

SCIENTIFIC CURRICULUMVITAE



I. Personal Information

Name	DO TRA HUONG	
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Position	Deputy Head of Chemistry Faculty of Thai Nguyen University of Education.	
Degree	Doctor Year: 2007 Major: Theoretical Chemistry and Physical Chemistry	
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II. Qualifications

1989: B.Sc in Chemistry in Education, Thai Nguyen University of Education.
2006: M.Sc in Analytical Chemistry, Thai Nguyen University of Education.
2007: Ph.D in Theoretical Chemistry and Chemical Physics - Vietnam Academy of Science and Technology.

III. Scientific Publications

❖ Articles in international Journals

1. Uong Van Vy, **Do Tra Huong** and Le Xuan Que, (2006), "Surface Hydrogen redox properties of LaNi_5 based materials studied via ingot electrodes", *CD Proceedings of the 14th Asian-Pacific Corrosion Control Conference (14APCCC)*, October 21 to 24, 2006, Shanghai, China, code P-01-12.

2. **Do Tra Huong**, Le Xuan Que, Nguyen Anh Tien (2009). "Electrochemmical impedance and content effect of LaNi_5 based electrodes", *Journal "Конденсированные Среды и Межфазные Границы"*. TOM 11, N^o 3, C 185-189.

3. Le Xuan Que, **Do Tra Huong**, Uong Van Vy, Nguyen Anh Tien (2009). "New aspect of electrochemical impedance analyse concerning Co effect on LaNi_5 based ingot electrodes" *Journal "Конденсированные Среды и Межфазные Границы"*. TOM 11, N^o 4, C 265-271.

4. Le Xuan Que, **Do Tra Huong**, Nguyen Anh Tien, Uong Van Vy, (2010). "Determination of surface capacity Q_s and superficial active layer thickness d_s of LaNi_5 based ingot electrodes", *Journal "Вестни Воронежского Государственного Университета. Серия: химя. Биология. Фармация"*. Series: Chemistry. Biology. Pharmacy N^o2, C19-23.

5. Uong Van Vy, **Do Tra Huong**, Le Xuan Que, Nguyen Anh Tien (2012). "Nano dimension and cobant ratio effects of active layer on $\text{LaNi}_{4.3-x}\text{Co}_x\text{Mn}_{0.4}\text{Al}_{0.3}$ ingot electrodes" *Journal "Вестни Воронежского Государственного Университета. Серия: химя. Биология. Фармация"*. Series: Chemistry. Biology. Pharmacy, N^o1, January - June. C 7-11.

6. Dang Van Thanh, Phung Thi Oanh, **Do Tra Huong**, Phuoc Huu Le, (2017), "Ultrasonic-assisted cathodic electrochemical discharge for graphene synthesis", *Journal Ultrasonics Sonochemistry*, 34, 978- 983. DOI: 10.1016/j.ultsonch.2016.07.025 (SCI).

7. Quan Vo An, Nam Nguyen Hoai, Nguyen Van Chien, **Do Tra Huong**, Que Le Xuan, (2017) "Study on Rhodomyrtus Tomentosa waster extract and its fraction as a green corrosion inhibitor on mild steel subtrate in H_2SO_4 0.5M", *Proceding The 6th Asian Symposium on Advanced Material*, September 27-30th, Ha Noi, Viet Nam pp 567-571. Publishing house for Sicience and Technology.

8. Keomany Inthavong, Phùng Thi Oanh, Nguyễn Thành Trung, Nguyễn Thanh

Hải, Đặng Thi Hồng Phương, **Đỗ Trà Hương**, Trần Thị Đông, Nguyễn Văn Chiến, Nguyễn Đắc Trung, Đặng Văn Thành (2017) “Facile one - step synthesis of zinc oxide nanosheets by ultrasonic- assisted precipitation method”. *The 8 International on Nanotechnology and Application*. pp 411-413.

9. Nguyen Anh Tien, Chau Hong Diem, Nguyen Thi Truc Linh, V. O. Mittova , **Do Tra Hung**, I. Ya. Mittova, (2018), “Structural and magnetic properties of $\text{YFe}_{1-x}\text{Co}_x\text{O}_3$ ($0.1 \leq x \leq 0.5$) perovskite nanomaterials synthesized by co-precipitation method”, *Nanosystems: Physics, Chemistry, Mathematics*, Vol 9 (3), pp 424-429. **ESCI**.

10. Khanh Le Quoc, Duong Nguyen Van, Chi Le Linh, **Huong Do Tra**, Que Le Xuan (2018), “Lipid degradation of corn preserved in oxygen depleted minienvironment”, *International Journal of Development Research*, Vol. 08, Issue, 12, pp 24670-24673. **SCOPUS**.

