

# SCIENTIFIC CURRICULUM VITAE



## I. Personal Information

Name: **TRAN QUOC TOAN**  
Gender: Male  
Date of birth: July 04, 1984  
Place of birth: Bim Son Town – Thanh Hoa Province  
Homeland: Nga Tien Commune – Nga Son District – Thanh Hoa Province  
Position: Lecturers Chemistry Faculty of Thai Nguyen University of Education.  
Degree: Doctor      Year: 2017      Major: Physical Chemistry  
Teaching subjects: Electrochemistry; Physical and chemical experiments; Natural Science II; Natural science topics about chemistry in high school; Informatic Application in Chemistry Teaching; Experimental activities in chemistry teaching, Chemical experiments in high schools, Pedagogical practice 2.  
Research area: Slow-release fertilizer and multifunctional fertilizer. synthesize and apply advanced materials with high features (nano, polymers ...) in environmental treatment, agriculture, biomedical and pharmaceutical. Active teaching methods in chemistry.  
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## II. Qualifications

- 2006: B.Sc in Chemistry in Education, Thai Nguyen University of Education.
- 2009: M.Sc in Analytical Chemistry, Thai Nguyen University of Education.
- 2017: Ph.D in Physical Chemistry, Graduate University of Science and Technology – Vietnam Academy of Science and Technology

## III. Các công trình khoa học đã công bố

### **\*Articles in international Journals**

[1]. Ha Xuan Linh, Ngo Thi Thu, **Tran Quoc Toan**, Do Tra Huong, Bui Thanh Giang, Huynh Ky Phuong Ha, Hong-Tham T. Nguyen, N. T. K. Chung, Tri Khoa Nguyen, Nguyen Thanh Hai (2019), Fast and effective route for removing of methylene blue from aqueous solution by using red mud-activated graphite composites, *Hindawi Journal of Chemistry*, Article ID 2858170, 7 pages; <https://doi.org/10.1155/2019/2858170> (SCIE, Q2); IF=1,726.

### **\*Articles in national Journals**

[1]. Trinh Duc Cong, Nguyen Van Khoi, **Tran Quoc Toan** (2012), Study on the interaction between copolime of acrylic acid and acrylamite with bentonite of Binh Thuan, *Vietnam Journal of Chemistry*, Vol. 50, No. 4B, pp. 92-94.

[2]. **Tran Quoc Toan**, Mai Xuan Truong (2013), Simultaneous determination of vitamin C, citrate and oxalate in the urine using kinetic spectrophotometric method, *Journal of Science and Technology Thai Nguyen*, Vol. 106, No. 06, pp. 3-8.

[3]. Truong Thi Thao, Pham Thi Hien Luong, **Tran Quoc Toan** (2015), Studies using extracts green tea as a corrosion inhibitor for CT38 steel in 0.01M HCl Solution, *Journal of Science and Technology Thai Nguyen*, Vol. 135, No. 05, pp. 179-183.

[4]. **Tran Quoc Toan**, Nguyen Van Khoi, Dinh Thuy Van, Truong Thi Thao (2015), Study of optimal conditions for processing slow release ure super absorbent polimer based integrated water from poliacylamit, *Journal of Science and Technology Thai Nguyen*, Vol. 140, No. 10, pp. 91-96

[5]. **Tran Quoc Toan**, Nguyen Trung Duc, Nguyen Thu Huong, Nguyen Van Khoi, Nguyen Thanh Tung, Pham Thi Thu Ha (2016), Synthesis and properties of slow-release urea fertilizer, *Vietnam Journal of Chemistry*, Vol. 54, No.5e1,2, pp.106-110.

