, Symposia on Recycling of Waste Materials, Chicago, August (1995).
26. H. I. Al-Abdul Wahhab and M. F. Ali, "Adaptation of SHRP Performance Based Binder Specification to the Gulf Countries", Saudi Engineering Conference, Jeddah (1996).
27. M. F. Ali, "HP-GPC Characterization of Asphalts and Modified-Asphalts", Paper Presented to Symposia, Am. Chem. Soc., Div. of Fuel Chemistry, Orlando, FL, U.S.A., August (1996).
28. M. F. Ali, "Arab Asphalts-Relationship to Rheological Properties and Asphalt Performance", Paper Presented Chemistry in Industry Conference, SAIC/ACS, Bahrain, 18-20 November (1996).
29. M. F. Ali and A. J. Hamdan, "Prospect of Recycling Waste Lubricating Oils in Saudi Arabia", Presented to Development & Environment Impact Conference, Ministry of Municipal and Rural Affairs, Riyadh, Saudi Arabia, 21-23 September (1997).
30. M. F. Ali and M. N. Siddiqui, "The Role of Asphaltenes in Resid Upgrading", Presented in Middle East Petrotech 98, Ministry of Oil and Industry, Bahrain, 14-16 September (1998).
31. M. F. Ali and M. N. Siddiqui, "Arabian-Asphalts-Chemistry and Rheology", Presented to Division of Fuel Chemistry, Am. Chem. Society 216th National Meeting, Boston, August 22-27 (1998).
32. M. F. Ali and M. N. Siddiqui, "Relationship between Asphalt chemical Composition and Performance Related Properties", Laboratory R & D Technical Exchange Meeting, Saudi Aramco, Dhahran, Saudi Arabia, May 1-2 (2000).
33. M. F. Ali and M. N. Siddiqui, "Chemical Composition and Performance Related Properties of Polymer Modified Asphalts", Presented to Division of Petroleum Chemistry, Am. Chem. Soc. 218th National Meeting, New Orleans, August 22-26 (1999).
34. M. F. Ali and M. N. Siddiqui, "Polymer Modified Asphalt's for Paving Application, Proceedings of the 4th International Conf. & Exhibition on Chemistry in Industry, Bahrain, October 30-November 1, 2000.
35. M. F. Ali and M. N. Siddiqui, "Chemical Aspects of Incompatibility in Crude Oil Refining-Structural Studies on Petroleum Residues", Proceedings of the First Saudi Science Conference, KFUPM, Dhahran, 9-11 April (2001).
36. M. N. Siddiqui and M. F. Ali, "Evaluation of Chemical Changes in the Structure of Asphaltenes", First Saudi Science Conference, KFUPM, Dhahran, 9-11 April (2001).
37. M. F. Ali and M. N. Siddiqui, "The Effect of Age Hardening on the Structure of Asphaltenes derived from Arabian Asphalts", American Institute of Chemical Engineers 2002 National Meeting, New Orleans, 10-14 March, 2002.

38. M. N. Siddiqui, M. F. Ali and H. Hamid, "Catalytic Conversion of Waste/Resid Mixtures into Transportation Fuel", Am. Chem. Soc. National Meeting, Boston, USA, August (2002).
39. M. F. Ali, M. N. Siddiqui and H. Hamid, "Study on the Conversion of Waste Plastics/Resid Mixtures to Transportation Fuels", The 2nd International Symposium on Feedstock Recycling of Plastics, ISFR' 2002, Ostend, Belgium, September 8-11 (2002).
40. M. F. Ali, M. N. Siddiqui, "Ruthenium Catalyzed Oxidation of Arabian Asphaltenes", the 2nd Saudi Conference, King Abdulaziz University, Riyadh, 15-17 March 2004.
Ali, M. F.; **Siddiqui, M. N.**; Redhwi, H. H. and Faizur Rahman: "Transportation Fuels from the Catalytic Coprocessing of Waste Plastics with Petroleum Resid", *Proceedings, Petrotech 2003*, Bahrain, September 29-October 1, **2003**.
41. **Ali, M. F. and Siddiqui, M. N.**: "Ruthenium Ion Catalyzed Oxidation of Arabian Asphaltenes", *The Second Saudi Science Conference*", KAAU, Jeddah, Saudi Arabia, March 15-17, 2004.
42. **Ali, M. F. and Siddiqui, M. N.**: "Thermal and Catalytic Decomposition Behavior of PVC Mixed Plastic Waste with Petroleum Resid", *16th International Symposium on Analytical & Applied Pyrolysis "Pyrolysis 2004"*, Alicante, Spain, May 23 –27, 2004.
43. **Siddiqui, M. N.**; **Ali, M. F.** and M. G. Baig: "Chemistry of Bonding between Asphalt and Aggregates", *6th International Conference and Exhibition, on "Chemistry in Industry (CHEMINDIX 2004)"*, Bahrain, September 27-29, **2004**.
44. **Siddiqui, M. N. and Ali, M. F.**: "Effect of Asphalt Oxidation on the Structure of Asphaltenes", *"International Conference on Chemistry and Industry*, Riyadh, Saudi Arabia, December 11-15, **2004**.
46. **Ali, M. F.** and **Siddiqui, M. N.**: "The Conversion of Waste Plastics/Petroleum Residue Mixtures to Transportation Fuels", *"First International Conference - Environmentally Sustainable Development, ESDev-2005"*, Abbottabad, Pakistan, June 26-28, **2005**.
47. **M. N. Siddiqui, M. F. Ali** and M. G. Baig "Effect of Anti-Stripping Agents on Asphalt-Aggregates Interactions", *40th IUPAC Congress, "Innovation in Chemistry"*, Beijing, China, August 14-19, **2005**.
48. **Siddiqui, M. N.**; **Ali, M. F.** and Redhwi, H. H.: "Identification of Polymer Types in Saudi Arabian Waste Plastics", *The 3rd International Symposium on Feedstock Recycling of Plastics (ISFR'05)*, Karlsruhe, Germany, September 25-29, **2005**.
49. **Siddiqui, M. N.** and **Ali, M. F.**: "Catalytic Co-Liquefaction of Model and Waste Plastics", *15th Annual Saudi-Japanese Symposium on Catalysts in Petroleum Refining & Petrochemicals*, KFUPM, The Research Institute, Dhahran, Saudi Arabia, November 27-28, **2005**.
- 50.