11. Khanh Le Quoc, Duong Nguyen Van, Chi Le Linh, **Huong Do Tra**, Que Le Xuan (2018), “Germination of corn seed persevered in depleted minienvironment”, *International Journal of Development Research*, Vol. 08, Issue, 12, pp 24683-24687. **SCOPUS**.

12. Tien A. Nguyen, M. V. Berezhnay, Thanh L. Pham, V. O. Mittova , Mai Q. Vo, Linh T. Tr. Nguyen, **Huong Tr. Do** , I. Ya. Mittova, and E. L. Viryutina (2019) “Synthesis and Magnetic Characteristics of Neodymium Ferrite Powders with Perovskite Structures”, *Russian journal of applied chemistry*, vol. 92, 3, pp 498-504. **SCOPUS**.

13. A.T. Nguyen, Vinh N.T. Pham, T. Tr L. Nguyen, V.O. Mittova, Q.M. Vo, M.V. Berezhnaya, I. Ya Mittova, **Tr H. Do**, H.D. Chau (2019) “Crystal structure and magnetic properties of perovskite $\text{YFe}_{1-x}\text{Mn}_x\text{O}_3$ nanopowders synthesized BY CO-PRECIIPITATION method”, *Solid State Sciences*, **SCI**, <https://doi.org/10.1016/j.solidstatesciences.2019.06.011>.

14. Ha Xuan Linh, Ngo Thi Thu, Tran Quoc Toan, **Do Tra Hung**, 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**.

15. A. T. Nguyen, V. Y. Nguyen, I. Ya. Mittova, V. O. Mittova, E. L. Viryutina, C. Ch. T. Hoang, Tr. L. T. Nguyen, X. V. Bui, **T. H. Do**. (2020) “Synthesis and magnetic properties of PrFeO_3 nanopowders by the co-precipitation method using ethanol’. *Nanosystems: Physics, Chemistry, Mathematics*, 11 (4). 468-473, <https://doi.org/10.17586/2220-8054-2020-11-4-468-473> **ESCI**.

16. **Do Tra Huong**, Nguyen Van Tu, Ha Xuan Linh, Nguyen Thi Hien Lan, Duong Thi Thoa, Duy Chinh Nguyen, and Hong-Tham T. Nguyen (2020) "Enhanced Degradation of Phenolic Compounds in Coal Gasification Wastewater by Methods of Micro-Electrolysis Fe-C and Anaerobic- Anoxic - Oxic Moving Bed Biofilm Reactor (A2O-MBBR)". *Processes*, 8, 1258; doi:10.3390/pr8101258. **SCIE**.

17. **Do Tra Huong**, Nguyen Van Tu, Nguyen Quoc Dung, Chu Manh Nhuong, Ngo Thi Cam Quyen, Lam Van Tan (2020) "Equilibrium, kinetic and thermodynamic studies for asorption of phosphate from aqueous solution using nanoparaticles ZnO". *Processes*. **SCIE**. Accepted.

18. **Tra Huong Do**, Van Tu Nguyen, Nguyen Quoc Dung, Manh Nhuong Chu, Doan Van Kiet, Tran Thi Kim Ngan (2020) "Study on methylene blue adsorption of activated carbon made from *moringa oleifera* leaf", *Material Today Proceedings*. **SCOPUS**. Accepted.

❖ **Articles in national Journals**

1. Dao Van Chung, Le Huu Thieng, **Do Tra Huong**. (1996), "Study on complexing of Honmi and Ecbi with L-Glutamic acid by pH measurement method". *Journal of Science and Technology*, Thai Nguyen University, pp. 59-61.

2. Dao Van Chung, Le Huu Thieng, **Do Tra Huong**. (1997), "Synthesis and study of Glutamat complexes of Honmi and Ecbi". *Journal of Science and Technology*, Thai Nguyen University, pp. 32-36.

3. Le Xuan Que, Pham Dinh Dao, **Do Tra Huong**, Nguyen Huu Tinh, (2000), "Determination of the properties of polyanilins manufactured by electrochemical method", *Conference on the Department of Physicochemical and Biological Analysis Study in Vietnam for the first time*, Collection of scientific works, Tr. 90- 94.

4. **Do Tra Huong** (2001), "Ni-MH batteries and electrode material durability", *Journal of Chemistry and Chemical Technology*. Number 9, pp. 34- 38.

5. Vu Hung Sinh, Le Xuan Que, **Do Tra Huong**, Pham Huy Quynh, Dang Ung Yun, (2001), "The impact of oxidation on the electronic structure of PANi", *Journal of Chemistry*, T. 39, number 4, Tr. 32-36.

