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Department of Physics
Faculty of Electricity and Electronics
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EDUCATION

Bergen University, Bergen, Norway
Ph.D. in Physics, 2009-2012

Kyungpook National University, South Korea
Master of Science in Physics, 2006-2008

Hanoi University of Science and Technology, Vietnam
Bachelor in Information Technology, 1999-2003

Vinh University of Pedagogics, Vietnam
Bachelor of Science in Physics, 1993-1997

RESEARCH INTERESTS

- Nanophysics
- Molecular Dynamics Simulations

RESEARCH EXPERIENCE and PROJECTS

- **SSC – Ramore project** (Molecular dynamics simulations to study the interactions between atom or molecule and surface), at the Department of Physics and Technology, University of Bergen, Norway, 2009-2012
- **Brain Korea 21 (BK21)** (Synthesis, characterization, and application of nanomaterials) at the Nano Applied Physics Laboratory, Kyungpook National University, South Korea, 2006-2008
- **TR2004-33-06** (Designing, manufacturing data reception, storage and processing equipment, and displaying the experiment outcome by Laser diffraction, at the Department of Physics, Nha Trang University, Vietnam, 2004-2005)

TEACHING RESPONSIBILITY

Undergraduate (Đại học)

- Fundamental of Physics A
- Fundamental of Physics B
- Experimental Physics

PUBLICATIONS, PROCEEDINGS, and PRESENTATIONS

Journals

1. Jinsik Ju, Hayeon Won, JinJoo Jung, Junyeob Yeo, **Phan Van Cuong***, and Do-Hyung Kim* (*Corresponding author), Enhanced X-ray excited luminescence of LaF₃:Ce/CdSeS nanocomposites by resonance energy transfer for radiation detection, **Journal of ELECTRONIC MATERIALS**, Vol. 46, No. 8 (2017), pp. 5319-5323. (SCI)
2. **Phan Van Cuong**, Bjørn Kvamme, Tatiana Kuznetsova, and Bjørnar Jensen, Molecular dynamics study of calcite, hydrate and temperature effect on CO₂ transport and adsorption stability in geological formations, **Molecular Physics**, Vol. 110 (2012), pp.1097-1106. (SCI)
3. **Phan Van Cuong**, Tatiana Kuznetsova, Bjørn Kvamme, and Bjørnar Jensen, Adsorption energy and stability of H₂O and CO₂ on calcite effect by short-range force field parameters and temperature, **Recent Researches in Applied Mathematics and Economics**, (2012), pp.66-72. (ISBN 978-1-61804-076-3)
4. **Phan Van Cuong**, Bjørn Kvamme, Tatiana Kuznetsova, Adsorption of water and CO₂ on calcite and clathrate hydrate: the effect of short-range forces and temperature, **INTERNATIONAL JOURNAL of ENERGY and ENVIRONMENT**, Vol. 6, Issue.3(2012), pp. 301-309. (ISSN 2076-2895)
5. **Phan Van Cuong**, Joonghoe Dho, Hyo Yeol Park, and Do-Hyung Kim, A sonochemical assisted synthesis and annealing temperature effect of La_{0.7}Sr_{0.3}MnO₃ nanoparticles, **Applied Physics A-Materials Science & Processing**, Vol. 95 (2009), pp.567-571. (SCI)
6. **Phan Van Cuong** and Do-Hyung Kim, Effect of strontium doping level on electrical transport and magnetic properties of La_{1-x}Sr_xMnO₃ perovskite nanoparticles, **Journal of Physics: Conference Series**, Vol. 187 (2009), pp.012090. (ISSN 1742-6596)

Proceedings and Presentations

1. Phan Van Cuong, LaF₃:Ce/CdSeS nanomaterials: Wet-chemical synthesis and potential application in X-ray luminescence detectors, The 6th International Workshop on Nanotechnology and Application, November 8-11 (2017), Phan Thiet, Vietnam.
2. Phan Van Cuong, Resonance energy transfer applied to improve the X-ray excited luminescence of CdSeS quantum dots for radiation detection, The 42nd National Conference on Theoretical Physics, NCTP-42), July 31 - August 03 (2017), Can Tho, Vietnam.

