

CURRICULUM VITAE

Gerdenis Kodis

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- Versatile scientist with a strong background in the physical sciences and laser spectroscopy.
- 100+ peer-reviewed publications (h-index 41).

PROFESSIONAL EXPERIENCE

ARIZONA STATE UNIVERSITY (ASU), Tempe, Arizona, U.S.A.

2022 - Present **Emeritus Professor**

2001 - 2022 **Research Faculty**

- Conducted fundamental research in molecular photonics, artificial photosynthesis, catalysis, biophysics, and optical and X-ray spectroscopy, **at the Department of Physics Center for Biological Physics, the School of Molecular Sciences Center for Bio-Inspired Solar Fuel Production, and the Biodesign Institute Center for Applied Structural Discovery.**
- Managed laser flash photolysis laboratory, mentors postdocs and students.
- Participated in everyday operations (experiment setup, data analysis, systems maintenance, user advice and training, new apparatus development, etc.) of the ASU Core Ultra-Fast Laser Facility.
- Studies mainly focused on photoinduced energy/electron/proton transfer in model organic molecular systems (composed of various peptides, porphines, carotenoids, fullerenes, dyes and photochromes, DNA origami, etc.) in various media (solutions, polymers, micelles, liposomes, thin films, proteins, etc.) and at interfaces (with ITO, TiO₂, SnO₂, Cu₅Ta₁₁O₃₀, SiO₂, various metal nanoparticles, etc.).
- Many fundamentally interesting processes have been investigated: energy transfer through bond vs. through space, various excited states interactions and dynamics, electron transfer dynamics in the normal vs. inverted Marcus region, step-wise vs. concerted proton-coupled electron transfer, charge migration in organic polymers, conformational dynamics and binding kinetics in proteins, etc.
- Used obtained knowledge to build molecular photonic devices, AND/OR gates and more complicated systems, such as half-adders, 'triode' signal transducers, photoelectrochemical biofuel cells, etc.
- Recent research efforts have been focused on a project to study intrinsically disordered proteins, how their sequences enable different conformations and effect binding properties.

INSTITUTE OF PHYSICS, Vilnius, Lithuania

1995 - 1999 **Graduate Research Assistant**

1993 - 1995 **Junior Staff Scientist**

- Engineered and built ultrafast high-power (Nd:YAG, Nd:glass) laser systems (later commercialized by [Light Conversion](#) and Ekspla), transient absorption and fluorescence spectrometers with applications to spectroscopy of molecular compounds in solutions, films and crystals.
- Research mainly focused on excited states in polar donor-acceptor molecules and their films and crystals. Studies revealed twisted intramolecular charge transfer in solutions, free and self-trapped charge-transfer excitons in films and crystals, and other interesting phenomena, such as anti-stokes luminescence, two-photon absorption, exciton annihilation and polaron formation.

FREE UNIVERSITY OF AMSTERDAM, Netherlands, POLYTECHNIC UNIVERSITY OF MILAN, Italy, LUND UNIVERSITY, Sweden

1999 - 2003 **Visiting Scientist**

- Conducted fs transient absorption experiments using highly sophisticated at a time home-built laser systems.

SYNERGISTIC ACTIVITIES

SOLVEXA LLC, San Diego, California, U.S.A.

2016 - 2017 **Director of Research and Development**

- Managed US NIH SBIR Phase I grant award.

MAGIC PHOTONICS LLC, Tempe, Arizona, U.S.A.

2008 - Present **Founder and CEO**

- Brokerage of Lithuanian photonics products in North America and American products in Lithuania.

EDUCATION

1999 - 2001 **Postdoctoral Associate** (Molecular Photonics) Arizona State University, Tempe, Arizona, U.S.A.

1999 **Ph.D.** (Sc.D. in Physical Sciences) Institute of Physics, Vilnius University, and Vilnius Gediminas Technical University, Vilnius, Lithuania.

1995 ESF Summer School “Biophysics of Photosynthesis” in Stockholm University, Sweden.

1993 **M.S.** (Diploma in Physics), Vilnius University, Vilnius, Lithuania.

HONORS AND AWARDS

1996 - 1997 Open Society Fund-Lithuania (George Soros Fund) Scholarship.

1998 Lithuanian Science and Studies Fund Scholarship.

1999 Lithuanian State Scholarship for Young Scientists.

2002 - 2003 European Union-Access to Research Infrastructures Action.

2016 US NIH SBIR grant (PI, <https://www.sbir.gov/sbirsearch/detail/1197387>).

Lithuanian Laser Association, Royal Society of Chemistry, Biophysical Society, International Society for Optics and Photonics (SPIE).