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7. Le Xuan Que, **Do Tra Huong**, Uong Van Vy, Pham Thi Phuong, Luu Tuan Tai, (2003), "Investigation of the impact mechanism of negative electrode additive in Ni-MH batteries) "National Conference of Physical Chemistry and Theoretical Chemistry, pp. 133-137.

8. Bui Tien Trinh, **Do Tra Huong**, Le Xuan Que, (2004), "Current corrosion of LaNi₅ material as a negative electrode for Ni-MH batteries under the impact of the charging process" , Viet Nam Journal of Chemistry Vol.42 (2), p. 167-171.
9. Bui Tien Trinh, **Do Tra Huong**, Pham Thi Phuong, Le Xuan Que, (2005), "The impact of the 5M KOH electrolyte environment on LaNi₅ electrode material in Ni-MH batteries" , Journal of Science and Technology, Vol. 43, No. 2B, p. 8-13.
10. Le Xuan Que, **Do Tra Huong**, Uong Van Vy (2006) "Evaluation of the impact of the PANi additive on the ability to actively activate LaNi₅ radical hydrogen-drain electrodes". Viet Nam Journal of Chemistry 5 No. 44, 2006, pp. 579-584.
11. **Do Tra Huong**, Le Xuan Que, Nguyen Thi Hien Lan, Pham Ha Thanh. (2006), "Assessment of the impact of PANi additive on LaNi₅-based hydrogen-evacuation positive electrophoresis reaction", Journal of Science and Technology, Thai Nguyen University, No. 2 (38), page 53-59.
12. Luu Tuan Tai, Tran Bao Trung, Vu Xuan Thang, Uong Van Vy, **Do Tra Huong**, Le Xuan Que, (2006). "The effect of the particle size on the charging process of the LaNi₅ original negative electrode", Proceedings of the 2nd "Electrochemical and Applied" National Conference, Hanoi, pp. 175-179.
13. Uong Van Vy, **Do Tra Huong**, Le Xuan Que. (2007). "Study on electrochemical corrosion of LaNi₅ in KOH solution at potential E₀ before charging", Proceedings of the 2nd National Conference "Corrosion and protection of metals with economic integration". Da Nang April. Pages 94-98.
14. **Do Tra Huong**, Le Xuan Que. (2007). "Initially examine the relationship $B = J_0 R_p$ and the process of accumulating hydrogen drainage on the original LaNi₅ negative electrode". Journal of Science and Technology, Thai Nguyen University, No. 4, (2), pp. 43-47.
15. Le Xuan Que, **Do Tra Huong**, Uong Van Vy, Bui Minh Quy. (2008). "Development of Ni-MH - a solution contributing to the development of renewable energy and saving electricity" The first International Conference "Natural science and technology publishing house," Ha Noi - Ha Long 8-9 / 05. Pages 435- 440.
16. **Do Tra Huong**, Le Xuan Que. (2008). "Investigating the mechanism of impact of PANi additive on the electrochemical process on LaNi₅-based hydrogen-derived electrodes positively". Journal of Analysis, Chemistry, Physics and Biology, Vol. 13, Issue 2. Pages 76-80.
17. Uong Van Vy, Bui Minh Quy, **Do Tra Huong**, Tran Thi Huong, Le Xuan Que. (2009). "Surveying the particle size distribution of LaNi₅ base material made by planetary mill", Journal of Science and Technology, Thai Nguyen University, Vol. 53,

No. 5, pp. 76-80.

18. Bui Minh Quy, Uong Van Vy, **Do Tra Huong**, To Thi Hoa, Le Xuan Que. (2009). "Research on fabrication of LaNi₅ base materials by arc melting method", Journal of Science and Technology, Thai Nguyen University Vol 51, No. 3, Tr72-76.

19. **Do Tra Huong**, Uong Van Vy, Le Xuan Que. (2009). "Study on the effect of frequency on kinetic parameters of materials LaNi_{4.3-x}Co_xMn_{0.4}Al_{0.3} by the electrochemical resistance method", Viet Nam Journal of Chemistry, Vol. 47, No. 5A, pp. 49-54.

20. Uong Van Vy, **Do Tra Huong**, Le Xuan Que, Nguyen Thi Nguyet, Cao Thi Hai. (2009) "Research on the electrochemical properties of the nanometer-sized LaNi₅ base material as a negative electrode in Ni-MH batteries". Viet Nam Journal of Chemistry. Episode 47, No. 5A, pp. 32-36.

