



**Ran Qi**

**Home Country**  
**China**

**Degree**  
**PhD in Petroleum**  
**Engineering**

**Expertise**  
**Petroleum**  
**Engineering**

**Research Focus**  
**Modeling and**  
**Designing of Carbon**  
**Dioxide Storage in**  
**Aquifers**

**Host University**  
**Imperial College**  
**London,**  
**United Kingdom**

**Fellowship Awarded**  
**2006**

Ran Qi was born near the Shengli Oilfield, the second-largest oilfield in China. Her father is a professor of petroleum engineering at the University of Petroleum China (UPC), and she says that the strong influence of her family led to her interest in petroleum engineering.

Ran chose to study at the University of Petroleum (Beijing), one of the campuses of UPC, where she obtained her undergraduate degree with first-class honors in oil and gas storage and transportation engineering. She obtained her MSc in petroleum engineering at Imperial College London in 2005, and later that year began work on her PhD in petroleum engineering.

Ran's research interest is the simulation of geological carbon dioxide (CO<sub>2</sub>) storage. It includes the modeling and designing of carbon dioxide storage in aquifers to maximize carbon dioxide storage and in oil reservoirs to maximize both carbon dioxide storage and oil recovery.

China is the world's second-largest consumer of energy and contributes 14 percent to global CO<sub>2</sub> emissions. As well, China is building many coal-fired power stations to fuel its growing energy needs.

Without carbon capture and storage, this will lead to increased atmospheric emissions of CO<sub>2</sub>. Many oil reservoirs in China are at a mature stage of development and require enhanced recovery to maintain production. A workflow to develop carbon capture and storage will provide an attractive solution to this problem as evidenced by the recent interest of the Chinese government and petroleum industry.

Ran is looking forward to being involved in the application of carbon capture and storage in China and to perform further research on the implementation of carbon storage schemes to oil reservoirs and other geological storage sites in China.