

# CURRICULUM VITA TUAN VO-DINH

## Business Address

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## EDUCATIONAL BACKGROUND

B.S. in Physics Engineering, 1971, Swiss Federal Institute of Technology- EPFL (Ecole Polytechnique Federale), Lausanne, Switzerland.

Ph.D. in Biophysical Chemistry, 1975, Swiss Federal Institute of Technology- ETH (Eidgenossische Technische Hochschule), Zurich, Switzerland.

## AWARDS AND ACADEMIC HONORS:

1981, *RD-100 Award for Most Significant Technological Advance in Research & Dev* (PNA Dosimeter)  
1986, *Award for Excellence in Technology Transfer*, Federal Laboratory Consortium  
1987, *RD-100 Award for Most Significant Technological Advance in R&D* (Fluoroimmunosensor)  
1988, *Gold Medal Spectroscopy Award*, Society for Applied Spectroscopy  
1989, *Languedoc-Roussillon Medal*, University of Perpignan (France)  
1992, *Scientist of the Year*, Oak Ridge National Laboratory  
1992, *Thomas Jefferson Award*, Martin Marietta Corporation  
1992, *RD-100 Award for Most Technologically Significant Product of the Year* (SERODS Technology)  
1992, *Inventors International Hall of Fame Award*, Inventors Clubs of America  
1994, *RD-100 Award for Most Technologically Significant Product of the Year* (PCB Spot Test)  
1995, *Award for Excellence in Technology Transfer*, Federal Laboratory Consortium (SERODS)  
1996, *Inventor of the Year Award*, Tennessee Inventors Association  
1996, *RD-100 Award for Most Technologically Significant Advance in R&D* (SERS Gene Probe)  
1997, *AMSE Award*, American Museum of Science and Technology (BiOptics)  
1997, *BER-50 Award for Exceptional Service for a Health Citizenry*, US Department of Energy  
1998, *Lockheed Martin Commercialization Award*, Lockheed Martin  
1999, *RD-100 Award for Most Technologically Significant Advance in R&D* (Multifunctional Biochip)  
2003, *Distinguished Inventors Award*, Battelle Memorial Institute  
2003, *Director's Award for Outstanding Accomplishments in Science and Technology*, UT-Battelle  
2003, *RD-100 Award for Most Technologically Significant Advance in R&D* (RAMITS)  
2003, *Distinguished Scientist of the Year Award*, Oak Ridge National Laboratory  
2007, *R. Eugene and Susie E. Goodson Distinguished Professor of Biomedical Engineering*, Duke University  
2011, *Award on Spectrochemical Analysis*, American Chemical Society  
2017, Induction to the *National Academy of Inventors (NAI)*  
2019, *Sir George Stokes Award*, Royal Society of Chemistry (United Kingdom)  
2022, *SPIE President's Award*, SPIE The International Society for Optics and Photonics

## EDITOR/EDITORIAL BOARD OF SCIENTIFIC JOURNALS:

*Editor-in-Chief*, NanoBiotechnology (2005-2009)  
*Associate Editor*, Journal of Nanophotonics (2006-present)  
*Associate Editor*, Plasmonics (2006-present)  
*Associate Editor*, Ecotoxicology and Environmental Safety (2003-2009)  
*Topical Editor*, Polycyclic Aromatic Compounds Journal (1988-present).  
*Associate Editor*, Analusis (1991-1998).  
*Editorial Board Member* of Applied Physics Reviews (2015-present).  
*Editorial Board Member* of Applied Spectroscopy Journal (1987-1999).  
*Editorial Advisory Board Member* of Talanta Journal (1990-1994).  
*Editorial Advisory Board Member* of Spectrochimica Acta Review (1990-1993).  
*Editorial Board Member* of Journal of Biomedical Optics (1995-present)

*Editorial Board Member of Journal of Analytical and Bioanalytical Chemistry (1999-2007)*  
*Editorial Board Member of Expert Review of Molecular Diagnostics (2001-present)*  
*Editorial Board Member of Journal of Luminescence (2002-present)*  
*Editorial Board Member of Nanomedicine (2006-present)*  
*Editorial Board Member of Journal of Science-Advanced Materials and Devices (2017-present)*

### **PROFESSIONAL SOCIETIES:**

- Fellow, Royal Society of Chemistry (RSC)
- Fellow, National Academy of Inventors (NAI)
- Fellow, American Institute of Medical and Biological Engineering (AIMBE)
- Fellow, SPIE, The International Society of Optical Engineering
- Fellow, American Institute of Chemists (AIC)

Member: American Association for the Advancement of Science, American Chemical Society, Society for Applied Spectroscopy, ASTM, American Society for Testing Materials, International Society on Polycyclic Aromatic Compounds, Optical Society of America

### **PROFESSIONAL POSITIONS:**

(\*) *Concurrently held positions*

2006-present Duke University, Durham, North Carolina, U.S.A.

**Director (\*)**, **Fitzpatrick Institute for Photonics (FIP)** [[www.fitzpatrick.duke.edu](http://www.fitzpatrick.duke.edu)]. Provide leadership and management to the FIP, which was established at Duke University in 2000 by a \$25,000,000 gift from Michael and Patty Fitzpatrick [[www.fitzpatrick.duke.edu/Fitzpat5.pdf](http://www.fitzpatrick.duke.edu/Fitzpat5.pdf)]. The research activities of the FIP involves over 60 faculty members from over 20 departments at the Edmund Pratt Engineering School, the Arts & Sciences School and the Medical School at Duke University. The research programs are organized into various areas including: Biophotonics, Nano & Micro Systems, Nanophotonics, Quantum Optics & Information Photonics, Theoretical Modeling and Novel Spectroscopies.

**R. Eugene and Susie E. Goodson Distinguished Professor of Biomedical Engineering (\*)**  
Pratt School of Engineering, Duke University: July 1, 2007 – present  
[<http://www.bme.duke.edu/faculty/vodinh/index.php>]

**Professor of Chemistry (\*)**, Department of Chemistry, Arts & Sciences and Trinity College, Duke University  
[<http://fds.duke.edu/db/aas/Chemistry/faculty/tuan.vodinh>]

1977–2006 Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee, U.S.A.

2003–2006 **Director**, Center for Advanced Biomedical Photonics (CABP): In coordination with the ORNL Associate Director, is responsible for development and implementation of the Laboratory programs and strategic plans on bioengineering research initiatives [[www.ornl.gov/sci/cabp](http://www.ornl.gov/sci/cabp)]. This position involves the development of complex, multi-disciplinary research programs, involving integration and coordination of research activities and interactions of scientific staff from 4 different ORNL divisions and investigators from over 10 academic and research institutions.

1994–2006 **Corporate Fellow**: one of the highest honors for distinguished scientists at ORNL; Member of the Corporate Fellow Council, which assists the ORNL Laboratory Director formulate effective scientific program strategies consistent with the overall goals of the laboratory.

1984–2006 **Group Leader**, Life Sciences Division, ORNL: Responsible for leadership and management of research groups. Responsible for all financial, human, equipment, and facility

resources for research groups in environmental monitoring systems and bioengineering and medical applications. This line management position provides the opportunity to creatively managing and motivating staff, leveraging diversity, promoting developmental opportunities for staff, and fostering commitment and team spirit.

- Advanced Biomedical Science & Technology Group (2000-present)

- Advanced Monitoring Development Group (1984-2000)

[[www.ornl.gov/sci/biosensors](http://www.ornl.gov/sci/biosensors)]

1977–1984 **Staff Research Scientist**, Health and Safety Research Division, ORNL. Responsible for the research and development of environmental and biological monitoring of chemical pollutants and biomarkers of health effects associate with energy technologies

Summer 2010 **Visiting Professor**  
University of Paris Diderot- Paris 7  
Paris (France)

Spring 2004 **Distinguished Visiting Professor**  
Department of Chemistry  
University of Florida  
Gainesville, Florida, U.S.A.

2000–2006 **Adjunct Professor** (\*)  
Department of Neurosurgery  
University of California – San Francisco Medical School  
San Francisco, California, U.S.A.

1987–2006 **Adjunct Professor** (in three Departments)  
Graduate School of Genome Science and Technology (formerly Graduate School of Biomedical Sciences); Department of Chemistry, and Department of Environmental Practice  
University of Tennessee  
Knoxville, Tennessee, U.S.A.

Spring 1999 **Visiting Professor**  
Department of Chemistry  
University of Rome *La Sapienza*  
Rome (Italy)

### **PROFESSIONAL EXPERIENCE:**

In Biomedical Engineering, Biophotonics, Molecular Imaging, Plasmonics, Nanophotonics, Photothermal Therapy, Photo Immunotherapy:

- Developed screening techniques for measuring human exposure to carcinogens (DNA adducts).
- Developed laser "optical biopsy" for cancer diagnosis: esophageal and cervical cancer (US Patent, licensed to Optical Biopsy, LLC; and to SpectroDiagnostics, Inc.)
- Developed nanoprobe for molecular imaging based on plasmonics (US patent pending)
- Developed nano-biosensor for single living cell analysis.
- Developed a continuous SERS monitor for analytical, environmental, and medical analysis with filter paper-based substrates (U.S. Patent) (Licensed to Gamma-Metrics, Inc.).
- Developed an antibody-based fluoroimmuno sensor for the detection of toxicologically important compounds in microsamples of body fluids (US Patent).
- Developed SERS Nanoprobe 'Molecular Sentinel' for biomedical diagnostics (US Patent).
- Developed molecular probe for biomedical diagnostics using Plasmonic Coupling Interference (PCI) (US Patent pending).
- Developed advanced molecular probes ('Inverse Molecular Sentinel') for biomedical diagnostics (US Patent).
- Developed advanced ultrasound technique for brain injuries and brain diseases monitoring (US Patent).
- Developed non-invasive spectroscopic techniques (fluorescence, Raman, SERS) for disease

- diagnostics: cancer, heart diseases, infectious disease, diabetes, etc. (US Patents).
- Developed DNA Biochip for gene diagnostics and pathogen detection (US Patent; licensed to NanoDetection Technologies); RD-100 Award.
  - Developed a new enhanced photonic modality for non-invasive photothermal therapy (US patent)
  - Developed new photonic technique for Synergistic Immuno Photo Nanotherapy (SYMPHONY) (US patent pending)

#### In Analytical Chemistry and Chemical Engineering and Biological Sensing:

- Developed ultrasensitive spectroscopic technologies (synchronous luminescence, room temperature phosphorescence, SERS techniques) to detect byproducts and environmental pollutants associated with energy production (petroleum, sunfuel, biofuel technologies)
- Established a new methodology for multicomponent analysis of complex systems for use as cost-effective monitoring technique in process and environmental control, energy production, pharmaceutical analysis, industrial hygiene, and cancer diagnostics applications.
- Investigated plasmonics systems for advanced solar energy conversion systems
- Developed a novel laser-based technique for trace analysis based upon the surface-enhanced Raman scattering (SERS); (U.S. Patent), licensed to IdentiChem, Inc.
- Invented a new passive dosimeter for sensitive detection of hazardous vapors produced during industrial and energy-related processes (U.S. patent); RD-100 Award.
- Developed a fiber-optics lightpipe luminoscope for monitoring skin contamination of workers in petrochemical, coal-related, and agricultural industries (licensed to Environmental Systems, Inc.).

#### Physical Chemistry and Optical Engineering:

- Investigated molecular and electronic spectroscopies of organic compounds of environmental, industrial, biological and medical importance.
- Developed a laser-induced site-selection method using the "Shpolskii" technique for organic analysis of complex mixtures.
- Investigated structural characterization of biological compounds such as carcinogens and drugs in biomembrane systems.
- Acquired extensive practical experience in cryogenic technology (liquid nitrogen and liquid helium temperature techniques) and laser spectroscopy.
- Developed a New Optical Data Storage Technology based on SERODS (U.S. Patent)
- Developed applications for solid-state acousto-optic tunable filters (AOTF) for optical detection (multispectral molecular imaging).

### **SCIENTIFIC CAREER SUMMARY**

Dr. Vo-Dinh's research has profound impact in many fields involving biophotonics, laser-excited luminescence spectroscopy, room temperature phosphorimetry, synchronous luminescence spectroscopy, surface-enhanced Raman spectroscopy, field environmental instrumentation, fiberoptics sensors, nanosensors, biosensors and biochips for the protection of the environment and the improvement of human health. The impact and recognition of his scientific achievements are reflected by the numerous national and international awards.

