

List of Research Publications and Research Projects

1. List of Research Publications:

A) *Latest Publications in International Journals*

1. Mahto, Vikas “Study the effect of various organic polymers on the rheology of water based drilling fluids” (communicated)
2. Mahto, Vikas and Maurya A.K. “ Study the effect of hydroquinone and hexamine on PHPA based polymer gel system for Water shut-off jobs” (Communicated)
3. Mahto, Vikas “Study the combined effect of sodium carboxy methyl cellulose and tamarind gum on rheology of water based drilling fluids” (Communicated)
4. Mahto, Vikas and Sharma, V.P. “Characterization of Indian Bentonite Clay Samples for Water Based Drilling Fluids”. Petroleum Science and Technology, Vol 26, Issue 15, 2008, pp 1859-1868
5. Khan, A.R, Mahto, Vikas, Fazal, S.A. & Laik, S. “Studies of wax deposition onset in case of Indian crude oil” Petroleum Science and Technology , Vol 26, Issue 14, 2008, pp 1706-1715
6. Sharma, V.P. & Mahto, Vikas “ Studies on less expansive environmentally safe polymers for development of water based drilling fluids” website: www.spe.org
7. Mahto, Vikas & Sharma V.P. “ Tragacanth Gum: An effective oil well drilling Fluid additive” Energy Sources Vol 27, No. 3, 2005, pp 299-308
8. Mahto, Vikas & Sharma V.P. “Rheological study of a water based oil well drilling fluid” Journal of Petroleum science and engineering, 45 (2004) 123-128
9. Sharma V.P. & Mahto Vikas “An overview of the recent developments on safety issues & environmental consideration in deep water drilling fluid Technology, May-September 2003, Oil Asia Journal, International Edition, pp. 19, 51-52

* Occupied **three times** position in the **Science Direct Top 25 Hottest Research Articles (20 th position on July- Sept 2004, 8th Position on Oct-Dec 2004 and 9th position on April –June 2004)** within the Journal of Petroleum Science and Engineering.

B) Latest Publications in National Journals

1. Sharma, Saurabh, Mahto Vikas, Sharma, V.P. and Laik, S. “ Development of Polyacrylamide-Resorcinol-Formaldehyde System for profile modification in Reservoir Rock” (Communicated)
2. Sharma, U.P, Mahto, Vikas & Sharma, V.P. “Advances in selection criteria of wells for gel treatment: An Overview”, *Drilling and Exploration World*, March 2009, pp-37-40.
3. Mahto, Vikas & Pathak, A.K. “ Safety and Health Management in Coal Liquefaction Processes” *Macmillan Advanced Research Series*, Macmillan Publishers India Ltd.,2009,pp- 456-459
4. Kumar, A. Senthil, Mahto, Vikas & Sharma, V.P. “ Behaviour of organic polymers on the rheological properties of Indian bentonite water based drilling fluid system and its effect on formation damage, *Indian Journal of Chemical Technology*, Vol.10, Sept. 2003, pp 525-530

C) Latest Publications in the Proceedings of International Conferences/Seminars

1. Laik S. & Mahto, Vikas “ Selection of Artificial Lift Systems for the production of Coal Bed Methane Gas: An Overview” (Communicated)
2. Mahto, Vikas “Management of naturally occurring radioactive materials in Petroleum Industry: An Overview” *Proceedings of ISFL 2008* held on March 9-12, 2008 at New Delhi
3. Mahto Vikas “Role of Polymer Nanogels for profile modification in Petroleum reservoir rock” *Proceedings of APA International conference on Advances in polymer Science & technology* held on Jan 28-31 at IIT New Delhi.
4. Mahto, Vikas & Maurya, A.K. “Studies on polymer based gel system to control excessive water production in oil fields” *proceedings of International Congress of Chemistry and Environment* to be held on Nov. 18-20, 2007 at Kuwait University, Kuwait”.
5. Mahto Vikas. “Development of water based drilling fluids using tamarind gum and partially hydrolyzed polyacrylamide” *Proceedings of MPT-2007*,

International Seminar on Mineral Processing Technology, February 22-24, 2007

6. Sharma, V.P. & Mahto, Vikas “ Studies on less expansive environmentally safe polymers for development of water based drilling fluids” Proceedings of 2006 SPE , Asia Pacific oil and Gas Conference and Exhibition, Australia
7. Sharma, V.P. & Mahto, Vikas, “Environmental Management of Petroleum hydrocarbon contaminated soil and ground water” Proceedings of 4th International symposium on Fuels and Lubricants (ISFL-2004) , October 27-29, 2004, New Delhi
8. Sharma V.P. & Mahto Vikas “ An overview of the recent developments on safety issues & environmental consideration in deep water drilling fluid technology, Proceedings of PETROTECH-2003 held at New Delhi on January 9-12, 2003