DR. MOHAMMAD FARHAT ALI

RESEARCH PUBLICATIONS (Updated: 25 April, 2006)

1. M. F. Ali and G. S. Harris, "Triphenylphosphine-Halogen Adducts of Novel Stoichiometry" Chemical Communications, 819 (1966).
2. M. F. Ali and G. S. Harris, "The Structure of Triphenylphosphine Dihalides in Solution", Tetrahedron Letters, No. 1, 37-38 (1968).
3. M. F. Ali and G. S. Harris, "The Reactions of Trispentafluorophenyl Phosphine and Arsine with Halogens and Interhalogens", Inorg. Nucl. Chem. Letters, Vol. 4, 5-8 (1968).
4. M. F. Ali, "Some Aspects of Organo Phosphorus, "Arsenic, and Antimony Halides", Ph.D. Thesis, St. Andrews University (1968).
5. M. F. Ali and G. S. Harris, "The Reaction of Iodine Chloride with Triphenylarsine Dichloride in Moist Acetonitrile", Inorg. Nucl. Chem. Letters, Vol. 5, 701-702 (1969).
6. M. F. Ali, "Sulfur Compounds in Light Arabian and Kuwait Crude Oils", Pak Jr. Sc. Ind. Res., Vol. 21, No. 1, 29-32 (1978).
7. M. F. Ali and G. S. Harris, "Conductometric Titration Studies of the Reactions of Tris(dimethylamino) phosphine and Tris(dimethylamino) arsine with Halogens and Interhalogens", J. Inorg. Nuc. Chem. Vol. 41, 339-342 (1979).
8. M. F. Ali and G. S. Harris, "Chlorine-containing Halogen Adducts of Triphenylphosphine, Triphenyl Arsine and Triphenylstibine", J.C.S. (Dalton), 1545-1549 (1980).
9. M. F. Ali, M. Saleem and S. M. Ghazali, "Sulfur in Arab Crude Cuts", Hydrocarbon Processing, 129-130, September (1981).
10. M. U. Hasan, M. F. Ali, and A. Bukhari, "Structural Characterization of Saudi Arabian Heavy Crude Oil by N. M. R. Spectroscopy", FUEL, Vol. 62, 518-523 (1983).
11. M. F. Ali, Ahmed Bukhari, and M. Saleem, "Trace Metals in Crude Oils from Saudi Arabia", Industrial & Engg. Chem. Product R & D, Vol. 22, 691-694 (1983).
12. M. F. Ali, M. U. Hasan, and A. Amer, "The Effect of Oxygenates Addition on Gasoline Quality", The Arabian J. of Sci. & Engg., Vol. 9, 221-226 (1984).
13. M. F. Ali, M. U. Hasan, A. Bukhari, and M. Saleem, "Arabian Crude Fractions Analyzed", Hydrocarbon Processing, Vol. 64, No. 2, 83-86 (1985).