[6]. **Tran Quoc Toan**, Nguyen Van Khoi, Tran Dai Lam (2016), Research interaction between poliacylamitde with ure and bentonite Binh Thuan, *Journal of Science and Technology Thai Nguyen*, Vol. 151, No. 06, pp. 207-210

[7] **Tran Quoc Toan**, Nguyen Van Khoi, Nguyen Thanh Tung, Tran Dai Lam, Ngo Thi Minh Trang, Tran Thi Thuy Duong (2016), Synthesis and properties of slow released ure fertilizer based on polyvinyl alcol and clay, *Proceedings of the sixth national student-teacher-training conferences for students and young professionals*, pp. 953-961

[8]. **Tran Quoc Toan**, Nguyen Van Khoi, Nguyen Thanh Tung, Nguyen Trung Duc, Do Cong Hoan, Nguyen Thu Huong (2016), Effect of slow-release urea fertilizer

on growth and yield of winter melon no.1 in Thai Nguyen, *Journal of Science and Technology Thai Nguyen*, Vol. 158, No. 13, pp. 67-71

[9]. **Tran Quoc Toan**, Nguyen Van Khoi, Nguyen Thanh Tung, Tran Dai Lam, Dinh Thuy Van (2016), Research interaction between polivinyll ancol, polivinyll axetat with urea and bentonite Binh Thuan, *Journal of Science and Technology Thai Nguyen*, Vol. 159, No. 14, pp. 35-38

[10]. **Tran Quoc Toan**, Nguyen Trung Duc, Nguyen Thu Huong, Nguyen Van Khoi, Nguyen Thanh Tung, Hoang Thi Van An (2016), Effect of binder and coating thickness on the nutrient release behaviour of granular slow-release Urea fertilizer, *Vietnam Journal of Chemistry*, Vol. 54, No 6e2, pp. 86-90.

[11]. **Tran Quoc Toan**, Nguyen Thanh Tung, Nguyen Trung Duc, Do Cong Hoan, Nguyen Thu Huong (2017), Effects of slow-release fertilizer on the yield and economic efficiency of commercial tea plantation In Dong Hy district, Thai Nguyen province, *Journal of Science and Technology Thai Nguyen*, Vol. 161, No 01, pp. 45-49

[12]. **Tran Quoc Toan**, Nguyen Thi Han, Nguyen Ngoc Linh, Tran Thi Thuy Duong, Tran Van Nam (2017), Research interaction between polivinyll ancol with ure, bentonit binh thuan and effect of binder to granular urea fertilizer, *Huaf Journal of Agricultural Science and Technology*, Vol. 1, No 01, pp. 131-137

[13]. **Tran Quoc Toan** (2017), Preparation and characterization of slow released ure fertilizer based on polyvinyl acetate and clay, *Journal of Science and Technology Thai Nguyen*, Vol. 169, No 09, pp. 217-222

[14]. **Tran Quoc Toan**, Nguyen Thanh Tung, Nguyen Thu Huong, Pham Thi Thu Ha, Nguyen Van Khoi (2017), The kinetic of nutrition release of slow – released ure fertilizers in water, *Vietnam Journal of Chemistry*, Vol. 55, No 5e34, pp. 115-119.

[15]. **Tran Quoc Toan**, Bui Thanh Giang, Vu Thi Hien (2017), Preparation and charerization of slow – release fertilizer within polymer cover layer and additives originating nature, *Journal of Science and Technology Thai Nguyen*, Vol. 173, No 13, pp. 141-146

[16]. **Tran Quoc Toan**, Nguyen Thanh Tung, Nguyen Trung Duc, Pham Thi Thu Ha (2018), Nitrogen release rate of controlled- release urea fertilizers in soil media, *Journal of Analytical Sciences*, Vol. 23, No 3, pp. 41-47

[17]. **Tran Quoc Toan**, Tran Van Nam (2018), Effect of controlled release NPK fertilizer new generation on growth, development and yield of winter-melon no.1 In Song Cong - Thai Nguyen, *Journal of Analytical Sciences* , Vol. 23, No 3, pp. 181-188

[18]. **Tran Quoc Toan**, Dang Thi Hong Phuong (2018), Kinetic of nutrient release and biodegradation tendency In soil of slow-released urea fertilizers within polymer cover layer, Journal of Science and Technology Thai Nguyen, Vol. 185, No 05, pp. 41-46

[19]. **Tran Quoc Toan**, Vu Van Nhung, Ma Thi Bich Van, Ha Quang Anh (2019), Effects of controlled - release potash fertilizer on growth and yield of tomato , Journal of Analytical Sciences, Vol. 24, No 3, pp. 93-96.