Fundamental research on the synchronous luminescence (SL) methodology by Dr. Vo-Dinh has set the foundations of the technique for a variety of applications. The SL technique he developed for multicomponent analysis of complex samples can be used as a cost-effective monitoring for chemical analysis. This work has also led to numerous applications in environmental, biological, and medical fields. The SL technique is being used at U.S. companies to lower the cost of quality assurance and environmental control procedures. It was applied at the National Cancer Institute to detect carcinogen-DNA adducts. Synchronous luminescence is a simple and cost-effective technique that can be used to detect carcinogen-DNA cancer in animals and disease humans. The SL technique he developed was applied at the National Cancer Institute to detect carcinogen-DNA adducts. The significance and impact of this SL technique is reflected by the fact that, since the early 1980s, most spectrometer companies (Perkin-Elmer, SPEX Industries, etc.) have now incorporated SL as a standard feature in modern luminescence instruments citing Dr. Vo-Dinh SL studies. The proprietary SL technique is currently developed for multispectral imaging of cancer (gastro-intestinal cancer) and precancerous conditions (Barrett's dysplasia).

Dr. Vo-Dinh was one of the first scientists to develop and effectively utilize the Room Temperature Phosphorescence (RTP) technique for the rapid and cost-effective analysis of trace organic compounds adsorbed on filter paper. The RTP technique is an important advance because it provides a new practical, cost-effective and much needed screening tool. Unlike conventional low-temperature phosphorimetry, the RTP technique does not require expensive cryogenic equipment and low-temperature refrigerant. The RTP instrumental features and capabilities are highlighted by several spectrometer manufacturers (Spex Industries). *He was invited to write the first textbook book on RTP* (Wiley, 1984).

He has developed the RTP technique for use in a passive personnel dosimeter (the PNA monitor, US patent, 1987) that is designed to detect potentially toxic organic chemicals in occupational and residential environments. He was awarded his first RD-100 Award in 1981.

Recognizing the potential of the use of laser in vibrational spectroscopy, Dr. Vo-Dinh has focused his research activities on the development of the surface-enhanced Raman scattering (SERS) technique for trace organic analysis. *He published the first paper on the analytical use of SERS for organic analysis.* Prior to this work, most SERS studies have been limited to basic research and restricted to a few molecules. *He was awarded one of the first SERS-related U.S. patents* (1987) for the instrument which he has developed to continuously monitor and analyze complex chemical and biological samples. This invention is an important advance for the SERS technology in organic analysis because it successfully demonstrates that practical, simple-to-prepare, and cost-effective metal-covered filter materials coated with nanoparticles can provide efficient SERS substrates for use to detect chemical and biological compounds. The SERS technology was further developed to analyze environmental samples, cosmetics, drugs, and food products to make these products safer or to detect diseases as well as for optical data storage. The SERS technique has led to the development of a new generation of molecular gene probes for the detection and molecular imaging of multiple diseases simultaneously (e.g., cancer, pathogens).

Always at the frontier of chemical instrumentation using light-matter interactions, his recent research endeavors have been focused on integrating biotechnology, fiberoptics, laser techniques and molecular spectroscopy to develop the first antibody-based fiberoptics fluoroimmunosensor (FIS) device. The fiberoptics fluoroimmunosensor (FIS) with a microregenerable probe is a breakthrough in chemical and biological sensing technology for a wide spectrum of biochemical and clinical applications, such as the assessment of an individual's exposure to chemical carcinogens, bioamakers for precancerous DNA damage (DNA adducts), response to drug therapy, and characterization of naturally occurring biologically active substances. The FIS will also open new horizons to a fundamental technology of "smart catheter/sensor" for *in vivo* analysis. He was awarded his second *RD-100 Award* for this achievement in 1987.

In 1988 he received the *Gold Medal Award* from the Society of Applied Spectroscopy (SAS). Notable achievements cited by the SAS award committee include his pioneering work in "*...solid-substrate room temperature phosphorescence, adaptation of laser-induced site selection spectroscopy to analysis of complex mixtures, and development of trace analysis techniques based on surface-enhanced Raman scattering spectroscopy.*"

In 1989 Dr. Vo-Dinh received the *Languedoc-Roussillon Medal* from the President of the University of Perpignan (France) for this scientific achievement.

In 1992, he received the *Inventor-of-the-Year Award* from ORNL, the *Thomas Jefferson Award*, the highest honor for technical achievement from Martin Marietta Corporation. He also received in 1992 the *International Hall of Fame Award* in Advanced Technology from the Inventor Clubs of America, and his third *RD-100 Award* for the development of the SERODS optical data storage.

In the field of cancer diagnostics, Dr. Vo-Dinh and his coworkers have developed a unique *laser-induced fluorescence (LIF) technique* that can provide effective indices to diagnose malignant tumors in the esophagus without biopsy. The method was successfully tested with over 200 patients with nearly 100% accuracy for detecting gastro-intestinal cancer in collaboration with The Thompson Cancer Survival Center. The DNF method led to the development of a rapid *in-situ* technique for non-invasive cancer diagnosis which does not require biopsy surgery, thus decreasing time and cost, as well as improving effectiveness of cancer prevention and treatment.

Dr. Vo-Dinh has developed a novel integrated *Multi-functional Biochip* (MFB) which allows simultaneous detection of several disease end-points using different bioreceptors such as DNA, antibodies, enzymes, cellular probes) on a single biochip platform. An important element in the development of the MFB involves the design and development of an integrated circuit (IC) electro-optic system for the microchip detection elements using the complementary metal oxide silicon (CMOS) technology. The biochip has applications for rapid diagnostics and screening multiple medical diseases (cancer, BRCA1, HIV, tuberculosis, etc.) and infectious pathogens (*B. anthracis*, *B. globigii*, *E. coli*, etc.). The technology has been licensed to *HealthSpex, Inc.* and *NanoDetection, Inc.*

Advances in nanotechnology and photonics have recently led to a new generation of devices for probing the cell machinery, elucidating intimate life processes occurring at the molecular level that were heretofore invisible to human inquiry. Recently, with the advent of nanotechnology, Dr. Vo-Dinh developed *the first antibody-based nanobiosensor* for monitoring biochemical species in a single living human cell (publication in *Nature Biotechnology*).

He recently developed a new generation of *plasmonics-based nanoprobes* (“molecular sentinels”-MS) for use in molecular imaging and medical applications (US patent pending). The MS nanoprobes have been successfully used to detect genomic biomarkers for cancers (e.g., breast cancer, gastro-intestinal cancer, head and neck cancer) and infectious diseases (e.g., HIV, malaria, dengue).

With the development of a novel two-pronged modality referred to as Synergistic Immuno Photothermal Nanotherapy (SYMPHONY), which combines immune-checkpoint inhibition and plasmonic gold nanostar (GNS)-mediated photothermal therapy, Vo-Dinh and his clinical collaborators were able to achieve complete eradication of primary treated tumors and distant untreated’ tumors and induce a long-term ‘anticancer vaccine’ effect in mice implanted with the MB49 bladder cancer cells.

His scientific achievements and impact have led to numerous invitations to organize and chair over 20 national and international conferences. In 1993 he was invited to serve as the *Honorary Chairman* of the first international Symposium Analytical Sciences (SAS) held in Deauville (France). In 1994, he served as the *Honorary Chairman* of the second SAS international conference held in Montreux (Switzerland).

In 1994 for his distinguished achievements, Dr. Vo-Dinh was promoted to *Corporate Fellow*, one of the highest honors for distinguished scientists at Oak Ridge National Laboratory.

In 1997, Dr. Vo-Dinh was selected as *one of the 12 scientists nationwide* to receive the prestigious *Biological and Environmental Research BER-50 Award* from the US Department of Energy (DOE) for Distinguished Service to a Healthy Citizenry at the 50th Year Anniversary of the DOE Biological and Environmental Research (BER) Program.

[<http://genome.gsc.riken.go.jp/hgmis/publicat/berawards/index.html>]

In 2002, the Department of Commerce's United States Patent and Trademark Office (USPTO) recognized Dr. Vo-Dinh as “one of the four Asian Pacific Americans whose inventive abilities led to patents of products of benefit to all Americans and “*whose inventions have contributed to making this country the most technologically advanced in the world*”.

[<http://www.uspto.gov/web/offices/com/speeches/02-37.htm>]

In 2003, Dr. Vo-Dinh was named *Distinguished Scientist of the Year* at Oak Ridge National Laboratory, for “*his extraordinary scientific contributions over a 26-year career at ORNL, which includes numerous publications and innovations in the field of human health improvement and environmental protection*”.

[[http://www.ornl.gov/info/press\\_releases/get\\_press\\_release.cfm?ReleaseNumber=mr20031125-00](http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20031125-00)]

In 2007, one year after joining Duke University, Dr. Vo-Dinh was awarded the *R. Eugene and Susie E. Goodson Distinguished Professorship of Biomedical Engineering* for “*his many accomplishments and advancements in the field of biomedical engineering*”. The distinguished professorship is the highest honor Duke University can award to its faculty.

In 2011, Dr. Vo-Dinh received the *Award on Spectrochemical Analysis* from the American Chemical Society (ACS) Division of Analytical Chemistry. The ACS Division of Analytical Chemistry presents annually this award

to "recognize an individual who through scholarly activity has definitely and uniquely advanced the field of spectrochemical analysis and optical spectrometry" [<https://acsanalytical.org/awards-resources/national-acs-awards/spectrochemical-analysis-2/>].

In 2013, Dr. Vo-Dinh was selected to *The Analytical Scientist Power List*, which recognizes the *100 Most Influential People* in the Analytical Sciences [<https://theanalyticalscientist.com/the-power-list-2013>].

In 2015, Dr. Vo-Dinh chaired the *World Photonics Forum*, organized on March 9-10, 2015 at the Fitzpatrick Institute for Photonics (FIP) to celebrate the 2015 *International Year of Light* (IYL), which proclaimed by the United Nations. Key events included a roster of distinguished speakers – including two Nobel laureates – and a pre-symposium open house to expose the latest in light-based science and technologies to the public.

In 2017, Dr. Vo-Dinh was inducted as *Fellow to the National Academy of Inventors* (NAI). [<https://academyofinventors.org>]. Dr. Vo-Dinh was recognized for his pioneering development of a new generation of SERS gene probes that are able to detect nucleic acid biomarkers miRNAs to improve the early detection and diagnosis of cancer, with additional applications in high-throughput screenings and systems biology research. With over 49 patents, Vo-Dinh has also developed a wide variety of biophotonics technologies ranging from laser-induced fluorescence for direct detection of tumors without physical biopsy and a multifunctional biochip for global health and point-of-care disease diagnosis to plasmonics systems for nanoparticle-mediated photothermal therapy and immunotherapy in order to treat cancer and induce a long-term anti-cancer ‘vaccine’ effect

In 2018, Dr. Vo-Dinh was invited to speak at UNESCO, the United Nations Educational, Scientific and Cultural Organization headquarters in Paris, France, on May 16, 2017 for the Inaugural Ceremony celebrating the first “*International Day of Light*” [<https://www.lightday.org>]. The annual event is intended to raise worldwide awareness of the many ways that light impacts modern society and to consider how advances in light-based science and technology can aid in achieving goals in education and sustainable development. Dr. Vo-Dinh’s talk at UNESCO is entitled “Light Empowering Humanity”: <https://www.youtube.com/watch?v=2FniAukiy0A>

In 2019, Dr. Vo-Dinh has been awarded the *2019 Sir George Stokes Award* by the Royal Society of Chemistry (RSC), Analytical Division, United Kingdom. Vo-Dinh was recognized for his "outstanding and sustained contributions to analytical science through innovations in the field of photonics, spectroscopy, molecular biology and nanotechnology." The Sir George Stokes award is an award presented every two years by the RSC that recognizes outstanding and sustained contributions to analytical science by someone demonstrably working in a complementary field, which has led to developments of seminal importance to chemical analysis. <https://pratt.duke.edu/about/news/vo-dinh-george-stokes-award>

The *RSC Sir George Stokes Award Symposium Honoring Tuan Vo-Dinh* was organized at the 2021 Annual SciX Conference, the premier meeting for analytical chemistry and allied sciences on September 30, 2021, Providence, Rhodes Island. <https://www.scixconference.org/RSC-Sir-George-Stokes-Award/>