21. Le Xuan Que, **Do Tra Huong** (2009). "Cobalt catalytic effect on kinetics of LaNi_{4.3-x}Co_xMn_{0.4}Al_{0.3} electrodes using CV". Special issue for "2nd Regional Conference on Chemical Engineering", Journal of Science and Technology, Vol. 47-Issue 5A, pp. 233-238.

22. Uong Van Vy, Nguyen Thi Hong, Le Xuan Que, Nguyen Van Tich, **Do Tra Huong**, "Study of the nanoscale effect on the electrochemical activation of LaNi₅ original cathode electrodes", Collection of Vatter Conference reports The 6th National Solids Physics and Materials Science, Da Nang 8 -10/11/2009, Nature and Technology Publishing House, page. 816 – 819.

23. Uong Van Vy, Le Xuan Que, To Thi Hoa, Tran Thi Huong, Nguyen Van Tich, **Do Tra Huong**, "Fabrication of LaNi₅-based nanomaterials by arc melting and mechanical grinding", Collection of newspapers Report on the 6th National Conference of Solid Physics and Materials Science, Da Nang 8 - 10 November 2009, Nature and Technology Publishing House, pg. 1186 - 1189.

24. **Do Tra Huong** (2010). "Study on the adsorption capacity of Cu²⁺, Ni²⁺ ions of Viet Yen-Bac Giang peat". Journal of Analysis, Chemistry, Physics and Biology. Volume 15, number 4, pp 150-154.

25. Uong Van Vy, **Do Tra Huong**, Nguyen Thi Nguyet, Cao Thi Hai, Le Xuan Que. (2010). "Study on the electrochemical properties of the nano-sized mechanical grinding material LaNi_{3.8}Co_{0.5}Mn_{0.4}Al_{0.3}". Journal of Science and Technology, volume 48, number 3A, page 52-56.

26. **Do Tra Huong**, Chu Dinh Kinh, Uong Van Vy, Le Xuan Que. (2010). "Study on the electrochemical properties of the nanometer-sized LaNi_{3.55}Co_{0.75}Mn_{0.4}Al_{0.3} material". Viet Nam Journal of Chemistry, volume 48, issue 4A, pp. 196-200.

27. **Do Tra Huong**, Uong Van Vy. (2010). "Surveying the particle size distribution of materials $\text{LaNi}_{3,9}\text{Co}_{0,4}\text{Mn}_{0,4}\text{Al}_{0,3}$ made by high-energy grinding method", Journal of Science and Technology, Thai Nguyen University, Vol. 73, No. 11, Page 66-70.

28. **Do Tra Huong**, Uong Van Vy. (2011). "Research on the electrochemical properties of materials $\text{LaNi}_{3,8}\text{Co}_{0,5}\text{Mn}_{0,4}\text{Al}_{0,3}$ by CV method", Viet Nam Journal of Chemistry, Vol. 49, No. 3A, pp. 139-143.

29. **Do Tra Huong**, Nguyen Thi Thuy Nga. (2011). "Fabrication and research on Cu^{2+} adsorption capacity of $\beta\text{-MnO}_2$ nano oxide materials", Viet Nam Journal of Chemistry, Vol. 49, No. 3A, pp. 1-5.

30. Uong Van Vy, **Do Tra Huong**, Lai Thi Ngoc Mai, Le Xuan Que. (2011). "Research to determine diffusion coefficient of hydrogen in LaNi_5 base alloy by electrostatic potential discharge method". Viet Nam Journal of Chemistry, volume 49, number 2 (ABC), pp. 868-872.

31. **Do Tra Huong**, Pham Thi Ha. (2011). "Fabrication and research on Fe^{3+} ion adsorption capacity of sand-coated manganese oxide nanomaterials". Journal of Science and Technology of Thai Nguyen University, Volume 86, No. 10, pp 95-99.

32. **Do Tra Huong**, Dao Xuan Nam. (2011). "Fabrication and research on the adsorption capacity of Cu^{2+} , Ni^{2+} , Fe^{3+} ions of nanometer-sized manganese oxide materials" Viet Nam Journal of Chemistry, T49 No. 5AB, pp. 80-85.

33. **Do Tra Huong**, Pham Thi Thanh Thuy. (2011) "Research on Cr (III) adsorption capacity of peat Dong Trieu - Quang Ninh", Viet Nam Journal of Chemistry, T49, No. 5AB, pp. 74-79.

34. **Do Tra Huong**, Dao Viet Hung, Bui Duc Nguyen. (2012). "Fabrication and research on the adsorption capacity of Fe^{3+} , Ni^{2+} , Cr VI) ions of the sand-coated MnO_2 nano oxide material". Viet Nam Journal of Chemistry, T50No. 5B, pp. 221-226.