PUBLICATIONS

More than **100** original research papers in peer-reviewed journals can be accessed through Google Scholar

1. Co-flow injection for serial crystallography at X-ray free-electron lasers

By Diandra Doppler, Mohammad T. Rabbani, Romain Letrun, Jorvani Cruz Villarreal, Dai Hyun Kim, Sahir Gandhi, Ana Egatz-Gomez, Mukul Sonker, Joe Chen, Faisal H. M. Koua, Jayhow Yang, Mohamed Youssef, Victoria Mazalova, Sasa Bajt, Megan L. Shelby, Matt A. Coleman, Max O. Wiedorn, Juraj Knoska, Silvan Schön, Tokushi Sato, Mark S. Hunter, Ahmad Hosseinizadeh, Christopher Kuptiz, Reza Nazari, Roberto C. Alvarez, Konstantinos Karpos, Sahba Zaare, Zachary Dobson, Erin Discianno, Shangji Zhang, James D. Zook, Johan Bielecki, Raphael de Wijn, Adam R. Round, Patrik Vagovic, Marko Kloos, Mohammad Vakili, Gihan K. Ketawala, Natasha E. Stander, Tien L. Olson, Katherine Morin, Jyotirmoy Mondal, Jonathan Nguyen, José Domingo Meza-Aguilar, Gerdenis Kodis, Sara Vaiana, Jose M. Martin-Garcia, Valerio Mariani, et al.

From *Journal of Applied Crystallography* (2022), 55, 1-13.

2. Electron–Nuclear Dynamics Accompanying Proton-Coupled Electron Transfer

By Y. Yoneda, S. J. Mora, J. Shee, B. L. Wadsworth, E. A. Arsenault, D. Hait, G. Kodis, et al.

From *Journal of the American Chemical Society* (2021), 143 (8), 3104-3112.

3. Dynamical Heterogeneity in the Measles Virus IDP NTAIL in its Free and Bound States

By J. Kunkel, G. Kodis, G. Nagy, C. Bignon, S. Longhi, A. C. Vaiana, H. Grubmuller, et al.

From *Biophysical Journal* (2021), 120 (3), 213a.

4. Solvent Relaxation Significantly Contributes to Electron Transfer Rates between Tryptophan Triplet State and Cystine

By G. Kodis, J. D. Kunkel, W. Zheng, D. V. Matyushov, S. M. Vaiana

From *Biophysical Journal* (2021), 120 (3), 214a.

5. Violation of fluctuation-dissipation relations for electron transfer in nonpolar solvents

By G. Kodis, I. R. Gould, D. V. Matyushov

From *Physical Review Research* (2021), 3 (1), 013109-12

6. Enhanced Photocatalytic Hydrogen Production by Hybrid Streptavidin - Diiron Catalysts

By A Roy, M. D. Vaughn, J. Tomlin, G. J. Booher, G. Kodis, C. R. Simmons, J. P. Allen, et al.

From *Chemistry—A European Journal* (2020), 26 (28), 6240-6246.

7. Internal Dynamics of the Measles Virus NTAIL Protein by Photo-Induced Electron Transfer Experiments and Molecular Simulations

By J. Kunkel, G. Kodis, P. Sutto-Ortiz, C. Bignon, N. Jovic, J. Mittal, S. Longhi, et al.

From *Biophysical Journal* (2020), 118 (3), 541a.

8. Electronic Structure and Triplet-Triplet Energy Transfer in Artificial Photosynthetic Antennas

By Tejada-Ferrari, Marely E.; Brown, Chelsea L.; Coutinho, Gabriela C. C. C.; Gomes de Sa, Ghabriel A.; Palma, Julio L.; Llansola-Portoles, Manuel J.; Kodis, Gerdenis; et al.

From *Photochemistry and Photobiology* (2019), 95(1), 211-219.

9. Repeat proteins as versatile scaffolds for arrays of redox-active FeS clusters

By Mejias, Sara H.; Bahrami-Dizicheh, Zahra; Liutkus, Mantas; Sommer, Dayn Joshep; Astashkin, Andrei; Kodis, Gerdenis; Ghirlanda, Giovanna; Cortajarena, Aitziber L.

From *Chemical Communications* (2019), 55(23), 3319-3322.

10. Direct Structural and Chemical Characterization of the Photolytic Intermediates of Methylcobalamin Using Time-Resolved X-ray Absorption Spectroscopy

By Subramanian, Ganesh; Zhang, Xiaoyi; Kodis, Gerdenis; Kong, Qingyu; Liu, Cunming; Chizmeshya, Andrew; Weierstall, Uwe; Spence, John

From *Journal of Physical Chemistry Letters* (2018), 9(7), 1542-1546.

11. Light Harvesting, Photoregulation, and Photoprotection in Selected Artificial Photosynthetic Systems

By Wong-Carter, Katherine; Llansola-Portoles, Manuel J.; Kodis, Gerdenis; Gust, Devens; Moore, Ana L.; Moore, Thomas A.

From book *Light-Harvesting in Photosynthesis*, CRC press (2018), editors: Grondelle, R.; Croce, R.; Amerongen, H.; Stokkum I.

12. Triplet-triplet energy transfer in artificial and natural photosynthetic antennas

By Ho, Junming; Kish, Elizabeth; Mendez-Hernandez, Dalvin D.; Wong Carter, Katherine; Pillai, Smitha; Kodis, Gerdenis; Niklas, Jens; Poluektov, Oleg G.; Gust, Devens; Moore, Thomas A.; et al.

From *Proceedings of the National Academy of Sciences of the United States of America* (2017), 114(28), E5513-E5521.