In 2022, Dr. Vo-Dinh received the *2022 SPIE President’s Award*, from SPIE, the International Society for Optics and Photonics. The SPIE President’s Award is presented to an individual who, in the opinion of the President and the Board of Directors, has rendered a unique and meritorious service of outstanding benefit to the Society. <https://spie.org/news/tuan-vo-dinh-the-2022-spie-presidents-award>

### **RESEARCH MANAGEMENT AS PRINCIPAL INVESTIGATOR OR CO-PRINCIPAL INVESTIGATOR OF RESEARCH PROGRAMS AND GRANTS**

- |           |  |
|-----------|--|
| 2022-2027 | RAPID System for Early Detection of Head and Neck Cancer in Low-Resource Settings, Sponsor: National Institutes of Health (NIH) # 1R01DE030455-01A1 (5 yrs; \$2.7M); MPIs: Vo-Dinh and Walter Lee. |
| 2022-2024 | Nanoplasmonic Biosensor Using Olfactory Receptor System, Sponsor: Bill and Melinda Gates Foundation (INV-040790) (Phase I, 2 years: \$373K); PI: Vo-Dinh   |

- 2019-2023 Integrated Acoustofluidic Plasmonic Molecular Diagnostic System for Detecting MicroRNA Biomarkers. Sponsor: National Institutes of Health (NIH) #1R01GM135486-01 (4 yrs; \$1.7 M); PI: Vo-Dinh
- 2019-2023 Plasmonic nanoparticle-mediated immunotherapy to treat metastatic cancer. Sponsor: National Institutes of Health (NIH) #1R01EB028078-01A1 (4 yrs; \$2.1 M); MPIs: Vo-Dinh and Inman
- 2018-2022 Plasmonics-Enhanced Optical Imaging Systems for Bioenergy Research. Sponsor: Department of Energy (DOE) Office of Science # DE-SC0019393 (3 yrs; \$1.3 M); PI: Vo-Dinh
- 2020-2023 Product Development of the Vertical Integrated Flow Assay System Technology ("VERIFAST") for Multiplex Pathogens Detection. Sponsor: Advanced Technology International/Defense Threat Reduction Agency # OTA W15QKN-16-9-1002 (3yrs; \$380K); PI: Zenhausern; Duke Subaward PI: Vo-Dinh
- 2018-2019 Gold Nanostars: Orchestrating a Shining SYMPHONY Against Cancer. Sponsor: Duke Chancellor Discovery Award (1yr; \$75K); PI: P. Fecci, co-PI: Vo-Dinh
- 2018-2019 Nanoplasmonic Molecular Sentinels for Targeting Oncogenic RNA Splice Variants Driving Aggressive Cancer. (1yr; \$30K); PI: S. Patierno, co-PI: Vo-Dinh
- 2015-2018 Nanoplasmonics-based Molecular Analysis Tool for Molecular Biomarkers of Cancer; Sponsor: National Institutes of Health (NIH) #1R21CA196426 (3 yrs: \$670K); PI: Vo-Dinh
- 2015-2018 Multi-functional Plasmonics Nanoprobes for Cellular Sensing and Imaging; Sponsor: Department of Energy (DOE) Office of Science # DE-SC0014077 (3 yrs; \$1.725M); PI: Vo-Dinh
- 2016-2019 Synergistic immuno-photo-nanotherapy for bladder cancer, Sponsor: Department of Defense # W81XWH-17-1-0567 (2 yrs: \$625K); PI: Inman
- 2016-2018 Bloodborne Tropical Pathogen Detection Using multiple Nanophotonic Arrays; Sponsor: National Institutes of Health (NIH) # 1R21AI120981-01 (2 yrs: \$440K); Co-lead Multiple PIs: Taylor & Vo-Dinh
- 2016-2018 Development of special-shaped, low-cost, metal nanoparticles; Sponsor: Luna Innovations, Inc.; No.3136.02DU-W911SR-16-C-0014 D0-C9; (2yrs, \$120K); Site PI: Vo-Dinh
- 2012-2016 Plasmonics-Active SERS Nanoplatforms for *In Vivo* Diagnostics (PASNID); Sponsor: Department of Defense (DARPA) # HR0011-13-2-003 (5 yrs: \$3.4M); PI: Vo-Dinh
- 2014-2015 Development and Synthesis of Gold Nanostars for Plasmonics Applications (MIPR Supplement to Transformation Optical Materials); Sponsor: US Army Research Office (1Yr: \$60,000); PI: Vo-Dinh
- 2015-2016 Plasmon-Enhanced Hybrid Photovoltaic/Photocatalytic Hydrogen Generation: Sponsor: Duke University Energy Initiative Fund (1Yr: \$30,000); PI: Hotz; Co-PIs: Mitzi and Vo-Dinh
- 2014-2015 Hydrogen Generation by Enhanced Photocatalysts Assisted by Plasmonic Structures; Sponsor: Duke Energy Research Initiative Fund (1Yr: \$40,000); PI: Hotz; Co-PI: Vo-Dinh
- 2012-2014 Plasmonics-Active Nanoplatforms for SERS Detection: Study and Evaluation of Nanostars; Sponsor: BD Technologies Corp.; SPS #189498; (2yrs: \$224,000); PI: Vo-Dinh
- 2013-2014 Enhanced Photocatalytic Hydrogen Generation Assisted by Plasmonic Structures; Sponsor: Pratt Seed Fund, (1Yr: \$27,000); PI: Hotz; Co-PI: Vo-Dinh
- 2013-2014 Design and Synthesis of Plasmonic Nanoshells for Advanced Obscurants; Sponsor:Luna Innovations, Inc. (SBIR PI; W911 SR-13cC-0071)(Duke PI: Vo-Dinh)
- 2012-2012 Europrode XI Conference, Barcelona, Spain, 2012; Sponsor NSF # 3390077 ; (1yr: \$10,000); PI: Vo-Dinh
- 2009-2014 Photonic Studies of Emission, Communication, and Signal Processes in Cellular Systems; Sponsor: Immunolight, LLC, (5 years: \$1M); PI: Vo-Dinh
- 2009-2011 Dynamic Testing of Signal Transduction Deregulation During Brest Cancer Initiation; Sponsor: US Army Research; W81XWH-09-1-0064 (2 Yrs: \$500K); PIs: Sewaldt and Vo-Dinh
- 2009-2010 Development of a Point-of-Care Diagnostic for Candidemia and Community-acquired Respiratory Tract Infection Nanoprobes Using Molecular Sentinel, Sponsor: Coulter Foundation (1 yr: \$320K); PI: Ginsburg; Co-PI: Vo-Dinh
- 2008-2011 Photo-X: Non-invasive Photonic Modalities for Disease Treatment, Sponsor: Immunolight, LLC, (3 years: \$8M); PI: Vo-Dinh
- 2007-2012 Nanobiosensors for Probing Chemical Exposure and Metabolism Pathways of Individual Cells. Sponsor: National Institutes of Health (NIH); R01 ES014774-01A1 (3 yrs: \$1.2M); PI: Vo-Dinh
- 2006-2011 Ultrahigh Throughput Screrening (µHTS) Based on Surface-enhanced Raman Scattering. Sponsor: National Institutes of Health (NIH); R01 EB006201(4 years: \$2M); PI: Vo-Dinh



2007-2009 Fiber Optic and III-Nitride Materials-based Chemical and Biological Sensing. Sponsor: Army Research Office (2 year; \$80K); PI: Vo-Dinh

2001-2008 Advanced Multi-spectral Imaging for Cancer Diagnostics: Sponsor: National Institutes of Health (NIH); Biomedical Research Partnership (BRP); R01 CA088787 (5 years: \$2M); PI: Vo-Dinh

2007-2009 Development Of Advanced Raman Spectroscopy Methods And Databases For The Evaluation Of Trace Evidence And The Examination Of Questioned Documents. Sponsor: Dept of Justice (2 yrs: \$1M); Co-PI: Vo-Dinh, PI: J. R. Lombardi

2007-2008 Fiber Optic and III-Nitride Materials-based Chemical and Biological Sensing. Sponsor: Army Research Office (1yr: \$40K); Co-PI: Vo-Dinh; PI: M. Gerhold

2005-2007 Development of Nanoprobes for Imaging Single Cells Under Low-Dose Radiation (DOE) (3 years: \$300K); PI: Vo-Dinh

2004-2006 Advanced Biosensor Systems; Sponsor: Department of Energy (DOE) (5 years: \$1.5M); PI: Vo-Dinh

2004-2006 Advanced Plasmonic Sensors for Homeland Defense; Sponsor ORNL LDRD Program (3 years: \$500K); PI: T. Vo-Dinh

2003-2006 Biosensor for Reactive Oxygen Species; Sponsor: Philip Morris (3 years: \$1M); PI: Vo-Dinh

2004-2005 Advanced Algorithm for Hyperspectral Fluorescence Imaging for Skin Cancer Diagnostics; Sponsor ORNL SEED Funds (2 years: \$125K) PI: Vo-Dinh

2003-2005 NSOM and 3-D ORAM Radiation Dosimeter; Sponsor: DOE Office of Non Proliferation (3 years: \$1.2M); PI: Bogard, Co-PI: Vo-Dinh

2001- 2005 Raman Monitoring Sytem for BeO Exposure: Sponsor: National Security Administration and BWXT-Y12, LLC (4 yrs: \$1M); PI: Vo-Dinh.

1996 - 2004: Ultrasound Detection for Brain Injury. Sponsor: Department of the Army (5 yrs; \$650K) PI: Vo-Dinh

1999 – 2004 Advanced Multifunctional Biochip for Biochem Detection: Sponsor-US DOE (5 yrs; \$2.5M); PI: Vo-Dinh

2000 – 2004 DNA Biochip for Environmental Monitoring; Sponsor-US Navy, New Mexico Tech. (3 yrs; \$1M); PI: Vo-Dinh

1999 – 2001 Advanced Synchronous Luminescence for Biomedical Diagnostics: Sponsor-US DOE (2 yrs; \$550K); PI: Vo-Dinh

2000 – 2002 Raman Monitor for Carbon Sequestration; Sponsor-ORNL (2 yrs; \$300K); Co-PI: Vo-Dinh; PI: S. Wullschleger.

1998 – 2001 Analytical Instrumentation: Sponsor-Federal Bureau of Investigation (4 yrs; \$900K); PI: Vo-Dinh

1998 – 2003 3D ORAM Dosimeter: Sponsor: US DOE and DTRA (6 years; \$1M) PI: Bogard, Co-PI: Vo-Dinh

1998 – 2003 Monitoring Systems for PAHs; Philip Morris, WFO No. ERD-99-1735 (5 yrs; \$2M); PI: Vo-Dinh

1997 - 2000: Advanced Nanosystems for Chemical Analysis and Medical Diagnostic. Sponsor: ORNL-LDRD (3 yrs; \$800K); PI: Vo-Dinh

1997 - 1999: SERS Gene for DNA Sequencing. Sponsor: US DOE (2 yrs; \$200K) PI: Vo-Dinh

1977 - 2000: Dosimetry for New Energy Systems Pollutants. Sponsor: U.S. Department of Energy (DOE): KP0102 (10 yrs; \$300K/yr); PI: Vo-Dinh

1993 - 1996: Advanced Biosensors. Sponsor: ORNL-LDRD Project (3 yrs; \$1M); PI: Vo-Dinh

1988 - 2000: Advanced In Situ Spectroscopic Analytical Methodologies and Instrumentation. Sponsor: U.S. Env. Protection Agency: DW-89-936227-01-1 (5 yrs; \$750K), PI: Vo-Dinh

1993 - 1998: Development of a SERODS Device. Sponsor: Office of Naval Research and AFOSR NOO14-41 F-0042 (3 yrs; \$1M), PI: Vo-Dinh

1994 - 1997: SERS Drug Detection. Sponsor: Gamma-Metrics, Inc. (\$50K), PI: Vo-Dinh

1988 - 1992: Surface-Enhanced Optical Data Storage. Sponsor: Office of Naval Research - NOO14-41-F-0042 (\$1M) 1866-E030-A1 (3 yrs; \$485K), PI: Vo-Dinh

