



## Pereira, Pedro

Professor, Department of Chemical and Petroleum Engineering

Selected Publications (2008-2011)

- Nashaat N. Nassar\*, Azfar Hassan, Pedro Pereira-Almao, 2011, "Comparative oxidation of adsorbed asphaltenes onto transition metal oxide nanoparticles". *Colloids and Surfaces A: Physicochem. Eng. Aspects* 384: 145–149.
- Nassar N.N., Hassan A., Carbognani L., Lopez-Linares F., Pereira-Almao P., 2011, Iron oxide nanoparticles for rapid adsorption and enhanced catalytic oxidation of thermally cracked asphaltenes. In press in *Fuel*.
- Nassar N.N., Hassan A., Pereira-Almao P., 2011, Effect of surface acidity and basicity of aluminas on asphaltene adsorption and oxidation. *Journal of Colloid and Interface Science*, 360: 233–238.
- Vitale G., Frauwallner M.L., Hernandezb E., Scottb C.E., Pereira-Almao P., 2011. Low temperature synthesis of cubic molybdenum carbide catalysts via pressure induced crystallographic orientation of MoO<sub>3</sub> precursor, *Applied Catalysis A: General* 400: 221–229.
- Frauwallner M.L., López-Linares F., Lara-Romero J., Scott C.E., Ali V., Hernández E., Pereira-Almao P., 2011. Toluene hydrogenation at low temperature using a molybdenum carbide catalyst. *Applied Catalysis A: General* 394: 62–70.
- Nassar N.N., Hassan A., Pereira-Almao P., 2011. Metal Oxide Nanoparticles for Asphaltene Adsorption and Oxidation. *Energy Fuels*, 25: 1017–1023.
- Nassar N.N., Hassan A., Pereira-Almao P., 2011. Application of Nanotechnology for Heavy Oil Upgrading: Catalytic Steam Gasification/Cracking of Asphaltenes. *Energy Fuels* 25: 1566–1570.
- Carbognani L., Carbognani-Arambarri L., Lopez-Linares F., Pereira-Almao P., 2011. Suitable Density Determination for Heavy Hydrocarbons by Solution Pycnometry: Virgin and Thermal Cracked Athabasca Vacuum Residue Fractions. *Energy Fuels* 2011, 25, 3663–3670.
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- Lopez-Linares F., Carbognani L., Spencer R.J., Pereira-Almao P., 2011. Adsorption Studies in Athabasca Core Sample: Virgin and Mild Thermal Cracked Residua. *Energy Fuels* 25: 3657–3662.



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Selected Publications (2008-2011)

Nassar N.N., Hassan A., Pereira-Almao P., 2011. Effect of the Particle Size on Asphaltene Adsorption and Catalytic Oxidation onto Alumina Particles,. *Energy Fuels* 25: 3961–3965

Lopez-Linares F., Carbognani L., Hassan A., Pereira-Almao P., Rogel E., Ovalles C., Pradhan A., Zintsmaster J., 2011. Adsorption of Athabasca Vacuum Residues and Their Visbroken Products over Macroporous Solids: Influence of Their Molecular Characteristics. *Energy Fuels* 25: 4049–4054.

Zamani A., Maini B., Pereira-Almao P., 2011. Flow of Nanodispersed Catalyst Particles Through Porous Media: Effect of Permeability and Temperature. *THE CANADIAN JOURNAL OF CHEMICAL ENGINEERING* 9999: 1-11.

Pereira-Almao P., Alberto V., Marcano A., Lopez-Linares F. and Vasquez A., 2011. Ultradispersed catalyst compositions and methods of preparation. US patent 2011/0105307 A1.