



# NGUYEN THANH DANH

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 Vietnamese

## RESEARCH INTERESTS

- **Nanotechnology**
  - ✓ Manufacturing and characterization
  - ✓ Clean energy technology
- **Biomedical application**
  - ✓ SERS and plasmonic sensor
  - ✓ Biosensors and mobile sensing
- **Computational and Machine Learning**
  - ✓ Matter-molecule interaction
  - ✓ Electrical, optical, physical properties

## PUBLICATIONS

- **Thanh Danh Nguyen**, Min Seok Song, Nguyễn Hoàng Ly, So Yeong Lee, Sang-Woo Joo, Surface-enhanced Raman lancets for detecting hypoxia levels, *Angew. Chem. Int. Ed.* (2018), In Preparation.
- Erdene-Ochir Ganbold, **Thanh Danh Nguyen**, Nguyen Hoang Ly, Sang-Woo Joo, Raman spectroscopy and density functional theory study of energetically closely separated C2'-endo and C3'-endo pentose forms in purine nucleoside analogue drug-gold conjugates, *J. Raman Spectrosc.* (2018), 1-7.
- Nguyen Hoang Ly, **Thanh Danh Nguyen**, Sang-Woo Joo, Interaction between diethyldithiocarbamate and Cu(II) on gold in non-cyanide wastewater, *Sensor* **17** (2017), 2628-2638.
- Nguyen Hoang Ly, **Thanh Danh Nguyen**, Sang-Woo Joo, Spectroscopic measurements of interactions between hydrophobic 1-pyrenebutyric acid and silver colloidal nanoparticles, *Colloids Surf. A* **518** (2017), 295-303.
- Dinh Bao Nguyen, **Thanh Danh Nguyen**, Sangsoo Kim, Sang-Woo Joo, Vibrational fingerprints of N6-methyladenine and N6,N6-dimethyladenine in Raman spectra, *Vib. Spectrosc.* **90** (2017), 7-13.
- Dinh Bao Nguyen, **Thanh Danh Nguyen**, Sangsoo Kim, Sang-Woo Joo, Raman spectroscopy and quantum-mechanical analysis of tautomeric forms in cytosine, 5-methylcytosine on gold surfaces, *Spectrochim. Acta A* **174** (2017), 183-188.

## EDUCATION

**Master Degree of Chemistry, Soongsil University, Seoul, Korea (2018)**

- GPA: **9.65/10**
- Thesis: "Application of nanopipette surface enhanced Raman sensors for detection of hypoxia levels in A549 cancer cells".

**Bachelor Degree of Chemical Engineering, Bach Khoa University, Ho Chi Minh, Vietnam (2014)**

- GPA: **8.87/10 (1<sup>st</sup> rank graduation)**
- Thesis: "Application of cavitation hydraulic technology to generate drilling fluid from bentonite Di Linh – Lam Dong".

## WORKING EXPERIENCE

**Process Engineer at PetroVietnam Engineering JSC, Ho Chi Minh, Vietnam (2014 - 2016)**

- Modeling, simulating and calculating petrochemical engineering processes based on HYSYS, PROII and OLGA software.
- Creating and elaborating spreadsheets of equipment calculation, reports and AutoCAD drawings.

## QUALIFICATIONS

**Language:** Vietnamese (native) and English (**IELTS 7.0**)

### Honors and Awards

- The best student with highest GPA in the department of Chemical Engineering (2014).
- The UOP Scholarship from UOP Honeywell, USA (2013).
- The Kanden SS Scholarship from Kanden Company, Japan (2013).
- The Odon Vallet Scholarship from Rencontres Du Vietnam, France (2012).
- The Lawrence S. Ting Scholarship from Lawrence S. Ting Memorial Fund, Taiwan (2012).

### Skills

- Fluently utilizing simulation Program (FDTD Numerical Solution, DFT Gaussian, VEDA, petrochemical modeling packages) and Graphical drawing programs (AutoCAD, 3DXmax, Solidworks).
- Competently using English in public speaking and conversation.
- Effectively work in team as a team leader in both academic and voluntary activities.

## HOBBIES

- Yoga, music, reading books, learning new technology and balancing life.

## REFERENCES

- **Kim Phung Le**, Associate Professor  
Department of Chem. Eng., Bach Khoa University, Vietnam.  
Email: [phungle@hcmut.edu.vn](mailto:phungle@hcmut.edu.vn)
- **Kim Lam Huynh**, Associate Professor  
School of Biotechnology, International University, Vietnam.  
Email: [hklam@hcmiu.edu.vn](mailto:hklam@hcmiu.edu.vn)