3. **Phan Van Cuong** and Do-Hyung Kim, Luminescence enhancement of CdSeS quantum dots in LaF₃:Ce/CdSeS nanocomposites for radiation detection, The 9th international conference on photonics & applications, November 6 – 10 (**2016**). Ninh Binh, Vietnam
4. **Phan Van Cuong**, Jinsik Ju, and Do-Hyung Kim, Enhanced X-ray Excited Luminescence of LaF₃:Ce/CdSeS Nanocomposites for Radiation Detection, The 3rd International Conference on Advanced Materials and Nanotechnology, October 02-05 (**ICAMN 2016**), Hanoi, Vietnam. (**ISBN 978-604-95-0010-7**)
5. Phan Van Cuong, Dynamics Simulations at Atomic and Molecular scale for CO₂, H₂O and CaCO₃, Fifth International Workshop on Nanotechnology and Application, November 11-14 (**IWNA 2015**), Vũng Tàu, Vietnam.
6. **Phan Van Cuong**, Estimation of partial atomic charges of calcite (CaCO₃) by Electrostatic Potential Fitting method, 3rd International Workshop on Theoretical and Computational Physics (IWTCP-3), July 27-30 (**2015**), Đà Lat, Vietnam.
7. **Phan Van Cuong**, Tran Tien Phuc, Do-Hyung Kim, Self-catalyst synthesis of ITO tree-like nanostructures by chemical vapor deposition technique, 6th International Science, Social Sciences, Engineering and Energy Conference, December 17-19 (**2014**), Udon Thani, Thailand.
8. **Phan Van Cuong**, Tran Tien Phuc, and Kim Do-Hyung, Synthesis of Indium-Tin Oxide Nanostructures By Chemical Vapor Deposition Technique With Gold Catalyst And Self-Catalyst, the 4th International Workshop on Nanotechnology and Application, November 14 – 16 (**IWNA 2013**), Vung Tau, Vietnam.
9. **Phan Van Cuong**, Tran Tien Phuc, Synthesis of the Indium-Tin Oxide nanowires by the Vapor-Liquid-Solid technique, National conference on Technical Physics and Applications, Hue, Vietnam, October 8-12 (**2013**) (*Invited talk*). (**ISBN 978-604-913-232-2**)
10. **Phan Van Cuong**, Bjørn Kvamme, Tatiana Kuznetsova, and Bjørnar Jensen, The Impact of Short-Range Force Field Parameters and Temperature Effect On Selective Adsorption of Water and CO₂ On Calcite, International Conference on HEAT and MASS TRANSFER, January 25-27 (**2012**), Harvard, Cambridge, United States of America. (**ISBN 978-1-61804-065-7**)
11. **Phan Van Cuong**, Bjørn Kvamme, and Tatiana Kuznetsova, Effect of temperature and calcite on carbon dioxide transport and hydrate stability in geological formations, Third EAGE CO₂ Geological Storage Workshop, March 26 – 27 (**2012**), Edinburgh, United Kingdom.

12. **Phan Van Cuong**, Bjørn Kvamme, and Tatiana Kuznetsova, Molecular dynamics study of calcite and temperature effect on CO₂ transport and hydrate stability in geological formations, Thermodynamics 2011, September 1 - 3 (2011), Athens, Greece.
13. **Phan Van Cuong**, Bjørn Kvamme, and Tatiana Kuznetsova, Molecular dynamics study of mineral impact on mass transport and hydrate formation, European Geosciences Union, General Assembly 2011, April 03 - 08 (2011), Vienna, Austria.
14. Kvamme, B., Kuznetsova, T., Quasim, M., Vafaei, M.T., Chejara, A., Jemai, K., Baig, K., Jensen, B., **Cuong, P.**, Kivela, P.-K., Bauman, J, Multiscale modelling of CO₂ storage in cold reservoirs, CECAM workshop, June 22 - 24 (2011), Lausanne, Switzerland.
15. **Phan Van Cuong**, Joonghoe Dho, and Do-Hyung Kim, Effect of strontium doping level on electrical transport and magnetic properties of La_{1-x}Sr_xMnO₃ perovskite nanoparticles, Asean Workshop on Advanced Materials Science and Nanotechnology, September 15 - 20 (2008), Nha Trang, Vietnam.
16. Nguyen Hong Quang, **Phan Van Cuong**, and Do-Hyung Kim, Improvement of Adsorption Sites on Single-Walled Carbon Nanotube Bundles with Acid treatment, International Conference on Nano Science and Nano Technology, November 08 - 09 (2007), Gwangju, South Korea.
17. Kim Soo-Ho, Roh Yong-Suk, **Phan Van Cuong**, Chang-Hwan Chang, Kim Do-Hyung, Morphology control of self-catalytic Indium Tin Oxide Nanowires by oxygen, Trends in Nanotechnology - TNT2007, September 03 - 07 (2007), San Sebastian, Spain.
18. Nguyen Hong Quang, **Phan Van Cuong**, and Do-Hyung Kim, Enhancement of the sensitivity of single-walled carbon nanotube-based gas sensor with acid stirring treatment, International Workshop on Nanotechnology and Applications, November 15 - 17 (2007), Vung Tau, Vietnam.
19. **Phan Van Cuong**, Nguyen Hong Quang, and Do-Hyung Kim, La_{1-x}Sr_xMnO₃ perovskite nanoparticles. Sonochemical synthesis and their properties, International Workshop on Nanotechnology and Applications, November 15 - 17 (2007), Vung Tau, Vietnam.
20. **Phan Van Cuong**, Nguyen Hong Quang, Joonghoe Dho, and Do-Hyung Kim, Grain-boundary effects on the electrical resistivity and ferromagnetic transition temperature in sonochemically-synthesized La_{0.7}Sr_{0.3}MnO₃ nanoparticles, International Conference on Nano Science and Nano Technology, November 08 - 09 (2007), Gwangju, South Korea.
21. **Phan Van Cuong**, Kim Soo-Ho, Roh Yong-Suk, and Kim Do-Hyung, Nanorods of La_{1-x}Sr_xMnO₃ by microwave irradiation method, Conference of the Korea Physical Society, April 19 – 20 (2007), PiengChang, South Korea.