13. Design of porphyrin-based ligands for the assembly of [d-block metal:calcium] bimetallic centers

By Koepf, Matthieu; Bergkamp, Jesse J.; Teillout, Anne-Lucie; Llansola-Portoles, Manuel J.; Kodis, Gerdenis; Moore, Ana L.; Gust, Devens; Moore, Thomas A.

From *Dalton Transactions* (2017), 46(13), 4199-4208.

14. Artificial Photosynthetic Reaction Center Exhibiting Acid-Responsive Regulation of Photoinduced Charge Separation

By Pahk, Ian; Kodis, Gerdenis; Fleming, Graham R.; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of Physical Chemistry B* (2016), 120(40), 10553-10562.

15. Marcus Bell-Shaped Electron Transfer Kinetics Observed in an Arrhenius Plot

By Waskasi, Morteza M.; Kodis, Gerdenis; Moore, Ana L.; Moore, Thomas A.; Gust, Devens; Matyushov, Dmitry V.

From *Journal of the American Chemical Society* (2016), 138(29), 9251-9257.

16. Photoinduced electron and energy transfer in a molecular triad featuring a fullerene redox mediator

By Antoniuk-Pablant, Antaeres; Kodis, Gerdenis; Moore, Ana L.; Moore, Thomas A.; Gust, Devens
From *Journal of Physical Chemistry B* (2016), 120(27), 6687-6697.

17. Spectroscopic analysis of a biomimetic model of TyrZ function in PSII

By Ravensbergen, Janneke; Antoniuk-Pablant, Antaeres; Sherman, Benjamin D.; Kodis, Gerdenis; Megiatto, Jackson D., Jr.; Mendez-Hernandez, Dalvin D.; Frese, Raoul N.; van Grondelle, Rienk; Moore, Thomas A.; et al.
From *Journal of Physical Chemistry B* (2015), 119(37), 12156-12163.

18. Photoinjection of high potential holes into Cu₅Ta₁₁O₃₀ nanoparticles by porphyrin dyes

By Sullivan, Ian; Brown, Chelsea L.; Llansola-Portoles, Manuel J.; Gervaldo, Miguel; Kodis, Gerdenis; Moore, Thomas A.; Gust, Devens; Moore, Ana L.; Maggard, Paul A.
From *Journal of Physical Chemistry C* (2015), 119(37), 21294-21303.

19. Design, synthesis and photophysical studies of phenylethynyl-bridged phthalocyanine-fullerene dyads

By Arero, Jaro; Kodis, Gerdenis; Schmitz, Robert A.; Mendez-Hernandez, Dalvin D.; Moore, Thomas A.; et al.
From *Journal of Porphyrins and Phthalocyanines* (2015), 19(8), 934-945.

20. Multiporphyrin arrays with π - π interchromophore interactions

By Terazono, Yuichi; Kodis, Gerdenis; Chachisvilis, Mirianas; Cherry, Brian R.; Fournier, Maxime; Moore, Ana; Moore, Thomas A.; Gust, Devens
From *Journal of the American Chemical Society* (2015), 137(1), 245-258.

21. Controlling surface defects and photophysics in TiO₂ nanoparticles

By Llansola-Portoles, Manuel J.; Bergkamp, Jesse J.; Finkelstein-Shapiro, Daniel; Sherman, Benjamin D.; Kodis, Gerdenis; Dimitrijevic, Nada M.; Gust, Devens; Moore, Thomas A.; Moore, Ana L.
From *Journal of Physical Chemistry A* (2014), 118(45), 10631-10638.

22. Mimics of the Tyr-His redox relay of photosystem II

By Moore, Ana L.; Gust, Devens; Moore, Thomas A.; Llansola-Portoles, Manuel J.; Kodis, Gerdenis; Mendez-Hernandez, Dalvin D.; Tomlin, John
From Abstracts of Papers, *248th ACS National Meeting & Exposition*, San Francisco, CA, United States, August 10-14, 2014 (2014), PHYS-243.

23. Modulating short wavelength fluorescence with long wavelength light

By Copley, Graeme; Gillmore, Jason G.; Crisman, Jeffrey; Kodis, Gerdenis; Gray, Christopher L.; Cherry, Brian R.; Sherman, Benjamin D.; Liddell, Paul A.; Paquette, Michelle M.; et al.
From *Journal of the American Chemical Society* (2014), 136(34), 11994-12003.

24. Synthesis and spectroscopic properties of a soluble semiconducting porphyrin polymer

By Schmitz, Robert A.; Liddell, Paul A.; Kodis, Gerdenis; Kenney, Michael J.; Brennan, Bradley J.; Oster, Nolan V.; Moore, Thomas A.; Moore, Ana L.; Gust, Devens
From *Physical Chemistry Chemical Physics* (2014), 16(33), 17569-17579.

25. Mimicking photoprotection in a model photosynthetic reaction center

By Pahk, Ian; Terazono, Yuichi; Kodis, Gerdenis; Moore, Ana L.; Moore, Thomas A.; Gust, Devens
From Abstracts of Papers, *247th ACS National Meeting & Exposition*, Dallas, TX, United States, March 16-20, 2014 (2014), ORGN-194.