1988 - 1989: Director's R&D Research Grants (Human Genome, SERS, UV-B Projects). Sponsor: Oak Ridge National Laboratory. (\$150K), Co-PI: Vo-Dinh

1991 - 1992 Luminescence Spot Test for PCBs. Sponsor: Office of Technology Development, US DOE (2 yrs; \$280K), PI: Vo-Dinh

1991 - 1994: SERS Dosimeter and Monitor. Sponsor: DOE Office of Arms Control No. ST766 (3 yrs; \$698K), PI: Vo-Dinh

1989 - 1991: Field Evaluation of Cost-Effective Screening Procedures in Indoor Air. Sponsor: U.S. Environmental Protection Agency; DW8930725 (2 yrs; \$160K), PI: Vo-Dinh

- 1986 - 1988: Integrated Study of Biomarker Formation and Mutagenic Profile in Mammalian Cells, Animals, and Human. Sponsor: U.S. EPA. (2 yrs; \$500K), Co-PI: Vo-Dinh (PI: E. Zeighami)
- 1982 - 1987: Practical Development and Fundamental Studies of Surface-Enhanced Raman Spectroscopy for Toxic Chemicals Detection. Sponsor: U.S. Dept of the Army; No. 3311-1450 (3 yrs; \$400K), PI: Vo-Dinh
- 1985 - 1988: Fiberoptics-Based Fluoroimmuno-Sensors. Sponsor: National Institutes of Health: (No. GM 34730-03) (3 yrs; \$171K); PI: Sepaniak, Co-PI: Vo-Dinh
- 1984 - 1985: Fluoroimmuno-Sensors. Sponsor: National Science Foundation: OIR-8413145 (2 yrs; \$107K), PI: Sepaniak; Co-PI: Vo-Dinh
- 1983 - 1985: Evaluation of Protective Clothing Materials. Sponsor: American Petroleum Inst. (2yrs; \$75K), Co-PI: Vo-Dinh; PI: Gammage
- 1983 - 1984: Evaluation of Screening Tools for Polynuclear Aromatic Pollutants in a Field Study. Sponsor: US EPA and PEDCO Environmental, Inc.; ERD-82-190 (1 yrs; \$75K), PI: Vo-Dinh

### **CHAIRMANSHIP, PROFESSIONAL COMMITTEE, AND RELATED ACTIVITIES:**

#### Research Grant Review Committee:

Chaired the 2007 NIH study session panel on Quantum Grants program; Member of various NIH Review Committee on numerous panels and study groups related to biomedical engineering, cancer research, biomedical instrumentation, molecular imaging and nanobiotechnology; (1998-present).

Member NSF Review Committee on various panels related to sensors, and biomedical engineering (1999-present).

Invited reviewer of the European Union (EU) research program on nanobiotechnology, Vienna (Austria) October 22-23, 2006)

Invited reviewer of grants and contracts for the American Chemical Society, Department of Energy, National Institutes of Health, National Science Foundation, and the Petroleum Research Fund (1995 - present).

Member of U.S. Environmental Protection Agency ASRL Peer Review Committee (1985 - present).

Member of NIEHS Site Review Committee - NIEHS Center Grant - University of Cincinnati (1990).

Member of NIH Review Committee on NIH Shared Instrumentation Grant Program (1988).

Co-chair, EPA Peer Review Committee, Environmental Chemistry and Physics on Air Toxics Program, Raleigh, NC (1994 -1995).

#### Chairmanship for National and International Conferences and Symposia:

Chairman of *Scientific Panel on Monitoring Instrumentation for Occupational Health Research Program*, Office of Health and Environmental Research, U.S. Department of Energy (1984).

Organizer and Co-Chairman, *Scientific Work Group on Review and Establishment of Database for Polycyclic Aromatic Hydrocarbons*, U.S. Department of Energy and Environment Canada (1985).

International Program Committee Member: *International Symposium on Polyaromatic Hydrocarbons* (1987-present).

Scientific Organizing Committee Member, SPIE's *Symposium on Laser Spectroscopy*, Los Angeles, CA (1988).

Co-Chairman, *Second Meeting on Polycyclic Aromatic Compounds Database*, Gaithersburg, MD (1986).

Co-Chairman, SPIE's *Symposium on Laser Spectroscopy*, Fluorescence Detection II Conference, Los Angeles, CA, January 10, 1988.

Chairman, *ASTM Workshop on Luminescence Spectroscopy*, Oak Ridge National Laboratory, Oak Ridge, TN, June 3, 1988.

Chairman, *Symposium on Laser-Based Approaches in Luminescence Spectroscopy*, FACSS Meeting, Boston, MA, Oct 30-Nov 4, 1988.

Co-Chairman, *Conference on Fluorescence Detection II*, SPIE Meeting, Los Angeles, CA, Jan. 15-19, 1989.

Chairman, *Symposium on Laser-Based Molecular Spectroscopy*, FACSS Meeting, Chicago, IL, October 1-5, 1989.

Co-Chairman, *ASTM Symposium on Spectroscopy and Fiberoptics*, Las Vegas, Nevada, April 30-31, 1990.

Co-Chairman, *Symposium on Laser-Based Molecular Spectroscopy*, FACSS Meeting, Cleveland, Ohio, October 7-12, 1990.

Program Committee Member: *IVth International Symposium on Quantitative Luminescence Spectrometry*, Ghent (Belgium), May 27-31, 1991.

Chairman, *Conference on Methods and Technologies for Environmental and Process Monitoring*, Los Angeles, California, Jan. 19-21, 1992.

Chairman, *Symposium on Optical Fiberoptics Sensors*, 1992 Pittsburgh Conference, March 17, 1992.

Chairman, *International Conference on Monitoring Toxic Chemicals and Biomarkers*, Berlin (Germany), June 22-25, 1992.

Honorary President, *International Symposium on Analytical Sciences*, Deauville (France), May 5-7, 1993.

Program Committee Member, *International Symposium on Polycyclic Aromatic Compounds*, Tan-Tara, Missouri, September 8-10, 1993.

Honorary President, *Second International Symposium of Analytical Sciences*, Montreux (Switzerland), May 16-19, 1994

Organizing Committee and Session Chairman, *Workshop on Biomedical Technology Opportunities*, Atlanta, Georgia, April 3-4, 1995.

Honorary President, *Third International Symposium of Analytical Sciences*, Paris (France) March 12-16, 1995.

Chairman, *International Conference of Environmental Monitors and Hazardous Waste Sites*, Munich (Germany), June 19-23, 1995.

Chairman, *Symposium on Chemical Sensors and Biosensors*, FACSS Meeting, Cincinnati, Ohio, October 15-18, 1995.

Co-Chairman, *Conference on Biomedical Sensing Imaging and Tracking*, San Jose, CA, January 30-31, 1996, 1997.

Chairman, *Conference on Advanced Environmental Monitoring Technologies*, Denver, CO, August 6-8, 1996.

Chairman, *Conference on Biomedical Diagnostic and Surgical Assist Systems*, San Jose, California, January 1998.

International Steering Committee Member, *EUROPTRODE IV*, International Conference on Optical Chemical Sensors and Biosensors, Munster (Germany), April, 1998

Chairman, *International Conference on Environmental and Remediation Technologies*, Boston, MA, November 1998.

General Chair of the *SPIE's International Symposium on Environmental and Industrial Sensing at Photonics East*, Boston, MA, November, 1998.

General Chair of the *SPIE's International Symposium on Environmental and Industrial Sensing* at Photonics East, Boston, MA, November, 1999.

Chairman, *Conference on Biomedical Diagnostic and Surgical Assist SystemsII*, San Jose, California, January 1999.

General Chairman of the *SPIE's International Symposium on Environmental and Industrial Sensing* at Photonics East, Boston, MA, November, 2000.

Chairman, *Conference on Biomedical Diagnostic and Surgical Assist SystemsIII*, San Jose, California, January 2000.

International Steering Committee Member, *EUROPTRODE V*, International Conference on Optical Chemical Sensors and Biosensors, Lyon (France), April, 2000

General Chairman of the *SPIE's International Symposium on Environmental and Industrial Sensing* at Photonics East, Boston, MA, November, 2000.

Chairman, *Conference on Biomedical Diagnostic and Surgical Assist Systems IV*, San Jose, California, January 2001.

Scientific Advisory Board, *Biochips 2001 Conference*, Brooklyn, NY, March, 2001.

General Chairman of the *International Symposium on Environmental and Industrial Sensing* at Photonics East 2002, Boston, MA, November, 2001.

Chairman, *Conference on Biomedical Diagnostic and Surgical Assist Systems V*, San Jose, California, January 2002

International Steering Committee Member, *EUROPTRODE VI*, International Conference on Optical Chemical Sensors and Biosensors, Manchester (United Kingdom), April, 2002

Steering Committee Member and Session Chair, National Institute of Health, Bioengineering Consortium, *NIH BECON Symposium on Sensors for Biology and Medicine*, Bethesda, MD, June 24-26, 2002

Chairman, *Conference on Biomedical Diagnostic and Surgical Assist Systems VI*, San Jose, California, January 25-27, 2003

International Program Committee Member, *ASIASENSE 2003*, Asian Conference on Sensors, Kuala Lumpur (Malaysia), July 14-18, 2003.

International Program Committee Member, *Colloquium Spectroscopicum Internationale XXXIII*, Granada (Spain), September 7-12, 2003

General Chairman, *Photonics East 2003*, Providence, RI, October 27-30, 2003.

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical System sIII*, San Jose, California, January 24-28, 2004

General Chairman, *Optics East 2004*, Philadelphia, PA, October 24-29, 2004.

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems II*, San Jose, California, January 22-24, 2005

Chairman, *Conference on Plasmonics in Biology and Medicine*, San Jose, California, January 22-24, 2005

Organization Committee Member, *CLEO/Europe 2005*, Biophotonics Topics, Munich (Germany), June 12-17, 2005

Organization Committee Member, *Conference on Advances on Optics for Biotechnology, Medicine and Surgery*, Copper Mountain, CO, July 24-28, 2005

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems IV*, San Jose, California, January 21-24, 2006

Chairman, *Conference on Plasmonics in Biology and Medicine*, San Jose, California, January 22-24, 2006

International Steering Committee Member, *EUROPTRODE VII*, International Conference on Optical Chemical Sensors and Biosensors, Tübingen (Germany) April, 2006

General Symposium Co-Chairman, *SPIE Optics East 2006 Symposium*, Boston, MA, October 1-4, 2006.

Chairman, *2006 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, September 28-29, 2006

Member of Board of Visitors, Army Research Organization (ARO), Electrooptics Division Program Review Meeting, Research Triangle Park, North Carolina, November 17, 2006.

International Advisory Committee Member, *Ninth International Conference on Optics Within Life Sciences*, National Yang-Ming University, Taipei (Taiwan), November 26-29, 2006

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems V*, San Jose, California, January 21-24, 2007

Chairman, *Conference on Plasmonics in Biology and Medicine*, San Jose, California, January 22-24, 2006

General Symposium Co-Chairman, *SPIE Optics East 2007 Symposium*, Boston, MA, September 9-12, 2007.

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems V*, San Jose, California, January 19-21, 2007

Chairman, *2007 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, October 11-12, 2007

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems VI*, San Jose, California, January 20-21, 2008

Chairman, *Conference on Plasmonics in Biology and Medicine V*, San Jose, California, January 22-23, 2008

International Steering Committee Member, *EUROPTRODE VIII*, International Conference on Optical Chemical Sensors and Biosensors, Dublin (Ireland), March 30-April 4, 2008

Co-Chair, *Symposium on Nanophotonics*, IEEE/LEOS Summer Topical Meetings, Acapulco (Mexico), July 21-23, 2008.

Chairman, *2008 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, October 13-14, 2008

Co-Chair, *Symposium on Bio-Inspired Materials: Principles and Applications*, Annual Meeting of the Materials Research Society, Boston, MA, December 1-4, 2008

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems VII*, San Jose, California, January 25-26, 2009

Chairman, *Conference on Plasmonics in Biology and Medicine VI*, San Jose, California, January 26-27, 2009

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies VI*, Orlando, Florida, April 13-14, 2009

International Program Committee Member, *Second Symposium on Topical Problems of Biophotonics*, Novgorod-Samara (Russia), July 19-24, 2009.