[20]. Dang Thi Hong Phuong, Nguyen Thi Trang, Le Phuoc Anh, Dang Van Thanh, Nguyen Nhat Huy, **Tran Quoc Toan**, Phung Thi Oanh (2018), Preparation of carbon nanosheets from rice husk for adsorption of methylene blue in water, Vietnam Journal of Chemistry, Vol. 56, No 6e2, pp. 124-127

[21]. **Tran Quoc Toan**, Vu Van Nhung (2019), Synthesis and properties of Slow-release potash fertilizer, Journal of Analytical Sciences, Vol. 24, No 2, pp. 205-211.

[22]. Chu Manh Nhung, Nguyen Trung Kien, **Tran Quoc Toan** (2019), Analysis of trace impurities in high purity  $ZrCl_4$  by ICP-MS after separation of the  $Zr/HNO_3$  matrix by solvent extraction with D2EHPA/xylene and purity nano- $ZrO_2$ , Vietnam Journal of Chemistry, Vol. 57, No 2E1,2, pp. 170-174

[23]. Nguyen Manh Khai, Dang Thi Hong Phuong, **Tran Quoc Toan**, Chu Manh Nhung, Phan Minh Tan (2019), Effect of compost fertilizer producted from urban Sewage sludge on the growth, yield and quality of *Brassica campestris* l. In Pho Yen, Thai Nguyen, Journal of Analytical Sciences, Vol. 24, No 3, pp. 41-47.

[24]. Phan Minh Tan, Hoang Thi Ly, Tran Thi Hang, **Tran Quoc Toan**, Mai Thanh Nga (2019), Study on interaction between polyacrylamite and bentonite in agricultural land , Journal of Analytical Sciences, Vol. 24, No 3, pp. 97-100.

[25]. **Tran Quoc Toan**, Vu Van Nhung, Ma Thi Bich Van, Ha Quang Anh (2019), Effect of control - release potash fertilizer on growth and yield of tomato, Journal of Analytical Sciences, Vol. 24, No 3, pp. 93-97.

[26]. Pham Huong Quynh, Tran Van Lap, Nguyen Phuong Chi, **Tran Quoc Toan**, Nguyen Nhat Huy, Dang Van Thanh (2019), Study on the treatment ability of printing ink wastewater by electro-coagulation combined with ultrasonication, Vietnam Journal of Chemistry, Vol. 57, No 4E1,2, pp. 193-197

[27]. Nguyen Xuan Hoa, Nong Thu Huong, Trinh Thi Thu Hien, Nguyen Dac Trung, Nguyen Thanh Trung, Tran Thi Dong, **Tran Quoc Toan**, Do Tra Huong (2019), Study on bacterial ability of  $ZnO$  material prepared from sonochemical method, Journal of Analytical Sciences, Vol. 24, No 4, pp. 102-106.

[28]. **Tran Quoc Toan**, Nguyen Thi Kim Ngan, Pham Ngoc Toan, Nguyen Thi Minh Tam, Ha Xuan Linh, Nguyen Phuong Chi, Phung Thi Oanh (2019), Adsorption of Cr (VI) from aqueous solutions by using ZnO-Graphene composite, Journal of Analytical Sciences, Vol. 24, No 3, pp. 80-85.

