

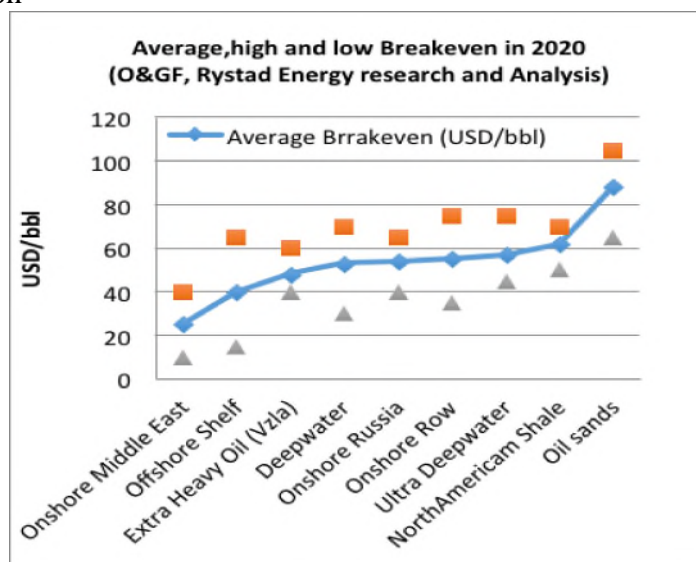
ROLE OF NANOTECHNOLOGY IN ENERGY AND ENVIRONMENT  
**DR. NASHAAT N. NASSAR 1, PR HACINI MESSAOUD 2, MR ABBAS HADJ ABBAS 3.**

(1) Department of Chemical and Petroleum Engineering  
 University of Calgary  
 (2 et 3) Université de Ouargla.

Outlines

- Introduction “the big picture”
- Dr. Nassar Group for Nanotechnology Research
- Asphaltenes and its problems
- How nano can play roles
- Samples of our findings
- Acknowledgments

Current situation



Conclusion

- Stone Age: humans learned to fashion tools from rocks
- Bronze Age: humans learned to smelt copper
- Iron Age: humans learned to forge iron and steels
- Information Age: humans learned to purify silicon
- **Nano Age**
- \_\_\_\_\_: humans learned to make and manipulate nano-scale materials