14. M. U. Hasan, A. Bukhari, and M. F. Ali, "Structural Characterization of Saudi Arabian Medium Crude Oil by N. M. R. Spectroscopy", *FUEL*, Vol. 64, 839-841 (1985).
15. M. F. Ali, M. U. Hasan, A. Bukhari, and M. Saleem, "Characterization of Arabian Crude Residues", *Oil and Gas Journal*, 71-77, August 12, (1985).
16. M. F. Ali and M. Saleem, "Composition and Properties of Straight Run Naphtha Cuts from Saudi Arabian Crude Oils", *The Arabian J. of Sci. & Engg.*, Vol. II, No. 3, 251-258 (1986).
17. M. F. Ali, A. Bukhari and A. Amer, "Evaluation of Methyl-Tertiary Butyl Ether as a High Octane Blending component for Gasoline", *The Arabian J. of Sci. & Engg.*, Vol. 12, No. 4, 451-458 (1987).
18. M. F. Ali, M. Hasan and A. Bukhari, "Characterization of High-Boiling Petroleum Distillates from Arab Crude Oils", SANCST Project AR-3-020, Final Report, pp. 230 (July 1983).
19. A. Bukhari, M. Hasan and **M. F. Ali**, "Characterization of the Heavy Ends from Saudi Arabian Crude Oils", SANCST Project AR-5-111, Final Report, pp. 173 (February 1986).
20. M. F. Ali and M. Ashraf Ali, "Investigation of Nitrogen Compounds Types in High-Boiling Petroleum Distillates from Saudi Arabian Crude Oils", *Fuel Science & Technology International*, 6(3), 259-290 (1988).
21. M. Z. El-Faer, **M. F. Ali**, H. Asar & Prince Sultan, "Phase Separation in Microgravity-Evaluation of ARABSAT Phase Separation Experiment Results", *The Arabian J. Sc. & Engg.* 13(3), 355-367, (1988).
22. M. F. Ali and M. Saleem, "Asphaltenes in Saudi Arabian Heavy Crude Oil-Solubility and Molecular Weights in Hydrocarbon Solvents", *Fuel Science and Technology International*", 6(5), 541-566 (1988).
23. M. F. Ali and M. A. Ali, "Nonaqueous Potentiometric Titrations and Elemental Analysis of High Boiling Distillates of Arabian Crude Oils", *Fuel Science & Technology International*", Vol. 6, No. 6, 663-686 (1988).
24. M. F. Ali, A. Bukhari, and M. U. Hasan, "Structural Characterization of Arabian heavy Crude Oil Residues", *Fuel Science & Technology Int.*, Vol. 7, No. 8, 1179-1208 (1989).
25. M. F. Ali, H. Perzanowski, and S. A. Koreish, "Sulfur Compounds in High Boiling Fractions of Arab Crude Oils", *Fuel Science & Technology*", 9(4), 397-424 (1991).
26. M. F. Ali, and M. Saleem, "Thermal Decomposition of Saudi Crude Oil Asphaltenes", *Fuel Science & Technology*, 9(4), 461-484 (1991).
27. M F. Ali (P.I.), "Studies on Used Lubricating Oils Recovery & Re-refining", Final Report, KACST Project AR-10-60, April 1992.

