

# CURRICULUM VITAE OF LU WANG

**Name :** Lu Wang (王璐)  
**Gender:** Female  
**Date of Birth:** Sep 23, 1989  
**Place of Birth:** Baotou, Nei Mongol  
**Address:** School of Water Resources and Environment,  
China University of Geosciences (Beijing)  
Xueyuan Road 29, Beijing 100083, China  
**Mobile Phone:** +8610-15652925684  
**E-mail:** [wanglu@cugb.edu.cn](mailto:wanglu@cugb.edu.cn)

## **1. EDUCATION**

Sep 2014 - Present

School of Water Resources and Environment, China University of Geosciences (Beijing).  
Ph.D. Geohydrology  
Area of specialization: surface chemistry  
Advisor: Prof. Qingchun Yu

Sep 2012- Jun 2014

School of Water Resources and Environment, China University of Geosciences (Beijing).  
M.S Hydraulic Engineering  
Area of specialization: carbon capture and storage  
Thesis: CO<sub>2</sub> solubility in brine.  
Advisor: Prof. Qingchun Yu

Sep 2008- Jun 2012

North China Electric Power University (Baoding)  
B.S Environment Engineering

## **2. SCIENTIFIC AND PROFESSIONAL PUBLICATIONS (First Author)**

### **2.1. Journal Publications**

1. **Wang, L.**, Shen, Z., Hu, L., Yu, Q. C.(2014). Modeling and measurement of CO<sub>2</sub> solubility in salty aqueous solutions and application in the Erdos Basin. *Fluid Phase Equilibria*, 377:5-55.
2. **Wang, L.**, Yu, Q. C. The effect of Ca<sup>2+</sup> and Mg<sup>2+</sup> on the solubility of CO<sub>2</sub> in the formation brine. *Hydrogeology & Engineering Geology*. 2015.1 (in Chinese with English abstract, in press).

### **2.2. Conference Papers**

1. **Wang, L.**, & Yu, Q., (2014). The Model and Experiments of Solubility of CO<sub>2</sub> in Saline with Complex Ions. IAEG XII congress Torino 2014: *Engineering Geology for Society and Territory*-Volume 1 (pp. 505-509). Springer International Publishing.
2. **Wang, L.**, Yu, Q., Xia, L., & Zheng, Y.,(2014) Modeling of CO<sub>2</sub> Solubility in Salty Aqueous Solutions at Geological Sequestration Conditions. *7th Intl. Congress on Env. Modelling and*

*Software*. San Diego, CA, USA.

3. **Wang, L.**, Yu, Q. C. (2014) The model for solubility of CO<sub>2</sub> in saline groundwater with complex ions and the application on Erdos basin. *5th Congress of Underground Waste Disposal*. Sichuan, China.

### **3. PARTICIPANT PROJECTS**

Key technology study of CO<sub>2</sub> geological storage in deep saline aquifer—Physical modelling and parameter measurement of CO<sub>2</sub> geological storage in low permeability reservoir stratum (201211063-04), supported by Ministry of Land and Resources, China.

Physical modelling of CO<sub>2</sub> geological storage in Cambrian and Ordovician stratum of major sedimentary basins in China, Supported by Ministry of Land and Resources, China.

### **4. HONOR AND AWARDS**

- “First Place Student Paper” in the 7th International Congress on Environmental Modelling and Software in 2014.
- “Best presentation student” in the 7th International Congress on Environmental Modelling and Software in 2014.
- Third Prize of the Academic Scholarship in (2010-2011) in North China Electric Power University (Baoding).
- Third Prize of the Academic Scholarship in (2009-2010) in North China Electric Power University (Baoding).
- Second Prize of the Academic Scholarship (2008-2009) in North China Electric Power University (Baoding).

### **5. STATEMENT OF RESEARCH**

I am in my first year of Ph.D. at China University of Geosciences (Beijing) in the field of interfacial phenomenon, mainly on the experimental and surface chemical calculation of gas (CO<sub>2</sub>/CH<sub>4</sub>) and porous media interaction.

In the years from 2012 to 2014, I conducted a series of experiments to measure CO<sub>2</sub> solubility in solutions with mixed ions. Then I proposed two analytical models to estimate the CO<sub>2</sub> solubility at high pressures, with the effects of cations on the solubility quantified. The results were published on *Fluid Phase Equilibria*. Another paper was presented in the 7th International Congress on Environmental Modelling and Software (iEMSs) in June, 2014 and was selected as the “First Place Student Paper”.

In the year of 2014, my research focuses on the adsorption of methane on moist nano-silica. As far as I learn from the published papers, your group was exploring the geological fluid interaction with porous media at the pore scale. Your recent study about the wetting process deeply attracts me and I’m wondering if you are interested in the effect from mixed ions on the interaction of CO<sub>2</sub>-brine during the dewetting process? One of my other interests is quantum chemistry. If you are willing to try computational simulation of surface energy between molecules of different phases, I think it worthwhile pursue.