35. **Do Tra Huong**, Vu Thi Len, Nong Thi Ngoc Hoa. (2012). "Fabrication and research on Ni (II), Cr (VI) adsorption capacity of Fe_2O_3 nano oxide materials". Viet Nam Journal of Chemistry T50, No. 5B, pp. 215-220,

36. Bui Duc Nguyen, **Do Tra Huong** (2012). "Effect of Si doping on the structural characteristics and Rhodmine B decomposition photocatalytic activity of TiO_2 nanoparticles". Viet Nam Journal of Chemistry vol 50, No. 5B, pp. 97-100.

37. **Do Tra Huong** (2013). "Research on Mn (II) adsorption capacity, evaluate the ability to catalyze methylene blue degradation of Fe_2O_3 nanoscale materials". Viet Nam Journal of Chemistry, vol 51, No. 3AB, pp. 265-269

38. **Do Tra Huong**, Bui Duc Nguyen (2013). "Research on methylene blue adsorption capacity of the MWCNTs/ Fe_2O_3 nanocomposite adsorbent". Viet Nam

Journal of Chemistry, vol 51, No. 3AB, pp. 137-141

39. **Do Tra Huong** (2013) "Research on Cr (VI), Ni (II) adsorption capacity of Fe₂O₃ nano oxide coated sand materials" Viet Nam Journal of Chemistry, Vol 51, No. 3AB, 132-136.

40. Bui Duc Nguyen, Nguyen Hoang Hau, **Do Tra Huong** (2013). "Effects of CuO co-catalyst on the photocatalytic activity of methyl orange degradation of TiO₂ nanoparticles". Viet Nam Journal of Chemistry, vol. 51, number 3AB, pp. 549-553.

41. **Do Tra Huong**, Dang Thi Thanh Xuan, Dao Viet Hung. (2013) "Research on Cr (VI), Ni (II), Mn (II) adsorption capacity of Fe₂O₃ nano oxide coated sand materials" Journal of Catalytic and Adsorption, volume 2, No. 3, page 76 -81.

42. **Do Tra Huong**, Nguyen Duy Ket (2013). "Study on the ability to separate Fe (III), Ni (II) ions of sand materials coated with nano-oxide MnO₂" Viet Nam Journal of Chemistry, Vol. 51, No. (6ABC), pp. 642-646.

43. **Do Tra Huong**, Duong Thi Tu Anh (2014). "Fabrication of Fe₃O₄ nanoparticles magnetic oxide adsorption materials on tea grounds". Journal of Analysis, Chemistry, Physics and Biology, volume 19, No. 3, pages 79-85.

44. **Do Tra Huong**, Tran Thuy Nga (2014). "Study on the adsorption of methylene green color by tea pulp material". Journal of Analysis, Chemistry, Physics and Biology, volume 19, No. 4, pp. 27-32.

45. **Do Tra Huong**, Le Xuan Que (2014). "Research on Cr (VI), Ni (II) adsorption by nano magnetic oxide adsorbent Fe₃O₄ dispersed on tea grounds" Viet Nam Journal of Chemistry, vol. 52, No. 5A, p. 41 -46.

46. **Do Tra Huong**, Le Xuan Que, Dang Van Thanh (2014). "Research on adsorption of active red DH 120 by tea pulp material" Viet Nam Journal of Chemistry, Vol. 52, No. (6ABC), pp. 46-52.

47. Bui Duc Nguyen, **Do Tra Huong** (2014). "Effects of Cu, Ni co-doping properties on the structure and photocatalytic activity of rhodamine B decomposition of TiO₂ nanoparticles" Viet Nam Journal of Chemistry, Vol. 52, No. 5A, pp. 36-41.

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49. Dang Van Thanh, **Do Tra Huong** (2015). "Fabrication of activated carbon from tea grounds and application for adsorption of bentazon herbicide in water environment". Journal of Analysis, Chemistry, Physics and Biology, volume 20, No. 3, pp. 193-199.

50. **Do Tra Huong**, Dang Van Thanh (2015), "Adsorption of Cr (VI) dynamically

on the column in aqueous environment using modified tea pulp material KOH". Journal of Analysis, Chemistry, Physics and Biology, volume 20, No. 4, pp. 74-82.

51. Nguyen Thi Huong Quynh, Phung Thi Oanh, **Do Tra Huong**, Bui Thi Trang, Huynh Thu Nga, Phuoc Huu Le, Dang Van Thanh, (2015). "Plasma - assisted electrochemical exfoliation of graphite for rapid production of graphene sheets". Collection of reports on the 4th National Conference on Engineering and Applied Physics. Danang. IC14 code.