26. A bioinspired redox relay that mimics radical interactions of the Tyr-His pairs of photosystem II

By Megiatto, Jackson D., Jr.; Mendez-Hernandez, Dalvin D.; Tejada-Ferrari, Marely E.; Teillout, Anne-Lucie; Llansola-Portoles, Manuel J.; Kodis, Gerdenis; Poluektov, Oleg G.; Rajh, Tijana; et al.
From *Nature Chemistry* (2014), 6(5), 423-428.

27. Photoinduced electron transfer in perylene-TiO₂ nanoassemblies

By Llansola-Portoles, Manuel J.; Bergkamp, Jesse J.; Tomlin, John; Moore, Thomas A.; Kodis, Gerdenis; Moore, Ana L.; Cosa, Gonzalo; Palacios, Rodrigo E.

From *Photochemistry and Photobiology* (2013), 89(6), 1375-1382.

28. One approach to artificial photosynthesis

By Llansola-Portoles, Manuel J.; Palacios, Rodrigo E.; Kodis, Gerdenis; Megiatto, Jackson D., Jr.; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *EPA Newsletter* (Online) (2013), 98-105.

29. Separating annihilation and excitation energy transfer dynamics in light harvesting systems

By Vengris, Mikas; Larsen, Delmar S.; Valkunas, Leonas; Kodis, Gerdenis; Herrero, Christian; Gust, Devens; Moore, Thomas; Moore, Ana; van Grondelle, Rienk

From *Journal of Physical Chemistry B* (2013), 117(38), 11372-11382.

30. Artificial photosynthetic reaction center with a coumarin-based antenna system

By Garg, Vikas; Kodis, Gerdenis; Liddell, Paul A.; Terazono, Yuichi; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of Physical Chemistry B* (2013), 117(38), 11299-11308.

31. Photonic modulation of electron transfer with switchable phase inversion

By Frey, Julien; Kodis, Gerdenis; Straight, Stephen D.; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of Physical Chemistry A* (2013), 117(3), 607-615.

32. Spectral characteristics and photosensitization of TiO₂ nanoparticles in reverse micelles by perylenes

By Hernandez, Laura I.; Godin, Robert; Bergkamp, Jesse J.; Llansola Portoles, Manuel J.; Sherman, Benjamin D.; Tomlin, John; Kodis, Gerdenis; Mendez-Hernandez, Dalvin D.; et al.

From *Journal of Physical Chemistry B* (2013), 117(16), 4568-4581.

33. Mimicking the electron transfer chain in photosystem II with a molecular triad thermodynamically capable of water oxidation

By Megiatto, Jackson D., Jr.; Antoniuk-Pablant, Antaeres; Sherman, Benjamin D.; Kodis, Gerdenis; Gervaldo, Miguel; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Proceedings of the National Academy of Sciences of the United States of America* (2012), 109(39), 15578-15583, S15578/1-S15578/31.

34. Photoelectrochemical cells for the splitting of water and production of fuel

By Moore, Ana L.; Megiatto, Jackson D.; Kodis, Gerdenis; Sherman, Benjamin D.; Bergkamp, Jesse J.; Mendez, Dalvin D.; Antoniuk-Pablant, Antaeres; Moore, Thomas A.; Gust, Devens

From Abstracts of Papers, *244th ACS National Meeting & Exposition*, Philadelphia, PA, United States, August 19-23, 2012 (2012), PHYS-83.

35. Optical and electrochemical properties of hydrogen-bonded phenol-pyrrolidino[60]fullerenes

By Moore, Gary F.; Megiatto, Jackson D.; Hamburger, Michael; Gervaldo, Miguel; Kodis, Gerdenis; Moore, Thomas A.; Gust, Devens; Moore, Ana L.

From *Photochemical & Photobiological Sciences* (2012), 11(6), 1018-1025

36. New light-harvesting roles of hot and forbidden carotenoid states in artificial photosynthetic constructs

By Kloz, Miroslav; Pillai, Smitha; Kodis, Gerdenis; Gust, Devens; Moore, Thomas A.; Moore, Ana L.; van Grondelle, Rienk; Kennis, John T. M.

From *Chemical Science* (2012), 3(6), 2052-2061.

37. Mimicking the electron transfer chain in photosystem II with a molecular triad thermodynamically capable of water oxidation

By Megiatto, Jackson D., Jr.; Antoniuk-Pablant, Antaeres; Sherman, Benjamin D.; Kodis, Gerdenis; Gervaldo, Miguel; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Proceedings of the National Academy of Sciences of the United States of America*, Early Edition (2012), (May 7 2012), 1-6, 6 pp.

38. Photobleaching and blinking of TAMRA induced by Mn(2+)

By Stennett, Elana M. S.; Kodis, Gerdenis; Levitus, Marcia

From *ChemPhysChem* (2012), 13(4), 909-913.

39. Optical modulation of molecular conductance

By Battacharyya, Shreya; Kibel, Ashley; Kodis, Gerdenis; Liddell, Paul A.; Gervaldo, Miguel; Gust, Devens; Lindsay, Stuart

From *Nano Letters* (2011), 11(7), 2709-2714.