Chairman, *2009 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, October 6, 2009

International Steering Committee Member, *EUROPTRODE X, International Conference on Optical Chemical Sensors and Biosensors*, Prague (Tcheque Republic), March 28-31, 2010.

International Advisory Committee Member, *10th International Conference on Fiber Optics and Photonics, PHOTONICS 2010*, Guwahati (India), December 11-15, 2010

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems VIII*, San Jose, California, January 24-26, 2010

Chairman, *Conference on Plasmonics in Biology and Medicine VI*, San Jose, California, January 26-27, 2010

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies VI*, Orlando, Florida, April 2-3, 2010

Chairman, *2010 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, October 27-28, 2010

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems IX*, San Jose, California, January 22-24, 2011

Chairman, *Conference on Plasmonics in Biology and Medicine VIII*, San Jose, California, January 23-24, 2011

International Program Committee Member, SPIE Eco-Photonics Symposium, Strasbourg (France), March 28-31, 2011.

International Steering Committee Member, *EUROPTRODE XI, International Conference on Optical Chemical Sensors and Biosensors*, Barcelona (Spain), April 1-4, 2012.

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies VIII*, Baltimore, MD, April 25-26, 2011

Chairman, *2011 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, October 10-11, 2011

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems X*, San Jose, California, January 23-24, 2012

Chairman, *Conference on Plasmonics in Biology and Medicine IX*, San Jose, California, January 24-25, 2012

Chair, Session on Biomedical Applications of Plasmonics, *International Conference META 12*, Paris (France), April 18-22, 2012

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies IX*, Baltimore, MD, April 26-27, 2012

Member of the Scientific Advisory Board, *Biomedical Sciences and Engineering Center*, Oak Ridge National Laboratory (2012-present)

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems XI*, San Francisco, California, - February 2-5, 2013

Chairman, *Conference on Plasmonics in Biology and Medicine X*, San Francisco, California, February 2-5, 2013

Chairman, *2013 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, March 11-12, 2013

Member of the *US National Academies Panel on Sensors and Electron Devices*, US National Academies, (2011-present)

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems XII*, San Jose, California, February 1-2, 2014

Chairman, *Conference on Plasmonics in Biology and Medicine XI*, San Jose, California, February 2-3, 2014

Chairman, *2014 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, March 11-12, 2014

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies X*, Baltimore, MD, May 6-4, 2014

International Steering Committee Member, *EUROPTRODE XII, International Conference on Optical Chemical Sensors and Biosensors*, Athens (Greece), April 13-16, 2014.

Member of the Advisory Board of the *United Nations (UN) Committee on the 2015 International Year of Light (IYL2015)*, proclaimed by the UN General Assembly 68th Session, 2015.

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems XII*, San Jose, California, February 7-8, 2015

Chairman, *Conference on Plasmonics in Biology and Medicine XI*, San Jose, California, February 8-9, 2015

Chairman, *2015 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, March 9-10, 2015

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies X*, Baltimore, MD, April 20-12, 2015

International Scientific Committee Member, *Fiat Lux International Conference*, June 3-5, 2015, Rome (Italy)

Member Committee on Biophotonics, *European Photonics Industry Consortium (EPIC)*, (2105 to present)

Chairman, *2016 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, March 14-15, 2016

International Steering Committee Member, *EUROPTRODE XIII, International Conference on Optical Chemical Sensors and Biosensors*, Graz (Austria), March 20-26, 2016.

Scientific Committee Member, 14th Annual World Congress of Society for Brain Mapping and Therapeutics, Silicon Valley, California, March 30- April 1, 2017.

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems XV*, San Francisco, California, - February 13-18, 2017

Chairman, *Conference on Plasmonics in Biology and Medicine XIV*, San Francisco, California, February 13-18, 2017

Chairman, *2017 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, March 13-14, 2017

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies XIII*, Anaheim, CA, April 21-22, 2017

Chairman, *Conference on Advanced Biomedical Diagnostic and Clinical Systems XVI*, San Francisco, California, - January 29-30, 2018

Chairman, *Conference on Plasmonics in Biology and Medicine XIV*, San Francisco, California, January 29, 2018

Chairman, *2018 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, March 11-12, 2018

International Steering Committee Member, *EUROPTRODE XVI, International Conference on Optical Chemical Sensors and Biosensors*, Naples (Italy), March 25-28, 2018.

Chairman, *Conference on Plasmonics in Biology and Medicine XIV*, San Francisco, California, February 1-2, 2019

Chairman, *2019 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, March 11-12, 2019

Chairman, *Conference on Advanced Environmental, Chemical, and Biological Sensing Technologies XV*, Baltimore, Maryland, April 14-16, 2019

Chairman, *2020 Symposium on Frontiers in Photonics Science and Technology*, Fitzpatrick Institute of Photonics, Duke University, Durham, North Carolina, May 16, 2020

International Steering Committee Member, *EUROPTRODE XVII, International Conference on Optical Chemical Sensors and Biosensors*, Warsaw (Poland), November 28-December 1, 2021

### **TEACHING AND ACADEMIC-RELATED ACTIVITIES:**

R. Eugene and Susie E. Goodson Distinguished Professor of Biomedical Engineering and Professor of Chemistry, Duke University, Durham, North Carolina

Direct graduate research programs, develop and teach courses at the Department of Biomedical Engineering and Department of Chemistry, Duke University. The courses involve topics on “Advances in Photonics”, “Biosensors”, and “Analytical Chemistry” (2006-present).

Awarded the *Certificate of Excellence in Teaching*, Duke University, Pratt School of Engineering (2015).

Distinguished Visiting Professor, University of Florida, Gainesville, Florida

Invited Distinguished Visiting Professor at the Chemistry Department, University of Florida, Gainesville, FL, for the 2004 Spring Semester. Taught a series of lectures on “Advanced Biophotonics: A New Generation of Tools for Environmental and Biomedical Applications” and “Nanosensor Technologies”; conduct mentoring sessions with graduate students.

Professor (Adjunct Position) University of California – San Francisco (UCSF) Medical School

Co-direct research on in-vivo monitoring brain injury at the UCSF Department of Neurosurgery. The research deals with the development of a non-invasive diagnostic approach based on low-frequency ultra-sound and photoacoustic techniques (2000 - present).

Professor (Adjunct Position), University of Tennessee/Postdoctoral and Graduate Research Supervisor

Supervised, directed and co-directed M.S. and Ph.D. research projects for students and postdoctoral fellows at Oak Ridge National Laboratory and The University of Tennessee. Research topics deal with the development of novel analytical techniques for environmental studies, biochemical research. (1980 - present).

Visiting Professor, University of Rome, Italy

Invited Visiting Professor at the University of Rome “La Sapienza,” Rome, Italy in the 1999 Spring Semester; Taught a series of lectures on “Advanced Spectroscopic Techniques and Sensors for Environmental and Biomedical Applications.

Undergraduate Teaching:

Taught a General Physics Laboratory course for undergraduate students majoring in chemistry and physics at the Ecole Polytechnique Federale, Lausanne (EPFL). Topics included theory and experiments in general mechanics, optics, and thermodynamics (1968 - 1970).

Taught a General Physical Chemistry Laboratory course for undergraduate students majoring in chemistry and physics at the Swiss Federal Institute of Technology, Zurich (Switzerland). Topics included theory and experiments in general spectroscopy, thermodynamics, separation techniques, optics, and thermodynamics (1971-1975).

Directed Summer Student Research Projects for the Oak Ridge Associated University and for the Great Lakes Colleges Association. Research topics involved the development of new analytical methods for environmental and biomedical analysis (1980 - 2006).



Taught undergraduate and graduate courses on Biosensors and Advances in Photonics, Duke University (2007to present)

#### Graduate Teaching:

Currently teaching a course on Biosensors and a course on Advances in Photonics for graduate students and senior undergraduate students at Duke University (2006-present)

Taught a course on Biophysical Chemistry for students pursuing Ph.D. degree in biochemistry and biology at the Graduate School of Biomedical Sciences, University of Tennessee, Knoxville. Subjects included biophysical analytical and spectrochemical techniques for macromolecules: diffusion, sedimentation, electrophoresis, chromatography, molecular spectroscopies, X-ray and microscopy (1994 - 1999).

Taught an Introduction Course to Analytical Methods for students pursuing a postgraduate degree in analytical chemistry at the University of Florida, Off-campus Program in Jacksonville, Florida. Subjects included theory and practice for fluorescence, phosphorescence, ultraviolet, infrared and mass spectrometries (1975 - 1976).

Taught a General Physical Chemistry laboratory course for graduate students in natural life sciences at ETH, the Swiss Federal Institute of Technology in Zurich, Switzerland . Subjects included electrochemistry, infrared, luminescence spectrometries, and general thermodynamics (1971 - 1975).

Served on committees for developing teaching curriculum for the Graduate School of Biomedical Sciences and the Graduate School of Genomic Science and Technology at the University of Tennessee.

Taught undergraduate and graduate courses on Biosensors and Advances in Photonics, Duke University (2007to present)

#### American Chemical Society (ACS) Short Course

Developer and instructor of the ACS short course on "Spectroscopy for Chemical Analysis: Rapid Screening and Advanced Techniques." (1989 - 1991).

#### Special Field Program for High School Science and Mathematics and Biotechnology:

Directed special Summer Field Programs sponsored by Oak Ridge National Laboratory, aimed to improve the academic levels in high schools and to promote excellence in science and mathematics teaching in Tennessee (1987 - present).

Served on the Educational Committee, American Institute of Chemists, Tennessee Section, and initiated a Traveling Educational Videotape Showing Program ("The World of Chemists") for high school teachers to increase interest in science education (1989 - present).

Served on the Tennessee Department of Education Task Force to establish a new curriculum in Biotechnology for High School Education (1990).

#### Thesis Research Director of Graduate Students

Directed Ph.D. Research Projects for students in the Department of Biomedical Engineering and Department of Chemistry, Duke University (2006 - present).

Directed Ph.D. Research Projects for students in the Chemistry Department, the Graduate School of Biomedical Sciences, and the Graduate School of Genomic Science and Technology at the University of Tennessee Knoxville (1980 - present).

Number of PhD dissertations supervised: 4 (Duke University), 5 (ORNL/University of Tennessee, before jointing Duke)

#### Postdoctoral Associates Supervised

D. W. Abbott, A. Alak, L.R. Allain, J. Bello, S. Burrows, A. D. Campiglia, K. Chen, Y. F. Cheng, Z. Chi, M. Culha, B. M. Cullum, A. Dhawan, P. D. Enlow, A. Fales, N. Gandra, A. M. Helmenstine, D. M. Hueber, A. S. D. S. Indrasekara, N. Isola, R. Jagannathan , R. W. Johnson, D. A. Landis, B. Lauly, A. Leonardo, Q. Liu, Y. liu, J. Mobley, M. Morena-Bondi , V. A. Narayanan, A. Pal, T. Pal, G. Reddy, J. K. Register, J. Scaffidi, J.M. Song, C.

L. Stevenson, D. Stratis-Cullum, P. Strobbia, W. S. Sutherland, N. Taranenko, M. Wabuye, F. Yan, H. Yuan, Y. Zhang

### **PROFESSIONAL ASSOCIATION ACTIVITIES**

- President, *International Society on Polycyclic Aromatic Compounds (ISPAC)* (1991-1993)
- Chairman of *IUPAC Commission on V-4 on Spectrochemical and Other Optical Procedures for Analysis*, (1991-2000)
- Chairman, *ASTM Subcommittee on Fiberoptics*, E13.09 (1988 - 2003).
- Member of Task Forces and Field Evaluation Teams for various synfuel industrial sites: H-coal pilot plant, Catlettsburg, Kentucky; gasifier at the University of Minnesota, Duluth, Minnesota; coal liquefaction plant; Morgantown, West Virginia (1979 - 1983).
- Member of Committee on Biotechnology Program, Oak Ridge National Laboratory (1993).
- Secretary of Technical Committee TT-6 in Energy-Environmental Interactions, Member of Technical Committees TP-6 on Ambient Measurements, TT-7 on Indoor Air, and TT-9 on Air Toxics, Air Pollution Control Association (1984-89).
- Member of Technical Committee on Indoor Air Quality, American Industrial Hygiene Association (1985-1990).
- Member of the Board of Directors, Air Pollution Control Association, East Tennessee Chapter (1985-1988).
- Secretary/Treasurer, *American Institute of Chemists*, East Tennessee Section (1988-1992)

### **TECHNOLOGY TRANSFER AND INDUSTRY-RELATED ACTIVITIES**

Member of the Board of Directors: Biochem Tech, Inc.