52. **Do Tra Huong**, Huynh Thu Nga, Nguyen Truong Giang, Nguyen Thi Huong Quynh, Bui Thi Trang, Nguyen Thi Kim Ngan, Nguyen Nhat Huy, Dang Van Thanh, (2015). "Adsorption of methylene blue from aqueous solution using KOH - modified waste tea leaves". Journal of Science and Technology, volume 53, No. 4C, pp. 228-237.

53. **Do Tra Huong**, Dang Van Thanh, Mai Quang Khue, Nguyen Thi Kim Ngan, (2016). "Adsorption of Cr (VI) in water with KOH modified tea residue adsorbent". Viet Nam Journal of Chemistry, Vol. 54, No. 1, pp. 64-69.

54. Dang Van Thanh, **Do Tra Huong**, Ha Ngoc Nghia, Nguyen Ngoc Minh, (2016). "Fabrication of modified tea pulp material and application for adsorption of herbicide 2,4-dichlorophenoxyacetic acid in water environment". Viet Nam Journal of Chemistry, vol. 54, number 3, pp. 291-295.

55. Nguyen Thi Hanh, **Do Tra Huong**, Nguyen Nhat Huy, Nguyen Thi Anh Tuyet, Dang Van Thanh, (2016), "Preparation of activated carbon from tea waste and application for removal of methylene blue", Journal of Analysis, Chemistry, Physics and Biology, vol. 21, number 4, pp. 166-174.

56. Pham Thi Tuoi, Nguyen Ngoc Anh, Nguyen Cao Khang, Ngo Ngoc Hoa, **Do Tra Huong**, Dang Van Thanh, Phan Ngoc Hong, (2016), "Research and fabrication of polycrystalline TiO_2 materials and use of methylene blue color treatment in water environment", Journal of Analysis, Chemistry, Physics and Biology, volume 21, No. 4, pp. 123-130.

57. Phung Thi Oanh, Dang Van Thanh, **Do Tra Huong** (2016), "Fabrication of graphene materials by plasma electrolytic dissection and As (III) adsorption probe in water environment", Journal of Analysis, Chemistry, Physics and Biology, vol. 21, No. 3, pp. 141-148.

58. **Do Tra Huong**, Dang Van Thanh, Nguyen Thanh Hai, Nguyen Quoc Dung, (2016), "Adsorption of As (III) in water environment by denatured tea residue KOH", Journal of Analysis, Chemistry, Physics and Biology, vol. 21, no. 3, pp. 131-140.

59. **Do Tra Huong**, Nguyen Thi Dung, Dang Van Thanh, (2017), "Research on ammonium adsorption using KOH activated graphite materials", Journal of Analysis,

Chemistry, Physics and Biology, vol. 22, No. 2 , pp 94-98.

60. Nguyen Quoc Dung, Nguyen Van Tien, Nguyen Hong Nhung, **Do Tra Huong**, (2017), "Cyclic potential scanning method to determine glucose on CuO /ITO electrode", Journal of Analysis, Chemistry, Physics and Biology, volume 22, number 3, pp. 98-105.

61. Phung Thi Oanh, **Do Tra Huong**, Lome Phengkhammy, Ha Xuan Linh, (2017), "Study on green methylene adsorption by activated red mud-graphene material in acid environment", Journal of Analysis, Chemistry, Physics and Biology, vol. 22, number 2, pp. 99-104.

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63. **Do Tra Huong**, Nguyen Quoc Dung, Nguyen Thi Kim Ngan, Nguyen Thi Anh Tuyet, Ha Xuan Linh (2017), " Adsorption Cd (II) in water by KOH modified tea residue adsorption material". Viet Nam Journal of Chemistry, vol. 55, number 5E12, pp 54-58.

64. **Do Tra Huong**, Nguyen Ngoc Mai, Ha Xuan Linh (2017), "Adsorption red DH120 by using graphene and HNO₃ activated red mud", Viet Nam Journal of Chemistry, vol. 55, No. 5E12, pp. 284-288 .

65. Ha Xuan Son, **Do Tra Huong**, Tran Thi Nhu, Dang Van Thanh (2017), "Adsorption of Mn (II) ions using KOH activated graphite", Viet Nam Journal of Chemistry, vol. 55, No 5E12, p 44-48.

66. Le Quoc Khanh, Do Thi Hang, **Do Tra Huong**, Nguyen Van Duong, Le Xuan Que (2017). "A study on the kinetics of oxygen reduction focoar", Journal of Science and Technology, volume 55, No. 5B, pp. 111-118.