40. Spin-selective recombination kinetics of a model chemical magnetoreceptor

By Maeda, Kiminori; Wedge, Christopher J.; Storey, Jonathan G.; Henbest, Kevin B.; Liddell, Paul A.; Kodis, Gerdenis; Gust, Devens; Hore, P. J.; Timmel, Christiane R.

From *Chemical Communications* (Cambridge, United Kingdom) (2011), 47(23), 6563-6565.

41. Carotenoid photoprotection in artificial photosynthetic antennas

By Kloz, Miroslav; Pillai, Smitha; Kodis, Gerdenis; Gust, Devens; Moore, Thomas A.; Moore, Ana L.; van Grondelle, Rienk; Kennis, John T. M.

From *Journal of the American Chemical Society* (2011), 133(18), 7007-7015.

42. Conformationally constrained macrocyclic diporphyrin-fullerene artificial photosynthetic reaction center

By Garg, Vikas; Kodis, Gerdenis; Chachisvilis, Mirianas; Hambourger, Michael; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of the American Chemical Society* (2011), 133(9), 2944-2954.

43. Mimicking the role of the antenna in photosynthetic photoprotection

By Terazono, Yuichi; Kodis, Gerdenis; Bhushan, Kul; Zaks, Julia; Madden, Christopher; Moore, Ana L.; Moore, Thomas A.; Fleming, Graham R.; Gust, Devens

From *Journal of the American Chemical Society* (2011), 133(9), 2916-2922.

44. A porphyrin-stabilized iridium oxide water oxidation catalyst

By Sherman, Benjamin D.; Pillai, Smitha; Kodis, Gerdenis; Bergkamp, Jesse; Mallouk, Thomas E.; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From *Canadian Journal of Chemistry* (2011), 89(2), 152-157.

45. A photo- and electrochemically-active porphyrin-fullerene dyad electropolymer

By Gervaldo, Miguel; Liddell, Paul A.; Kodis, Gerdenis; Brennan, Bradley J.; Johnson, Christopher R.; Bridgewater, James W.; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Photochemical & Photobiological Sciences* (2010), 9(7), 890-900.

46. Effects of protonation state on a tyrosine-histidine bioinspired redox mediator

By Moore, Gary F.; Hambourger, Michael; Kodis, Gerdenis; Michl, Weston; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From *Journal of Physical Chemistry B* (2010), 114(45), 14450-14457.

47. Photochemical "Triode" molecular signal transducer

By Keirstead, Amy E.; Bridgewater, James W.; Terazono, Yuichi; Kodis, Gerdenis; Straight, Stephen; Liddell, Paul A.; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of the American Chemical Society* (2010), 132(18), 6588-6595.

48. Solar energy conversion in a photoelectrochemical biofuel cell

By Hambourger, Michael; Kodis, Gerdenis; Vaughn, Michael D.; Moore, Gary F.; Gust, Devens; Moore, Ana L.; Moore, Thomas A.

From *Dalton Transactions* (2009), (45), 9979-9989.

49. Mimicking control and energy converting functions of photosynthesis

By Moore, Thomas A.; Moore, Ana L.; Gust, Devens; Straight, Stephen D.; Terazono, Yuichi; Kodis, Gerdenis

From Abstracts of Papers, *238th ACS National Meeting*, Washington, DC, United States, August 16-20, 2009 (2009), PHYS-078.

50. Multiantenna artificial photosynthetic reaction center complex

By Terazono, Yuichi; Kodis, Gerdenis; Liddell, Paul A.; Garg, Vikas; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of Physical Chemistry B* (2009), 113(20), 7147-7155.

51. Macrocyclic artificial photosynthetic reaction center organized on a hexaphenylbenzene core

By Garg, Vikas; Kodis, Gerdenis; Hambourger, Michael; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From Abstracts of Papers, *237th ACS National Meeting*, Salt Lake City, UT, United States, March 22-26, 2009 (2009), ORGN-026.

52. Self-regulation of photoinduced electron transfer by a molecular nonlinear transducer

By Straight, Stephen D.; Kodis, Gerdenis; Terazono, Yuichi; Hambourger, Michael; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Nature Nanotechnology* (2008), 3(5), 280-283.

53. Entropic changes control the charge separation process in triads mimicking photosynthetic charge separation

By Rizzi, Alberto C.; van Gestel, Maurice; Liddell, Paul A.; Palacios, Rodrigo E.; Moore, Gary F.; Kodis, Gerdenis; Moore, Ana L.; Moore, Tom A.; Gust, Devens; Braslavsky, Silvia E.

From *Journal of Physical Chemistry A* (2008), 112(18), 4215-4223.

54. Photochromic manipulation of energy and electron transfer

By Straight, Stephen D.; Andreasson, Joakim; Kodis, Gerdenis; Terazono, Yuichi; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From Abstracts of Papers, *234th ACS National Meeting*, Boston, MA, United States, August 19-23, 2007 (2007), ORGN-461.