Several technologies developed at ORNL by Dr. Vo-Dinh have been licensed and commercialized by private companies and technology start-ups:

- Environmental Systems Corporation: the fiberoptic luminoscope
- Gamma-Metrics, Inc.: the SERS Toxic Chemical Analyzer (TCA™)
- Serotech, Inc.: the SERODS Optical Data Storage System
- Gargantuan Storage Devices, Inc: SERODS
- Pioneer Surgical Inc.: Cancer diagnosis (gastrointestinal tracts)
- Optical Biopsy, LLC: Cancer diagnosis (cervical tracts)
- Spectra Diagnostics Inc.: Cancer diagnostics (gastro-intestinal tracts)
- IdentiChem. LLC: SERS for medical diagnostics
- HealthSpex, Inc.: Biochip for medical diagnostics
- ID Systems, LLC: Ramits technology for chemical, biological and medical sensing
- Nano Detection Technology (biochip technology for diagnostics)
- Immunolight, LLC (cancer nanotherapy)

Served as consultant and subcontracting services for: ARCO Products Company, Biochem Tech, Inc.; Eli Lilly; Environmental Systems Corporation; Jetalon Solutions, Inc.; Monsanto; Optical Biopsy; PEDCo Environmental, Inc.; Radian Corporation; Rockwell International, Rohm and Haas Company, Shell Company, Thompson Cancer Survival Center.

### **MEDIA/PRESS COVERAGE**

Dr. Vo-Dinh's research activities have been highlighted in a large number of reports and news articles from many national and international publications (*Science, Nature, New York Times, Wall Street Journal*), and radio and television shows. Television media coverage include:

- PBS Television: *Frontiers in Medicine* (biochip technology)
- CNN: *Technology Week* (rapid field spot test for PCBs and environmental pollutants)
- CNN: News laser optical biopsy for cancer diagnostics
- CNBC Television: *Profiles of America* (laser optical biopsy for cancer diagnostics)
- National Public Radio (NPR): SERODS optical data storage

### **CIVIC AND COMMUNITY ACTIVITIES:**

- Member of United Way Leadership Giving Program (2004-present)
- Tennessee Department of Education, Committee on Biotechnology Curriculum, 1990 - 1992
- Stage Committee, "Fantasy of Trees," Children's Hospital, Fund Raising Organization, 1989

- President, Vietnamese Association and Friends in East Tennessee, 1978-1979
- United Way Campaign Committee, ORNL, 1979
- Editor, Student Newsletter, "Culture and Technology," Zurich, Switzerland, 1970-1972.

**LANGUAGES:** Vietnamese  
 English  
 French  
 German  
 Spanish

**INVITED LECTURES, PLENARY LECTURES AND KEYNOTE ADDRESSES**

- 1976 First ORNL Workshop on Exposure to Polynuclear Aromatic Compounds, Oak Ridge National Laboratory
- 1977 Second ORNL Workshop on Exposure to Polynuclear Aromatic Compounds, Oak Ridge National Laboratory
- 1978 Ninth Material Research Symposium, Gaithersburg, Maryland, National Bureau of Standards  
 American Chemical Society Instrumentation Award Symposium, Anaheim, California  
 Symposium on the Industrial Hygiene Needs for the Coal and Oil Shale Industries, Brookhaven National Laboratory, Upton, New York
- 1979 Pacific Chemical Congress, Honolulu, Hawaii  
 Symposium on Recent Developments and Future Trends in Fluorescence Spectroscopy,  
 Pittsburgh Conference, Cleveland, Ohio  
 Wake-Forest University, Winston-Salem, North Carolina
- 1980 Second EPA Symposium on Process Measurements for Environmental Assessment, Atlanta, Georgia  
 Symposium on Instrumentation and Controls for Fossil Energy Processes, Virginia Beach, Virginia  
 Workshop on Portable Instrumentation for Health and Safety, Fallen Leaf Lake, California  
 Symposium on Luminescence Spectroscopy, Joint SE-SW American Chemical Society Meeting, New Orleans, Louisiana
- 1981 Annual Meeting of Instrument Society of America, St. Louis, Missouri  
 EPA National Symposium on Monitoring Hazardous Organic Pollutants in Air, Raleigh, North Carolina  
 Chemical Systems Laboratory, Aberdeen Proving Ground, Maryland  
 National Institutes of Occupational Safety and Health, Cincinnati, Ohio
- 1982 ASTM Symposium on New Directions in Molecular Luminescence, Atlantic City, New Jersey  
 Annual Technical Meeting of the Institute of Environmental Sciences, Atlanta, Georgia  
 EPA National Symposium on Recent Advances in Pollutants Monitoring of Ambient Air and Stationary Sources, Raleigh, North Carolina  
 Symposium on Identification and Analysis of Organic Pollutants in Air, Kansas City, Missouri  
 Honeywell, Inc., Clearwater, Florida  
 The University of Tennessee, Knoxville, Tennessee  
 Symposium on Advances in Fluorescence and Phosphorescence, New York, New York
- 1983 National Institutes of Occupational Safety and Health, Cincinnati, Ohio  
 U.S. Environmental Protection Agency, Environmental Systems Laboratory, Research Triangle Park, North Carolina  
 Harvard Workshop on Evaluation of Monitoring Equipment for Personal Exposure Assessment, Harvard University  
 Specialty Conference on Measurement and Monitoring of Non-Criteria Toxic Contaminants in Air, Chicago, Illinois

- 1984 Symposium on Recent Advances in Instrumentation and Analytical Methods for Ambient Gaseous Toxic Substances, San Francisco, California  
 Workshop on Occupational Health Research, Knoxville, Tennessee  
 International Chemical Congress, Honolulu, Hawaii  
 DOE Workshop on Portable Instrumentation and Dosimeter, Knoxville, Tennessee  
 University of Dijon, Dijon (France)  
 Laboratory of Physical Chemistry, ETH, Zurich (Switzerland)  
 Joint European Communities Research Center, Ispra, (Italy)  
 World Health Organization, Geneva, (Switzerland)  
 University of Stockholm, Stockholm, (Sweden)
- 1985 Symposium on Analytical Chemistry of Nitrated Polynuclear Aromatic Compounds, Miami, Florida  
 Chemical Research and Development Center, Aberdeen Proving Ground, Maryland  
 Symposium on Indoor/Outdoor Air Pollution Relationships, West Long Branch, New Jersey  
 U.S. Environmental Protection Agency, EMSL, Las Vegas, Nevada  
 Workshop on Polycyclic Aromatic Database, Oak Ridge, Tennessee  
 Air Pollution Control Association Annual Meeting, Detroit, Michigan  
 Scientific Conference on Chemical Defense Research, Edgewood, Maryland
- 1986 National Cancer Institute, Bethesda, Maryland  
 Symposium on Chemical Basis for Toxicological Response to Synthetic Fuels, ACS Meeting, New York  
 Symposium on Measurements of Toxic Air Pollutants, Research Triangle Park, North Carolina  
 Air Pollution Control Association Annual Meeting, Minneapolis, Minnesota  
 Eli Lilly Research Center, Indianapolis, Indiana  
 Workshop on Recent Advances in Monitoring Techniques for DNA-Adducts, Washington, DC  
 Symposium on Advances in Raman Spectroscopy, FACS Meeting, St. Louis, Missouri  
 National Bureau of Standards, Gaithersburg, Maryland
- 1987 Vanderbilt University, Nashville, Tennessee - February, 1987  
 Marquette University, Milwaukee, Wisconsin - March 6, 1987  
 American Industrial Hygiene Meeting, Montreal (Canada) - May 31-June 6, 1987  
 Colloquium Spectroscopicum Internationale, Toronto (Canada) - June 21-26, 1987  
 American Chemical Society Annual Meeting, New Orleans, Louisiana, Aug 31-Sept. 4, 1987  
 Symposium on Microphase Luminescence Spectroscopy, FACS Meeting, Detroit, Michigan, Oct. 5-8, 1987  
 National Institute of Occupational Safety and Health, Cincinnati, Ohio - July 16, 1987  
 International Symposium on Polyaromatic Hydrocarbons, Gaithersburg, Maryland, Sept. 23-25, 1987
- 1988 Symposium on Laser Spectroscopy, SPIE's OE/LASE 88, Los Angeles, California, Jan. 10-15, 1988  
 Emory University, Atlanta, Georgia - Feb. 2, 1988  
 Association for the Advancement on Medical Instrumentation Annual Meeting, Washington, D.C., May 15-18, 1988  
 International Laser Science Conference, Atlanta, Georgia - Oct. 2-4, 1988  
 Eastern Analytical Symposium, New York - Oct. 3-6, 1988  
 FACS Meeting, Boston, Massachusetts - Oct. 30 - Nov. 4, 1988  
 International Symposium on Screening Techniques, Las Vegas, Nevada - Oct. 9-13, 1988  
 NRC Workshop on Advances in Assessing Human Exposure to Airborne Pollutants, Yale University - Oct. 19-20, 1988
- 1989 Conference on Fluorescence Detection III, SPIE Meeting, Los Angeles, CA, Jan. 15-19, 1989  
 ASTM Subcommittee on Fiber Optics Meeting, Atlanta, GA, March 7, 1989  
 State University of New York, Buffalo, NY, March 21, 1989.  
 International Course on Laser Spectroscopy, Malaga (Spain) May 22, 1989  
 University of Perpignan, Perpignan (France) May 29, 1989.  
 OE/SPIE Fiber's '89 Conference, Boston, MA, Sept. 5-8, 1989  
 International Symposium Polyaromatic Hydrocarbon, Gaithersburg, MD, Sept. 18-21, 1989  
 IUPAC International Conference, Lund (Sweden) August 11, 1989  
 German Environmental and Radiation Protection Agency (GSF), Munich (Germany), Aug. 16, 1989  
 Symposium on Laser-Based Molecular Spectroscopy, FACSS Meeting, Chicago, IL, Oct. 1-5, 1989  
 Rutgers University, Dec. 12, 1989.  
 Pacific Conference, Honolulu, Hawaii, December 18-21, 1989.

- 1990 Department of Defense, Washington, DC, February 8, 1990  
 AAAS Press Conference, New Orleans, Louisiana, February 16, 1990  
 ASTM Symposium on Spectroscopy and Fiberoptics, Las Vegas, Nevada, March 30, 1990  
 University of Perpignan, Perpignan (France) June 15, 1990  
 SPIE Conference on Raman and Luminescence, San Diego, California, July 8-12, 1990  
 Shell Research Laboratories, Houston, Texas, September 11, 1990  
 OE/SPIE Fibers 90 Conference, San Jose, California, September 16-21, 1990  
 Symposium on Molecular Spectroscopy, FACSS Meeting, Cleveland, Ohio, October 7-12
- 1991 OE/LASE SPIE Conference in Laser Trace Detection Technique, Los Angeles, California, Jan 19-25, 1991  
 GammaMetrics, Inc., San Diego, California, Jan 24, 1991  
 US Environmental Pollution Agency, Las Vegas, Nevada, February 25-27, 1991  
 Pittsburgh Conference, Chicago, Illinois, March 3-7, 1991  
 ACS Annual Meeting, Atlanta, Georgia, April 14-18, 1991.  
 IUPAC General Assembly Meeting, Hamburg (Germany), August 5-8, 1991  
 International Symposium on Polyaromatic Hydrocarbons, Bordeaux (France), October 1-4, 1991  
 Iowa State University, DeMoines, Iowa, October 24, 1991  
 Florida State University, Tallahassee, Florida, October 1, 1991  
 Eastern Analytical Symposium, Somerset, New Jersey, November 12, 1991
- 1992 SPIE Conference on Environmental and Process Control Monitoring Technologies, Technologies, Los Angeles, California, January 20-23, 1992  
 Symposium on Optical Fiber-Optic Sensors, Pittsburgh Conference, New Orleans, Louisiana, March 11, 1992  
 International Conference on Monitoring Toxic Chemicals and Biomarkers, Berlin (Germany), June 22-25, 1992  
 Technical University of Munich, Munich (Germany), June 21, 1992  
 EC Research Center, Ispra (Italy), June 29, 1992  
 General Electric Research Center, Schenectedy, New York, August 31, 1992  
 Spectroscopic Methods of Analysis Symposium, San Antonio, Texas, November 15, 1992  
 First International Congress of Medicine in the Oil Industry, Mexico City (Mexico), December 3-5, 1992
- 1993 Rohm and Hass Company, Philadelphia, Pennsylvania, April 14, 1993  
 Symposium of Analytical Sciences, Deauville (France), May 5, 1993  
 Harvard University, June 29, 1993  
 Massachusetts Institute of Technology, June 30, 1993  
 IUPAC General Assembly Meeting, Lisbon (Portugal), August 3-9, 1993  
 Annual FACSS Meeting, Detroit, Michigan, October 19, 1993  
 International Symposium on Polycyclic Aromatic Compounds, Tan-Tar, Missouri, September 9, 1993  
 Mire Corporation, JASON Meeting, La Hoya, California, July 9, 1993
- 1994 Symposium on Advances in Luminescence Spectroscopy, 1994, Pittsburgh Conference, Chicago, Illinois, March 3, 1994  
 Second European Symposium on Optical Chemical and Biosensors, Florence (Italy), April 20, 1994  
 University of Rome – La Sapienza, Department of Chemistry, Rome, Italy, April 25, 1994  
 Center for Chemical Sensors, University of Rome – Tor Vergata, Rome (Italy), April 26, 1994  
 Conference on Solid-State Memory Technologies, Pasadena, California, May 24, 1994  
 FACSS Analytical Symposium, Detroit, Michigan, October 4, 1994  
 Eastern Analytical Symposium, Sommerset, New Jersey, November 11, 1994
- 1995 Conference on Laser Techniques for Diagnosis of Cancer and Other Diseases, San Jose, California, February 7-9, 1995.  
 WATTEC Conference on Energy, Knoxville, Tennessee, February 21, 1995