67. Luu Viet Hung, Nguyen Thanh Hai, Nguyen Thanh Trung, **Do Tra Huong**, Nguyen Phuong Chi, Nghiem Thi Huong, Dang Van Thanh (2018), "Adsorption of Mn (II) in water using nano bentonite fabrication. by the activation method with the help of ultrasonic vibrations ". Viet Nam Journal of Chemistry, vol. 56, issue 3e, pp. 27-32.

68. Ha Xuan Son, Nguyen Thi Kim Ngan, Le Duc Manh, Dang Van Thanh, **Do Tra Huong**, Ha Xuan Linh (2018) "Study on the use of vetiver, fern and betel nut grass to treat metal pollution Pb in soil surrounding lead zinc mine in Hich village, Dong Hy district, Thai Nguyen province". Journal of Science and Technology, Thai Nguyen University. Episode 185, number 9, page 111 - 116.

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70. Do Hai Linh, Le Thi Thu Thuy, Ha Xuan Linh, Dang Thi Hong Phuong, **Do Tra Huong**, Dang Van Thanh (2018), "Fabrication of ZnO nanomaterials by electrochemical method using phosphate adsorption in water environment" Viet Nam Journal of Chemistry, Vol. 56 No. 6E2, pp. 22-29.

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73. **Do Tra Huong**, Nguyen Van Tu, Nguyen Anh Tien, Hoang Minh Hao, Nguyen Phuong Chi (2019). "Decomposition of methylene blue in water environment of Fe / C internal electrolyte material", Viet Nam Journal of Chemistry, Vol 57, No. 2E12, pp. 63-68.

74. Nguyen Van Tu, Tran Thi Huong Nu, **Do Tra Huong**, Bui Duc Cuong, (2019) "Synthesis and electrochemical properties of ZnO nanoparticles by hydrothermal method and fabrication application as negative electrodes in batteries silver - zinc ", Viet Nam Chemistry Journal, Vol. 57, No. 2E12, pp. 100 - 104.

75. **Do Tra Huong**, Nguyen Phuong Chi, Nguyen Thanh Trung, Nguyen Duc Thanh, Nguyen Quoc Dung, Vilaykone Phakaxoum, Nguyen Anh Tien (2019) "Methylene blue adsorption in water using nano composite material Fe_3O_4 / bentonite fabricated by the method of ultrasonic activation ", Viet Nam Journal of Chemistry, 57 (4e1,2), pp 181-187.

76. Nguyen Xuan Hoa, Nong Thu Huong, Trinh Thi Thu Hien, Nguyen Duc Trung, Nguyen Thanh Trung, Tran Thi Dong, Tran Quoc Toan, **Do Tra Huong** (2019) "Study on bactericidal ability of processed ZnO nanomaterials created by ultrasonic chemistry ". Journal of Analysis, Chemistry, Physics and Biology, Volume 24, Issue 4, pp. 102-106.

77 Nguyen Phuong Chi, **Do Tra Huong**, Nguyen Thanh Trung, Nguyen Duc Thanh, Nguyen Thi Kim Ngan, Nguyen Anh Tien (2019) "Dynamic Mn (II) adsorption on column in water environment using bentonite nanomaterials. support of ultrasound ". Journal of Catalytic Adsorption, Volume 8, No. 2, pp. 23-28.

78. Ha Xuan Linh, Pham Huong Quynh, Duong Thi Ha, Nguyen Thi Anh Tuyet, Keomany Inthavong, **Do Tra Huong** (2019). "Research on Cr (VI) adsorption capacity

in water using ZnO nanomaterials fabricated by ultrasonic chemical method", Journal of Agriculture and Rural Development, November issue, pages 194-199.

79. **Do Tra Huong**, Nguyen Van Tu, Dinh Thi Minh Hang, Nguyen Anh Tien (2020) "Decomposition of phenol in water by internal electrolysis on Fe-C material". Journal of Analysis, Chemistry, Physics and Biology. Vol 25, number 1, pp. 143- 148.

80. **Do Tra Huong**, Nguyen Van Tu, Le Quoc Khanh, Doan Van Kiet (2020) "Research on phosphate treatment in water using ZnO nanomaterials", Journal of Analysis, Chemistry, Physics and Biology. Vol 25, number 1, page 168-183.

81. **Do Tra Huong**, Dao Mai Giang, Nguyen Van Tu, Nguyen Anh Tien (2020) "Decomposition of phenol in water by internal electrolysis on the material Fe-Cu ". Journal of Analysis, Chemistry, Physics and Biology. Vol 25, No. 2, pp. 164- 170

82. **Do Tra Huong**, Duong Thi Tu Anh, Ta Thi Quynh, Nghiem Thi Huong (2020) "Fabrication of activated carbon from moringa bark and application of green methylene adsorption in water environment". Journal of Analysis, Chemistry, Physics and Biology. Vol 25, number 2, pp. 171- 176.