55. Energy transfer, excited-state deactivation and exciplex formation in artificial carotene-phthalocyanine light-harvesting antennas

By Berera, Rudi; van Stokkum, Ivo H. M.; Kodis, Gerdenis; Keirstead, Amy E.; Pillai, Smitha; Herrero, Christian; Palacios, Rodrigo E.; Vengris, Mikas; van Grondelle, Rienk; Gust, Devens; et al.

From *Journal of Physical Chemistry B* (2007), 111(24), 6868-6877.

56. Photoinduced electron transfer in a hexaphenylbenzene-based self-assembled porphyrin-fullerene triad

By Terazono, Yuichi; Kodis, Gerdenis; Liddell, Paul A.; Garg, Vikas; Gervaldo, Miguel; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Photochemistry and Photobiology* (2007), 83(2), 464-469.

57. Bioinspired energy conversion schemes

By Moore, Ana L.; Moore, Gary F.; Hambourger, Michael; Kodis, Gerdenis; Gervaldo, Miguel; Liddell, Paul A.; Gust, Devens; Moore, Thomas A.

From Abstracts of Papers, *233rd ACS National Meeting*, Chicago, IL, United States, March 25-29, 2007 (2007), INOR-088.

58. Charge separation and energy transfer in a caroteno-C60 dyad: photoinduced electron transfer from the carotenoid excited states

By Berera, Rudi; Moore, Gary F.; van Stokkum, Ivo H. M.; Kodis, Gerdenis; Liddell, Paul A.; Gervaldo, Miguel; van Grondelle, Rienk; Kennis, John T. M.; Gust, Devens; Moore, Thomas A.; et al.

From *Photochemical & Photobiological Sciences* (2006), 5(12), 1142-1149.

59. All-photonic molecular half-adder

By Andreasson, Joakim; Straight, Stephen D.; Kodis, Gerdenis; Park, Choong-Do; Hambourger, Michael; Gervaldo, Miguel; Albinsson, Bo; Moore, Thomas; Moore, Ana L.; Gust, Devens

From *Journal of the American Chemical Society* (2006), 128(50), 16259-16265.

60. Integrating artificial photosynthetic antennas and reaction centers

By Gust, Devens; Terazono, Yuichi; Liddell, Paul A.; Kodis, Gerdenis; Garg, Vikas; Andreasson, Joakim; Hambourger, Michael; Moore, Thomas A.; Moore, Ana L.

From Abstracts, *62nd Southwest Regional Meeting of the American Chemical Society*, Houston, TX, United States, October 19-22 (2006), SRM-148.

61. Tetrapyrrole singlet excited state quenching by carotenoids in an artificial photosynthetic antenna

By Palacios, Rodrigo E.; Kodis, Gerdenis; Herrero, Christian; Ochoa, Ernesto Marino; Gervaldo, Miguel; Gould, Stephanie L.; Kennis, John T. M.; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From *Journal of Physical Chemistry B* (2006), 110(50), 25411-25420.

62. Artificial photosynthetic antenna-reaction center complexes based on a hexaphenylbenzene core

By Terazono, Yuichi; Liddell, Paul A.; Garg, Vikas; Kodis, Gerdenis; Brune, Alicia; Hambourger, Michael; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of Porphyrins and Phthalocyanines* (2005), 9(10 & 11), 706-723.

63. A simple artificial light-harvesting dyad as a model for excess energy dissipation in oxygenic photosynthesis

By Berera, Rudi; Herrero, Christian; van Stokkum, Ivo H. M.; Vengris, Mikas; Kodis, Gerdenis; Palacios, Rodrigo E.; van Amerongen, Herbert; van Grondelle, Rienk; Gust, Devens; et al.

From *Proceedings of the National Academy of Sciences of the United States of America* (2006), 103(14), 5343-5348.

64. Photoswitchable sensitization of porphyrin excited states

By Straight, Stephen D.; Terazono, Yuichi; Kodis, Gerdenis; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Australian Journal of Chemistry* (2006), 59(3), 170-174.

65. Artificial photosynthetic reaction centers with carotenoid antennas

By Gould, Stephanie L.; Kodis, Gerdenis; Liddell, Paul A.; Palacios, Rodrigo E.; Brune, Alicia; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From *Tetrahedron* (2006), 62(9), 2074-2096.

66. Exploring paradigms of natural photosynthesis: energy and electron transfer in artificial antenna-reaction center complexes

By Kodis, Gerdenis; Terazono, Yuichi; Liddell, Paul A.; Garg, Vikas; Herrero, Christian; Palacios, Rodrigo E.; Hambourger, Michael; Berera, Rudi; Kennis, John T. M.; Moore, Thomas A.; et al.

From Abstracts, *40th Western Regional Meeting of the American Chemical Society*, Anaheim, CA, United States, January 22-25 (2006), WRM-223.

67. Energy and photoinduced electron transfer in a wheel-shaped artificial photosynthetic antenna-reaction center Complex

By Kodis, Gerdenis; Terazono, Yuichi; Liddell, Paul A.; Andreasson, Joakim; Garg, Vikas; Hambourger, Michael; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of the American Chemical Society* (2006), 128(6), 1818-1827.