- Biomedical Technology Opportunities: A Workshop, Atlanta, Georgia, April 3-4, 1995  
 Conference on Analytical Instrumentation, Madrid (Spain), April 5-7, 1995  
 Meeting on Photonics Technology Transfer Program, Orlando, Florida, April 24, 1995  
 International Conference on Environmental Monitors and Hazardous Waste, Munich (Germany), June 19-21, 1995  
 IUPAC General Assembly, Guilford (United Kingdom), August 4-11, 1995  
 Conference of the Optical Society of America, Portland, Oregon, September 10-14, 1995  
 Annual FACSS Meeting, Cincinnati, Ohio, October 15-18, 1995
- 1996 Conference on Biomedical Sensing, Imaging and Tracking Technologies, San Jose, January 30-31, 1996  
 Conference of the Optical Society of America, Orlando, FL, March 20-22, 1996  
 Eurotrode Conference, Zurich (Switzerland), April 2-4, 1996  
 Conference on Aerosol Obscuration, Edgewood, MD, June 25-27, 1996  
 Conference on Advanced Environmental Monitoring Technologies, Denver, CO, August 6-8, 1996  
 International Conference on Raman Spectroscopy, Pittsburgh, PA, August 12-15, 1996  
 First Workshop on AOTF, University of Maryland, College Park, MD, September 24-25, 1996  
 Annual FACSS Meeting, Chicago, October 1-3, 1996
- 1997 Conference in Biomedical Sensing, Imaging and Tracking Technologies, San Jose, CA, February 10-12, 1997.  
 New York Academy of Sciences Conference on Optical Biopsy, New York, April 23-25, 1997.  
 NCI Conference on Breast Cancer, Washington, DC, May 1-2, 1997.  
 Advanced Technology for Trauma Care Conference, Ft. Walton Beach, FL, May 19-20, 1997.  
 EPA International symposium on analytical chemistry, Jekyll Island, GA, June 15-18, 1997.  
 American Society for Photobiology, St. Louis, MO, July 7-10, 1997.  
 Swiss Federal Institute of Technology, Zurich (Switzerland), September 1, 1997.  
 Symposium on Optical Sensors, Optical Society of America, Oct. 12-17, 1997, Long Beach, CA  
 Lester Wolfe Workshop in Laser and Medicine, MIT, Cambridge, MA, Oct. 31, 1997  
 Federal Multi-Agency Consortium on Imaging Technologies to Improve Women's Health, Washington, DC, Oct. 24, 1997  
 Annual FACSS Meeting, Providence, Rhode Island, October 29, 1997  
 Workshop on Measurement Issues for Nanometer Particles, Minneapolis, MN, Dec. 5-7, 1997
- 1998 Conference on Biomedical Sensing, Imaging and Tracking Technologies, San Jose, CA, Jan. 26-19, 1998  
 University of Tübingen, Tübingen (Germany), March 24, 1998, International Symposium on Analytical Chemistry, Dusseldorf (Germany), March 26, 1998  
 University of Hannover, Hannover (Germany), March 27, 1998  
 Eurotrode Conference, Münster (Germany), April 1, 1998  
 HCI Conference, RNA/DNA Diagnostics, Washington, DC, May 19-21, 1998  
 National Institute of Occupational Health, Morgantown, West Virginia, July 22, 1998  
 Philip Morris, Richmond, Virginia, August 20, 1998.  
 Indiana University, Bloomington, Indiana, September 3, 1998
- 1999 Vanderbilt University, Nashville, Tennessee, March 1, 1999  
 Pittsburgh Conference, Orlando, Florida, March 8, 1999  
 GOMAC/HEART Conference, Monterey, California, March 9, 1999  
 University of Rome "La Sapienza," Rome (Italy), March 29-April 2, 1999  
 Virginia Commonwealth University, Richmond, Virginia, Annual Meeting of SPIE, Denver, Colorado, July 22, 1999  
 Colloquium Spectroscopicum Internationale, Ankara (Turkey), September 5-10, 1999  
 FACSS Meeting, Vancouver (Canada), October 26, 1999
- 2000 US Department of Agriculture, Athens, GA, March 21, 2000  
 University of South Carolina, March 31, 2000 (Weissman Lecture in Analytical Chemistry)  
 Eurotrode Conference, Lyon, (France), April 17, 2000 (Plenary Lecture)

- National Institute of Agronomy, University of Paris, Paris (France), April 21, 2000  
 Workshop on Advances in Optical Imaging for Biomedical Applications, Berlin, Germany,  
 June 16, 2000  
 NIH Conference of Nanotechnology, Washington, DC, June 25-26, 2001
- 2001 Annual Meeting of Electrochemical Society, Washington, DC, March 23-25, 2001  
 Biochip 2001 Conference, New York, March 12, 2001  
 NCI Workshop on Probing Individual Cells, Washington, DC, March 13-14, 2001  
 BioInnova Conference, Montreal (Canada), March 14-15, 2001  
 Annual Meeting of American Chemical Society, April 3, 2001  
 HCI Conference on Microarrays, Macroresults, Boston, April 23, 2001  
 Harvard University, CIMIT Lecture, April 24, 2001  
 HCI Conference on Arrays and Molecular Labels, Washington, DC, May 17, 2001  
 SPIE Environmental and Industrial Sensing Symposium, Boston, MA, October 28-31, 2001
- 2002 Conference Biomedical Diagnostic, Guidance and Surgical Assist Systems, San Jose, Jan. 2002  
 Conference on BeO Monitoring, Santa Fe, NM, February 12-14, 2002  
 Biochips Conference, Washington DC, MARCH 18-20, 2002  
 Eurotrode VI Conference, Manchester (United Kingdom) April 7-10, 2001  
 Institute of Agronomy, Paris (France), April 12, 2002  
 BECON Symposium on Sensors for Medical Applications, Washington DC, June 24-26, 2002  
 Gordon Conference on Lasers in Biology and Medicine, July 14-17, 2002  
 HCI Conference on Biomems and Nanotechnology, Columbus, September 6-7, 2002  
 Nanotechnology Symposium 2002, Nakazawa (Japan), Sep 12-15, 2002  
 University of Kyoto, Kyoto, September 17, 2002  
 Japan Advanced Institute of Science and Technology, Tokyo (Japan) September 20, 2002  
 FACCS Annual Conference on Analytical Chemistry, Providence, RI, October 14, 2002  
 SPIE Conference on Homeland Defense, Washington DC, Dec 10-12, 2002
- 2003 Conference on Biomedical and Clinical Diagnostic, San Jose, CA, January 27-28, 2003  
 University of Tennessee, Memphis, Tennessee, June 10, 2003  
 BIOCHIPS 2003, Boston, MA, June 12, 2003 (Plenary Lecture)  
 Stanford Photonics Workshop, Stanford University, CA, July 7-8, 2003  
 DARPA Workshop on Biosensors, California Institute of Technology, July 23, 2003  
 IGERT Photonics Research Center, SUNY Buffalo, July 25, 2003  
 World Congress on Biomedical Physics and Bioengineering, Sydney (Australia), August 24-29, 2003.  
 University of New South Wales, Sydney (Australia), September 2, 2003.  
 International Symposium on NanoBiotechnology: a Systems Approach, Okinawa (Japan), Oct. 12-17,  
 2003  
 SPIE Photonics East 2003, Providence, RI, Oct 26-29, 2003.  
 Cedars-Sinai Medical Center, Los Angeles, CA, November 11-12, 2003.  
 International Semiconductor Devices Research Symposium, Washington DC, Dec 10-12, 2003.
- 2004 University of Florida, Distinguished Visiting Professor Lectures, University of Florida, Department of  
 Chemistry, Spring Semester 2004, January 14-16, 2004  
 Conference on Advanced Biomedical Diagnostic and Clinical Systems II, San Jose, Jan. 25-29, 2004.  
 Conference on Plasmonics in Biology and Medicine I, San Jose, January 25-29, 2004  
 First International Symposium on Micro & Nano Technology, March 14-17, Honolulu, HI (Keynote  
 Lecture)  
 Eurotrode Conference, Madrid, Spain, April 5-8, Session Chair  
 Experimental Biology 2004, Washington DC, April 17-21, 2004  
 Stanford University, Palo Alto, CA, April 28, 2004  
 NATO-ASCOS 2004 International School of Quantum Electronics, Erice, Italy, July 30-Aug. 7, 2004  
 NATO Advanced Study Meeting, Ottawa, Canada, September 30, 2004  
 Optics East 2004, Philadelphia, PA, Oct. 24-27, 2004  
 Nanomaterials 2004 Conference, Stamford, CT, October 27, 2004