[29]. **Tran Quoc Toan** (2019), Properties and Nutrition release rate in the soil of slow-release potassium fertilizer via polymer coating layer, Journal of Science and Technology Thai Nguyen, Vol. 208, No 15, pp. 215-220

[30]. **Tran Quoc Toan** (2020), Synthesis and properties of slow released ure fertilizer based on polyvinyl alcol and bentonite , Journal of Analytical Sciences, Vol. 25, No 2, pp. 71-76.

[31]. **Tran Quoc Toan**, Dang Thi Hong Phuong, Dang Van Thanh, Ha Xuan Linh (2020), Effects of ZnO nano fertilizer on growth, yield and quality of Maize (Zea mays L) in Phu Binh, Thai Nguyen, Journal of Analytical Sciences, Vol. 25, No 2, pp. 77-81.

#### ❖ Patent, utility solution

[1]. **Patent utility solution** No 2410: Nguyen Thanh Tung, Nguyen Van Khoi, **Tran Quoc Toan**, Trinh Duc Cong, Pham Thi Thu Ha, Nguyen Trung Duc, Dinh Gia Thanh, Nguyen Quang Huy, Tran Vu Thang, Pham Thu Trang, Hoang Thi Phuong, Do Cong Hoan, Nguyen Thi Thuc - The production of slow-release fertilizer and slow-release fertilizer is obtained from this process. Decision number 11356w/QĐ-SHTT, August 12, 2020

### IV. Research Grants/ Projects

#### ❖ University level

Project name: “*Design of several environmentally riendly slow - release fertilizers and application for agriculture production*”, Funding institution: Thai Nguyen University. ĐH.2015-TN04-08. Accepted in 2017 - good grade.

#### ❖ Base Level

Project name: “*Design of several environmentally riendly slow - release fertilizers and application for agriculture production*”, Funding institution: Thai Nguyen University of Education. CS.2018.01. Accepted in 2019 - excellent grade.

### V. Published Books

1. Informatic Application in Chemistry Teaching (2019), Thai Nguyen University Publishing House, Viet Nam.

2. History of Chemistry (2019), Thai Nguyen University Publishing House, Viet Nam.

### VI. Supervisor (Master)

| No | Name                   | Degree | Training organization  | Guidance year | Graduation year |
|----|------------------------|--------|------------------------|---------------|-----------------|
| 1  | <b>Do Hai Linh</b>     | Master | Thai Nguyen University | 2018          | 2019            |
| 2  | <b>Bui Thanh Giang</b> | Master | Thai Nguyen University | 2019          | 2020            |

## VII. Honors and Awards

1. 01 merit certificates from the president of Thai Nguyen province, 2019 (Decision No 642/QĐ –UBND, March 11, 2019, of the president of Thai Nguyen province)
2. 01 Certificate of Merit from the Director of Thai Nguyen University, 2018 ( Decision No 1860/QĐ-ĐHTN, August 30, 2018, of Merit from the Director of Thai Nguyen University)
3. 01 Awarded the Three Vietnam Science and Technology Innovation Awards 2019-VIFOTEC, 2019 ( Decision No 1364/QĐ -LHHVN December 30, 2019)
4. 01 First prize " XIV Young Creation Contest " - 2017, (Decision No 822-QĐ/TĐTN-TN, May 19, 2017, of the Executive Committee of the Youth Union, Thai Nguyen Province.
5. 01 Award encouragement contest "Search for talent for innovative startups in Thai Nguyen province in 2017 (Hanoi on November 3, 2017, of the Science and technology)
6. Certificate of Guiding Achievement: Second Prize of the 2017 "Scientific Research Student" - Ministry level. (Decision No 5395/QĐ-BGDĐT, December 13, 2017, of the Ministry of Education and Training)
7. Awarded the title "Typical young instructor“, 2019, (Decision No 199-QĐ/TĐTN-TTNT September 19, 2019, of the Executive Committee of the Youth Union, Thai Nguyen Province)

*Thai Nguyen, September 10, 2020*

***Tran Quoc Toan***