68. Artificial photosynthetic reaction centers: mimicking sequential electron and triplet-energy transfer

By Palacios, Rodrigo E.; Kodis, Gerdenis; Gould, Stephanie L.; de la Garza, Linda; Brune, Alicia; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From *ChemPhysChem* (2005), 6(11), 2359-2370.

69. Energy conversion involving carotenoids polyenes

By Moore, Ana L.; Moore, Thomas A.; Gust, Devens; Moore, Gary F.; Kennis, John; Hambourger, Michael; Kodis, Gerdenis; Liddell, Paul A.

From Abstracts of Papers, *230th ACS National Meeting*, Washington, DC, United States, Aug. 28-Sept. 1, 2005 (2005), PHYS-193.

70. Photoinduced long-lived charge separation in a tetrathiafulvalene-porphyrin-fullerene triad detected by time-resolved electron paramagnetic resonance

By Di Valentin, Marilena; Bisol, Arianna; Agostini, Giancarlo; Liddell, Paul A.; Kodis, Gerdenis; Moore, Ana L.; Moore, Thomas A.; Gust, Devens; Carbonera, Donatella

From *Journal of Physical Chemistry B* (2005), 109(30), 14401-14409.

71. Bioinspired energy conversion

By Palacios, Rodrigo E.; Gould, Stephanie L.; Herrero, Christian; Hambourger, Michael; Brune, Alicia; Kodis, Gerdenis; Liddell, Paul A.; Kennis, John; Macpherson, Alisdair N.; Gust, Devens; et al

From *Pure and Applied Chemistry* (2005), 77(6), 1001-1008.

72. Molecular AND and INHIBIT gates based on control of porphyrin fluorescence by photochromes

By Straight, Stephen D.; Andreasson, Joakim; Kodis, Gerdenis; Bandyopadhyay, Subhajit; Mitchell, Reginald H.; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of the American Chemical Society* (2005), 127(26), 9403-9409.

73. Stepwise sequential and parallel photoinduced charge separation in a porphyrin-triquinone tetrad

By Springer, Joseph W.; Kodis, Gerdenis; de la Garza, Linda; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From Abstracts of Papers, *229th ACS National Meeting*, San Diego, CA, United States, March 13-17, 2005 (2005), ORGN-939.

74. Photochromic control of photoinduced electron transfer. Molecular double-throw switch

By Straight, Stephen D.; Andreasson, Joakim; Kodis, Gerdenis; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of the American Chemical Society* (2005), 127(8), 2717-2724.

75. Photoinduced electron transfer in a symmetrical diporphyrin-fullerene triad

By Liddell, Paul A.; Kodis, Gerdenis; Kuciauskas, Darius; Andreasson, Joakim; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Physical Chemistry Chemical Physics* (2004), 6(24), 5509-5515.

76. Molecule-based photonically switched half-adder

By Andreasson, Joakim; Kodis, Gerdenis; Terazono, Yuichi; Liddell, Paul A.; Bandyopadhyay, Subhajit; Mitchell, Reginald H.; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of the American Chemical Society* (2004), 126(49), 15926-15927.

77. Synthesis and photochemistry of a carotene-porphyrin-fullerene model photosynthetic reaction center

By Kodis, Gerdenis; Liddell, Paul A.; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of Physical Organic Chemistry* (2004), 17(9), 724-734.

78. Artificial photosynthetic reaction centers with porphyrins as primary electron acceptors

By Gould, Stephanie L.; Kodis, Gerdenis; Palacios, Rodrigo E.; de la Garza, Linda; Brune, Alicia; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From *Journal of Physical Chemistry B* (2004), 108(29), 10566-10580.

79. Benzene-templated model systems for photosynthetic antenna-reaction center function

By Liddell, Paul A.; Kodis, Gerdenis; de la Garza, Linda; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of Physical Chemistry B* (2004), 108(29), 10256-10265.

80. Photonic switching of photoinduced electron transfer in a dihydropyrene-porphyrin-fullerene molecular triad

By Liddell, Paul A.; Kodis, Gerdenis; Andreasson, Joakim; De la Garza, Linda; Bandyopadhyay, Subhajit; Mitchell, Reginald H.; Moore, Thomas A.; Moore, Ana L.; Gust, Devens

From *Journal of the American Chemical Society* (2004), 126(15), 4803-4811.

81. Synthesis and photophysics of artificial photosynthetic reaction centers with porphyrins as primary electron acceptors

By Gould, Stephanie L.; Kodis, Gerdenis; Palacios, Rodrigo; de la Garza, Linda; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From Abstracts of Papers, *227th ACS National Meeting*, Anaheim, CA, United States, March 28-April 1, 2004 (2004), ORGN-228.

82. Photonic control of photoinduced electron transfer via switching of redox potentials in a photochromic moiety

By Terazono, Yuichi; Kodis, Gerdenis; Andreasson, Joakim; Jeong, Goojin; Brune, Alicia; Hartmann, Thomas; Duerr, Heinz; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of Physical Chemistry B* (2004), 108(6), 1812-1814.