28. M. F. Ali et. al., "Nickel and Vanadyl Porphyrins in Arab Heavy Crude Oils", *Energy & Fuels*, 7(2), 179-184 (1993).
29. M. F. Ali and M. Saleem, "Characterization of Asphaltenes from Saudi Arabian Crude Oils by Non-aqueous Potentiometric Titration & Elemental Analysis", *Fuel Science & Tech. Int.*, 12(5), 675-691 (1994).
30. M. F. Ali and M. Saleem, "Composition of Asphaltenes from Saudi Crude Oils", *AJSE Theme Issue*, 19(23), 319-333 (1994).
31. M. F. Ali, A. Nizami and A. J. Hamdan, "Chemical Aspects of Thermal Instability in Jet Fuels from Saudi Crude Oils", *Preprints, Am. Chem. Soc. Division of Petroleum Chem*, 39(1), 67-73 (1994).
32. M. F. Ali, and A. J. Hamdan, "Stability Characteristics of Liquid Fuels", *Final Reports, KACST Project AR-12-19*, April 1994.
33. M. F. Ali, A. Nizami, and A. J. Hamdan, "The Role of Heteroatoms in Jet Fuel Instability", *Fuel Science & Technology*: 13(5), 655-679(1995).
34. M. F. Ali, F. Rehman, and A. J. Hamdan, "Waste Lube Oil Re-Refining in Saudi Arabia", *Preprints, Am. Chem. Soc. Division of Fuel Chemistry* 40(4), 901-907(1995).
35. M. F. Ali, A. J. Hamdan, and F. Rehman", *Techno-Economic Evaluation of Waste Lube Oil Re-Refining*", *Int. J. Production Economics* 42, 263-273(1996).
36. M. F. Ali, et al. "HP-GPC Characterization of Asphalts and Modified Asphalts", *Preprints, Am. Chem. Soc. Division of Fuel Chemistry*, 41(4), 1296-1301(1996).
37. H. I. Al-Abdul Wahhab, M. F. Ali, and I. Asi, "Development of Performance Based Binder Specifications for the Gulf Countries", *Construction & Building Materials J.*, Vol. 11, No. 1, 15-22(1997).
38. H. I. Al-Abdul Wahhab, M. F. Ali, I. Asi, and I. Al-Dubabe", *Adaption of SHRP Performance Based Binder Specifications to the Gulf Countries*", *Final Report, KACST Project AR-14-60*, July 1996.
39. J. W. Shirkoff, M. N. Siddiqui and M. F. Ali, "Characterization of the Structure of Saudi Crude Asphaltenes by X-ray Diffractin", *Energy & Fuels II*, 561-565(1997).
40. I. M. Asi, H. I. Al-Abdul Wahhab, I. A. Al-Dubabe, and M. F. Ali, "Performance Modeling of Arabian Asphalt using HP-GPC", *J. of Materials Eng. And Performance*, 6, (4), 503-510(1997).
41. M. F. Ali, H. I. Al-Abdul Wahhab, and I. Asi, "Physico Chemical Characterization of Gulf Asphalts", *Petroleum Science & Technology Intl.*, 16(1 & 2), 71-90(1998).
42. M. F. Ali and M. N. Siddiqui, "Arabian Asphalts-Chemistry and Rheology", *Preprints Div. of Fuel Chemistry, Am. Chem. Soc.*, 43(4), 1063-1068(1998).

43. M. F. Ali, H. I. Abdulwahhab, I. Asi, I. A. Al-Dubabe, "Characterization of Polymer Modified Gulf Asphalts", *Petroleum Science & Technology*, 17(1 & 2), 125-145(1999).
44. H. I. Al-Abdul Wahhab, I. Asi, M. F. Ali and I. A. Al-Dubabe, "Prediction of Asphalt Rheological Properties using HP-GPC", *J. of Materials in Civil Eng.*, Vol. 11, No. 1, 6-14(1999).
45. M. N. Siddiqui and M. F. Ali, "Studies on the Aging Behavior of the Arabian Asphalts:", *Fuel*, Vol. 78, No. 9, 1005-1015(1999).
46. M. N. Siddiqui and M. F. Ali, "Investigation of Chemical Transformations by NMR and GPC during the laboratory Aging of Arabian Asphalt, *Fuel*, Vol. 78, 1407-1416 (1999).
47. M. F. Ali and M. N. Siddiqui, "Chemical Composition and Performance Related Properties of Polymer Modified Arab Asphalts", *Preprints of Div. of Petroleum, ACS*, 44(3), 358-362 (1999).
48. M. F. Ali and M. Alqam, "The Role of Asphaltenes, Resins and other Solids in the Stabilization of Water in Oil Emulsions and its Effects on Oil Production in Saudi Oil Fields, *Fuel*, 79, 1309-136 (2000).
49. A. M. Aitani, M. F. Ali and H. H. Al-Ali, "A Review of Non-conventional Methods for the Desulfurization of residual Fuel Oil", *Petroleum Science and technology*, Vol. 18, No. 5 & 6, 537-554 (2000).
50. M. F. Ali and M. N. Siddiqui, "Changes in Asphalt Chemistry & Durability during Oxidation and Polymer Modification", *Petroleum Science and Technology*, Vol. 19, No. 9 & 10, 1229-1249 (2001).
51. M. N. Siddiqui, M. F. Ali and J. Shirkoﬀ, "Use of X-ray Diﬀraction Techniques in Assessing the Aging Pattern of Asphalt Fractions", *Fuel* 81 (1), 51-58 (2002).
52. M. F. Ali, A. R. Khadrawi, H. Perzanowski and H. I. Halpern, "Central Saudi Arabian Crude Oils: A Geochemical Investigation", *Petroleum Science & Technology*, 20, (5 & 6), 633-654 (2002).
53. M. F. Ali and M. N. Siddiqui, "The Effect of Age Hardening on the Structure of Asphaltenes", *AIChE Proceedings of the 3rd International Conference on Petroleum Phase Behavior and Fouling*, New Orleans, 46-52 (2002).
54. M. F. Ali, M. N. Siddiqui and S. H. Hamid Redhwi, "Study on the Conversion of Waste Plastics/Petroleum Resid Mixtures to Transportation Fuels", *Material Cycles and Waste Management*, 6, 27-34 (2004).
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