D) Latest Publications in the Proceedings of National Conferences/Seminars

1. Mahto, Vikas & Pathak, A.K. “ Safety and Health Management in Coal Liquefaction Processes” presented on conference on Advances in chemical engineering held at Thapar University Patiala on February 27-28 2009
2. Mahto, Vikas “Emerging Technologies for the Treatment of produced water from oil fields: An Overview” Proceedings of the National Conference on “Recent Advances in Waste Management (RAWM-2009) held at ITBHU Varanasi on February 20-21,2009.
3. Kumari, Sudha & Mahto, Vikas “Recent strategies for the production of biodiesel from waste cooking oil: An overview” Proceedings of National Seminar on Environmental Issues on Geotechnics and Mineral Industry, B.I.T. Sindri, Dhanbad, April 4-5, 2008.
4. Mahto, Vikas “Environmental management in oil well drilling operations: An overview” Proceedings of NCFCE 2007 on Dec.12-14 2007 at IIT Guwahati.
5. Mahto, Vikas “Commercial production of natural gas hydrates: Options and Challenges” National Seminar on Gas Hydrates-A potential source of Energy to be held at NGRI, Hyderabad on February 5-6, 2007.
6. Mahto, Vikas “ Recent advances in waste minimization techniques at oil well drill site: An overview” Proceedings of All India Seminar on Catalysing Vision 2020: Challenges of Indian Chemical Engineers, N.I.T. Rourkela, January 2007

7. Mahto Vikas & Kumar Dheeraj. "Emerging Developments of Drilling Technologies for underground coal gasification process wells: An Overview, Proceedings of UMC-2006, National Conference on Underground Coal Mining held at Indian School of Mines, Dhanbad on Nov. 9-10, 2006, p 379-383.
8. Mahto, Vikas. "Recent advances in waste minimization techniques at oil well drill site: An overview" Accepted for oral presentation on CV-2020, Catalyzing Vision: 2020: Challenges of Indian Chemical Engineers held on January 6-7, 2007.
9. Mahto, Vikas & Singh, S.P. "Simulation of biodegradation of phenolic compounds in a fluidized bed bioreactor" Proceedings of REACTOR-2006, National conference on Reactor Design, Simulation & Operation held at H.I.T. Haldia on 24-25 March 2006
10. Mahto, Vikas & Singh, S.P. "Solid waste management in Petroleum Refining Industries" Proceedings of Waste management in chemical and allied industries: A vision 2020(WMCI-2005) held at N.I.T. Rourkela on 1-2 Oct. 2005, pp- 138-142
11. Mahto, Vikas & Laik, S. "Environmental aspects of coal bed methane production technology" Proceedings of First Indian Mineral Congress held at I.S.M. Dhanbad on February 28-March1, 2005, pp. 106-111
12. Laik, S. & Mahto, Vikas "Emerging developments on Coal bed methane production technology: An overview" Proceedings of First Indian Mineral Congress held at I.S.M. Dhanbad on February 28-March1, 2005, pp. 106-111
13. Singh, S.P. & Mahto, Vikas " Direct prediction of expanded bed height as a function of reduced Reynolds number in a Gas solid Fluidization, Proceedings of Ist National conference of research scholars and young scientists in chemical engineering held at I.I.T. Kharagpur on September 25-27, 2004
14. Sharma, V.P., Mahto, Vikas & Nath, J.D. "An overview of the recent technological development for removal of hydrocarbons from oil contaminated soils and ground water" Proceedings of the conference on Environment Management & Emerging Trends in Petroleum Sector held at Goa on February 25-27, 2004.

2. List of Projects implemented

1. a) **Title of the Project:** Study the differential sticking behavior caused by water based drilling fluids
b) **Funding Agency:** ISM
c) **Status:** on going
d) **Principal Investigator:** Dr. Vikas Mahto

2. a) **Title of the project :** Study the variation in rheological properties of Indian Waxy crude oils using organic polymers
b) **Funding Agency:** UGC
c) **Status :** on going
d) **Principal Investigator :** Dr. Vikas Mahto
e) **Co-Investigator:** Dr. V.P. Sharma

3. a) **Title of the Project:** Experimental Studies, Modeling and Simulation of Polymer gel system for profile modification in petroleum reservoir rock
b) **Funding Agency:** CSIR
c) **Status:** on going
d) **Principal Investigator:** Dr. Vikas Mahto