83. **Do Tra Huong**, Tran Xuan Nam, Ha Xuan Linh, Le Thi Phuong, (2020), "Decomposition of ĐH120 red products in water by internal electrolysis on Fe-C material", Journal of Agriculture and Agricultural Development village. Accepted.

IV. Research Grants/ Projects

❖ Ministry level

1. Determine the working strength of LaNi_5 base material in a Ni-MH battery. Ministry level . Code 2005-03-73. 2007. Achieved good grade.

2. Fabrication and electrochemical investigation of nano-sized LaNi_5 base materials as negative electrodes in Ni-MH batteries. Ministry level. Code B2009-TN04-07. 2011. Achieved excellent grades.

3. Research on industrial wastewater treatment, gasification of persistent coal in Thai Nguyen province by internal electrolysis combined with biofilm. Ministry level. Code B2019-TNA-10. On-going.

❖ University level

1. Synthesize solid complexes of Ho^{3+} and Er^{3+} with L- Glutamic acid, determine the composition and study the binding properties in those solid complexes. 1998. Achieved good grade.

2. Studying the ability to adsorb some potential metal ions of nano oxide materials such as MnO_2 , Fe_2O_3 and exploration and treatment of polluted water sources. Code 2012. TN04-14. Achieved good grade.

V. Published Books

1. Do Tra Huong, Ho Van Hai (2012). Electrochemical - Education Publishing House.
2. Do Tra Huong, Ho Van Hai (2012). Colloid chemistry - Education Publishing House,

VI. Supervisor

No	Name	Degree	Training organization	Guidance year	Graduation year
1	Vo An Quan	Doctor	Industrial Chemistry Institute - Hanoi	2014	2019
2	Le Quoc Khanh	Doctor	Industrial Chemistry Institute - Hanoi	2015	2020
3	Nguyen Thi Thuy Nga	Master	Thai Nguyen University	2010	2011
4	Pham Thi Ha	Master	Thai Nguyen University	2011	2012
5	Nong Thi Ngoc Hoa	Master	Thai Nguyen University	2012	2013
6	Dang Thi Thanh Xuan	Master	Thai Nguyen University	2012	2013
7	Dinh Trieu Toan	Master	Thai Nguyen University	2013	2014
8	Le Minh Thu	Master	Thai Nguyen University	2013	2014
9	Mai Quang Khue	Master	Thai Nguyen University	2014	2015
10	Ha Ngoc Nghia	Master	Thai Nguyen University	2014	2015
11	Bui Thi Trang	Master	Thai Nguyen University	2015	2016
12	Nguyen Thi Huong Quynh	Master	Thai Nguyen University	2015	2016
13	Huynh Thu Nga	Master	Thai Nguyen University	2015	2016
14	Nguyen Thi Hanh	Master	Thai Nguyen University	2016	2017
15	Nguyen Thi Dung	Master	Thai Nguyen University	2016	2017
16	Lome Phengkhammy	Master	Thai Nguyen University	2016	2017
17	Luu Viet Hung	Master	Thai Nguyen University	2017	2018
18	Keomany	Master	Thai Nguyen University	2017	2018

	Inthavong				
19	Le Duc Manh	Master	Thai Nguyen University	2017	2018
20	Do Hai Linh	Master	Thai Nguyen University	2018	2019
21	Tran Thi Huong Nu	Master	Thai Nguyen University	2018	2019
22	Dinh Thi Minh Hang	Master	Thai Nguyen University	2019	2020
23	Duong Thi Thoa	Master	Thai Nguyen University	2019	2020

VII. Honors and Awards

- 01 merit certificate from the Prime Minister, 2017 (Decision No. 1293./ QD TTg dated 10/8/2015 of the Prime Minister of Viet Nam).
- 01 awarded the ministerial-level emulation soldier, 2016 (Decision No. 5431/QD-BGDĐT dated November 15, 2013. of the Minister of Education and Training).
- 02 merit certificates from the Minister of Education and Training Certificate of Merit 2011, 2018 (Decision No. 2671/QD-BGDĐT dated July 01, 2011, Decision No. 4832/QD-BGDĐT dated November 9, 2018, of the Minister of Education and Training).
- Guide 02 students to win the third prize of Vietnamese young scientific talent in 2014.
- Guide 02 students to win the Second Vietnam National prize in 2016.
- Guide 02 students to win the Third Vietnam National prize in 2018.
- Guiding 01 student to win the Second Vietnam National prize in 2019.

Thai Nguyen, 15 October 2020

Do Tra Huong