- Wake Forest University, November 17, 2004  
 2<sup>nd</sup> Asian & Pacific Rim Symposium on Biophotonics, December 15-17, Taipei (Taiwan), (Plenary Keynote)
- 2005 Conference on Advanced Biomedical Diagnostic and Clinical Systems III, San Jose, January 22-24, 2005  
 Conference on Plasmonics in Biology and Medicine II, San Jose, January 22-24, 2005  
 Penn State University, College Station, PA, April 14, 2005  
 University of Virginia, Blacksburg, VA, April 15, 2005  
 International Conference on Coherent and Nonlinear Optics/International conference on Lasers, Applications, and Technologies (ICONO/LAT), St. Petersburg (Russia), May 11-15, 2005 (Keynote Lecture)  
 Third International conference on Materials for Advanced Technologies (ICMAT 2005), Singapore, July 3-8, 2005  
 DARPA Workshop on SERS and Nanoparticles, San Francisco, CA, July 29, 2005  
 Targeted Nanodelivery for Therapeutics and Molecular Imaging, Washington DC, August 22-23, 2005
- 2006 US-Indo Conference on Spectroscopy for National Security Application, Benares (India), Jan. 9-11, 2006  
 Conference on Advanced Biomedical Diagnostic and Clinical Systems IV, San Jose, January 21-23, 2006  
 Conference on Plasmonics in Biology and Medicine III, San Jose, January 22-23, 2006  
 DARPA Workshop on SERS Chem/Bio Sensors for Defense, Colorado Springs, CO, April 11-12, 2006  
 Nanotechnology Applications in Environmental Health Workshop, Raleigh, NC, April 20, 2006 (Keynote Lecture)  
 NIESH Exposure Biology Workshop, Greensboro, NC, May 16-17, 2006  
 Annual Meeting of the American Chemical Society, San Francisco, CA, September 10-14, 2006  
 SPIE Optics East Symposium, Boston, MA, October 1-3, 2006
- 2007 Conference on Advanced Biomedical Diagnostic and Clinical Systems V, San Jose, CA, Jan.21-22, 2007  
 Conference on Plasmonics in Biology and Medicine IV, San Jose, CA, January 22-23, 2007  
 Pittsburgh Conference, Chicago, IL, February 25-27, 2007  
 Conference on Nanoscale Physics and Technology: the Interface with Medical and Biological Sciences, Univ. of Southampton, March 26-27, Southampton, United Kingdom-(Plenary Lecture)  
 Metropolitan Museum of Art, New York, NY, May 18, 2007  
 Engineering Conference International, Naples, FL, June 12-14, 2007  
 Hunter Chair Distinguished Lecture, Clemson University, November 30, 2007  
 Distinguished Lecture, Purdue University, December 5, 2007  
 Conference on Nanotechnology in Biology and Medicine, (Paris France), December 14, 2007
- 2008 Conference on Advanced Biomedical Diagnostic and Clinical Systems VI, San Jose, January 20-21, 2008  
 Conference on Plasmonics in Biology and Medicine V, San Jose, January 21-22, 2008  
 Pittsburgh Conference, New Orleans, LA, March 6-7, 2008  
 Spring Meeting of the Material Research Society, San Francisco, CA, March 24-28, 2008  
 Founders Lecture, Vanderbilt University, Nashville, TN, April 25, 2008  
 Meeting of the IEEE Laser Electro-Optics Society, Acapulco, (Mexico), July 20-24, 2008  
 Annual Meeting of the European Optical Society, Paris (France), Sep. 28-Oct. 3, 2008  
 Meeting of the IEEE Laser Electro-Optics Society, Newport Beach, CA, Sep 9-12, 2008  
 Fall Meeting of the Material Research Society, Boston, MA, Dec. 2-5, 2008
- 2009 Conference on Advanced Biomedical Diagnostic and Clinical Systems VII, San Jose, Jan. 25-29, 2009  
 Conference on Plasmonics in Biology and Medicine VI, San Jose, January 26-27, 2009  
 ORNL Conference on Biomedical Technology, Oak Ridge, TN, March 19-20, 2010  
 DARPA Microsystems Technology Office (MTO) Nano workshop, Sunriver, OR, July 7, 2010  
 Columbia University, Department of Radiology, July 15, 2010  
 Elcan Optical Technologies, Toronto, Canada, July 21-22, 2010  
 2009 SouthEastern Optical Conference, Durham, North Carolina, December 15, 2010-(Plenary Lecture)
- 2010 Conference on Advanced Biomedical Diagnostic and Clinical Systems VIII, San Jose, Jan. 24-25, 2010  
 Conference on Plasmonics in Biology and Medicine VII, San Jose, January 25-26, 2010



- Metropolitan Biophotonics Symposium 2010. Washington DC, March 22, 2010, (Keynote Lecture)  
 Ophthalmology Technology Day, GlaxoSmithKline, September 21, 2010  
 International conference on biophotonics 2, Quebec City (Canada), Sep 25-25, 2010  
 FACCS Annual Meeting, Raleigh, Oct 17021, 2010  
 Pacifichem 2010 Congress, Honolulu, HI, December, 14-21, 2010
- 2011 Conference on Advanced Biomedical Diagnostic and Clinical Systems IX, San Francisco, CA, Jan. 23-25, 2011  
 Conference on Plasmonics in Biology and Medicine VIII, San Francisco, CA, January 24-26, 2011  
 AAAS Annual Meeting, Symposium on Lasers in Surgery, Regenerative Medicine and Medical Device Fabrication , Washington DC, February 19, 2011  
 NC Nanotechnology Commercialization Conference, Charlotte, NC, March 29-30, 2011  
 SPIE Conference on Optics & Electronics, Prague (Czech Republic), April 18-20, 2011  
 International Topical meeting on Information Photonics, Ottawa (Canada), May 18-20, 2011  
 ACS Award Symposium, ACS Analytical Chemistry Division, Denver, CO, August 28-29, 2011  
 Seoul National University. Seoul (South Korea), November 7, 2011  
 5th IEEE international Conference on Nano/Molecular Medicine and Engineering (IEEE-NANOMED 2011), Jeju Island, December 9-12, 2011 (Plenary Lecture)
- 2012 Conference on Advanced Biomedical Diagnostic and Clinical Systems X, San Francisco, California, January 23-24, 2012  
 Conference on Plasmonics in Biology and Medicine IX, San Francisco, California, January 24-25, 2012  
 The Pennsylvania State University, Penn State Distinguished Lecture Series in the Life Science, March 2, 2012 (Distinguished Lecture)  
 University of Pennsylvania, Advanced in Biomedical Optics Distinguished Lecture Series, April 2, 2012 (Distinguished Lecture)  
 Biosensors & Bioelectronics- 2012 International Conference, Las Vegas, NV, May 14-16, 2012 (Keynote Lecture)  
 International Conference META 12, Paris (France), April 18-22, 2012  
 22<sup>nd</sup> International Conference on Optical Fiber Sensors-OFS-22, Beijing, China, October 15-19, 2012 (Plenary Lecture)  
 Shanghai Jiao Tong University, Shanghai (China) October 19, 2012
- 2013 Conference on Advanced Biomedical Diagnostic and Clinical Systems XI, San Francisco, California, February 2-5, 2013  
 Conference on Plasmonics in Biology and Medicine X, San Francisco, California, February 2-5, 2013  
 Florida International University, Miami Florida, June 3, 2013 (Distinguished Lecture)  
 2013 Material Research Society Fall Meeting, Boston, MA, December 1-3, 2013
- 2014 Conference on Advanced Biomedical Diagnostic and Clinical Systems XII, San Francisco, California, - February 1-2, 2014  
 Conference on Plasmonics in Biology and Medicine XI, San Francisco, California, February 2-3, 2014  
 5th International Conference on Biomedical Engineering in Vietnam, Ho Chi Minh City, Vietnam, June 16-18, 2014 (Plenary Speaker)  
 University of Montreal, Montreal, Canada, Sep. 12, 2014
- 2015 Conference on Advanced Biomedical Diagnostic and Clinical Systems XIII, San Francisco, California, - February 7-8, 2015  
 Conference on Plasmonics in Biology and Medicine XII, San Francisco, California, February 8-9, 2015  
 2015 Pittcon Conference, March 8 – 12, New Orleans, LA  
 IPA 2015 / SPIE Biophotonics South America, Rio de Janeiro, Brazil, May 22 - May 26, 2015 (Plenary Speaker)  
 2015 SCix 2015 Conference, Rhode Island, September 27- October 5, 2015.  
 Institut Langevin, ESCPI ParisTech, Paris, France, October 26, 2015
- 2016 Conference on Advanced Biomedical Diagnostic and Clinical Systems XIV, San Francisco, California, - February 13-18, 2016

- Conference on Plasmonics in Biology and Medicine XIII, San Francisco, California, February 13-18, 2016
- DOE Genomic Science Program (GSP)-PI meeting, Washington DC, March 6-8, 2016 (invited Lecture)
- University of Washington, Seattle, WA, April 25-26, 2016 (Invited Lecture)
- Annual Symposium Personalized Nanomedicine, Miami, May-19-20, 2016 (Invited Lecture)
- DOE Bioimaging Science Program Annual PI Meeting, Washington DC, August 2-3, 2016, Gaithersburg, MD (Plenary Lecture)
- Biological Systems Science Division (BSSD) Integration Workshop, Rockville, MD, September 21-23, 2016 (Plenary Lecture)
- Euro-Global Summit on Toxicology and Applied Pharmacology, Rome (Italy), October 24-26, 2016 (Keynote Lecture)
- 2nd Global Nanotechnology Congress (Nanotechnology-2016) Las Vegas, USA, December 01-03, 2016 (Keynote Lecture)
- 2017 Conference on Advanced Biomedical Diagnostic and Clinical Systems XIV, San Francisco, California, - January 28-30, 2017
- Conference on Plasmonics in Biology and Medicine XIV, San Francisco, California, January 29-30, 2017
- DOE Genomic Science Program (GSP)-PI meeting, Washington DC, February 5-8, 2017 (invited Lecture)
- 14th Annual World Brain Mapping of SBMT, Los Angeles, April 18-20, 2017 (Invited Lecture)
- 2nd International Conference on Bioscience, June 19-20, 2017 London, UK (Keynote Lecture)
- Conference on Cancer Pharmacology Research, December 13-16, 2017 in New York, NY (Plenary Lecture)
- 2018 Conference on Advanced Biomedical Diagnostic and Clinical Systems XV, San Francisco, California, - January 29-30, 2018
- Conference on Plasmonics in Biology and Medicine XV, San Francisco, California, January 29, 2018
- DOE Genomic Science Program (GSP)-PI meeting, Washington DC, February 28, 2018 (Plenary Lecture)
- Europt(r)ode XIV, International Conference on Optical Chemical Sensors and Biosensors, Naples (Italy) March 25-28, 2018, Naples
- United Nations *International of Day* Inaugural Ceremony, UNESCO Headquarters, Paris (France), May 16, 2018 (Invited Address)
- Fourth International Conference on Bioinspired and Bio-based Chemistry and Materials, Nice (France), October 14-17, 2018 (Keynote Lecture)
- 2019 SPIE-BIOS Symposium, Track Chair on Clinical Technologies and Systems, San Francisco, California, 2–6 February 2019
- Conference on Plasmonics in Biology and Medicine XVI, San Francisco, California, 3–5 February 2019
- EuroCMR 2019 Congress, European Assoc. of Cardiovascular Imaging, Venice (Italy), May 1-4, 2019
- Congress OSA Sensors and Sensing Congress, San Jose, California, 25-27 June 2019 (Invited Tutorial Lecture)
- 5th World Congress on Cancer Research & Therapy”, London (United Kingdom), September 09-11, 2019 (Keynote Lecture)
- Sir George Stokes Award Lecture*, King’s College, London (United Kingdom), October 14, 2019

In addition to the above invited talks, keynotes, and plenary lectures, Dr. Vo-Dinh and his research group have presented over additional 200 contributed papers at national and international conferences.

## TUAN VO-DINH

### PUBLICATIONS LIST:

#### **A. Peer-Reviewed Journals and Invited Book Chapters:**

1. T. Vo-Dinh, R. Paetzold, and U. P. Wild,  
"Phosphorescence Spectra and Lifetimes of 1, 4-Naphthoquinones, Vitamin K3 and K1," Z. Phys. Chemie, 251: 395 (1972).
2. T. Vo-Dinh and U. P. Wild,  
"High Resolution Luminescence Spectrometer: 1. Simultaneous Recording of Total Luminescence and Phosphorescence," Applied Optics 12: 1286 (1973).
3. T. Vo-Dinh and U. P. Wild,  
"Laser-Excited Luminescence of Coronene in a Shpolskii Matrix," Journal of Luminescence 6: 296 (1973).
4. T. Vo-Dinh and U. P. Wild,  
"Fluoreszenz and Phosphoreszenzspektren in Shpolskii Matrizen," Chimia, 28 (1): 18 (1974).
5. T. Vo-Dinh, U. T. Kreichbich, and U. P. Wild,  
"Phosphorescence Spectra from Selected Sites in N-ethylcarbazole in N-Alkanes," Chem. Phys. Lett., 24: 352 (1974).
6. T. Vo-Dinh and U. P. Wild,  
"High Resolution Luminescence Spectrometer: 2. Data Treatment and Corrected Spectra," Applied Optics, 13: 2899 (1974).
7. T. Vo-Dinh, U. P. Wild, M. Lamotte, and A. M. Merle,  
"Quasilinear Fluorescence of Pyrene in a Monocrystalline Matrix," Chem. Phys. Lett., 39: 118 (1976).
8. T. Vo-Dinh, E. Lueyen, and J. D. Winefordner,  
"Heavy-Atom Effect on Room Temperature Phosphorimetry," Anal. Chem., 48: 1186 (1976).
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**D. REPORTS, PROCEEDINGS, NON PEER-REVIEWED PAPERS**

In addition to the above publications in peer-reviewed journals, Dr. Vo-Dinh has authored and co-authored over 300 symposium proceedings papers and technical reports.

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Dr. Vo-Dinh holds 58 US and international patents and has 5 patents pending.

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