83. Photonic control of photoinduced electron transfer in a porphyrindihydroindolizine dyad

By Terazono, Yuichi; Kodis, Gerdenis; Andreasson, Joakim; Jeong, Goojin; Hartmann, Thomas; Duerr, Heinz; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From Abstracts, *38th Western Regional Meeting of the American Chemical Society*, Long Beach, CA, United States, October 15-18 (2003), 169.

84. Light harvesting and photoprotective functions of carotenoids in compact artificial photosynthetic antenna Designs

By Kodis, Gerdenis; Herrero, Christian; Palacios, Rodrigo; Marino-Ochoa, Ernesto; Gould, Stephanie; De la Garza, Linda; Van Grondelle, Rienk; Gust, Devens; Moore, Thomas A.; Moore, Ana L.; et al.

From *Journal of Physical Chemistry B* (2004), 108(1), 414-425.

85. Photoinduced hole transfer from the triplet state in a porphyrin-based donor-bridge-acceptor system

By Andreasson, Joakim; Kodis, Gerdenis; Ljungdahl, Thomas; Moore, Ana L.; Moore, Thomas A.; Gust, Devens; Mrtensson, Jerker; Albinsson, Bo

From *Journal of Physical Chemistry A* (2003), 107(42), 8825-8833.

86. Stepwise sequential and parallel photoinduced charge separation in a porphyrin-triquinone tetrad

By Springer, Joseph; Kodis, Gerdenis; De La Garza, Linda; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of Physical Chemistry A* (2003), 107(18), 3567-3575.

87. High-efficiency energy transfer from carotenoids to a phthalocyanine in an artificial photosynthetic antenna

By Marino-Ochoa, Ernesto; Palacios, Rodrigo; Kodis, Gerdenis; Macpherson, Alisdair N.; Gillbro, Tomas; Gust, Devens; Moore, Thomas A.; Moore, Ana L.

From *Photochemistry and Photobiology* (2002), 76(1), 116-121.

88. The gold porphyrin first excited singlet state

By Andreasson, Joakim; Kodis, Gerdenis; Lin, Su; Moore, Ana L.; Moore, Thomas A.; Gust, Devens; Martensson, Jerker; Albinsson, Bo

From *Photochemistry and Photobiology* (2002), 76(1), 47-50.

89. Photoinduced electron transfer in π -extended tetrathiafulvalene-porphyrin-fullerene triad molecules

By Kodis, Gerdenis; Liddell, Paul A.; de la Garza, Linda; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of Materials Chemistry* (2002), 12(7), 2100-2108.

90. Photonic switching of photoinduced electron transfer in a dithienylethene-porphyrin-fullerene triad molecule

By Liddell, Paul A.; Kodis, Gerdenis; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of the American Chemical Society* (2002), 124(26), 7668-7669.

91. Efficient energy transfer and electron transfer in an artificial photosynthetic antenna-reaction center complex

By Kodis, Gerdenis; Liddell, Paul A.; de la Garza, Linda; Clausen, P. Christian; Lindsey, Jonathan S.; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of Physical Chemistry A* (2002), 106(10), 2036-2048.

92. Photoinduced electron transfer in tetrathiafulvalene-porphyrin-fullerene molecular triads

By Liddell, Paul A.; Kodis, Gerdenis; De la Garza, Linda; Bahr, Jeffrey L.; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Helvetica Chimica Acta* (2001), 84(9), 2765-2783.

93. Photoswitched singlet energy transfer in a porphyrin-spiropyran dyad

By Bahr, Jeffrey L.; Kodis, Gerdenis; de la Garza, Linda; Lin, Su; Moore, Ana L.; Moore, Thomas A.; Gust, Devens

From *Journal of the American Chemical Society* (2001), 123(29), 7124-7133

94. Excitation dynamics in solutions, films and crystals of indandione-1,3 pyridinium betaine

By Jursenas, S.; Kovalevskij, V.; Gulbinas, V.; Gruodis, A.; Kodis, G.; Muzikante, I.; Gustavsson, T.; et al.

From *Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals* (2001), 355, 105-125.

95. Fullerenes and artificial photosynthesis

By Gust, Devens; Moore, Thomas A.; Moore, Ana L.; Liddell, Paul A.; Kuciauskas, Darius; Kodis, Gerdenis; Bahr, Jeffrey; de la Garza, Linda; Lindsey, Jonathan S.; Johnson, Thomas E.; et al.

From Abstracts of Papers, *221st ACS National Meeting*, San Diego, CA, United States, April 1-5, 2001 (2001), IEC-179.

96. Optical nonlinearities of glass doped with PbS nanocrystals

By Tamulaitis, G.; Gulbinas, V.; Kodis, G.; Dementjev, A.; Valkunas, L.; Motchalov, I.; Raaben, H.

From *Journal of Applied Physics* (2000), 88(1), 178-182.

97. Femtosecond excited-state dynamics in N,N-dimethylaminobenzylidene-1,3-indandione (DMABI) films

By Jursenas, S.; Gulbinas, V.; Kuprionis, Z.; Kananavicius, R.; Kodis, G.; Gustavsson, T.; Mialocq, J.-C.; et al.

From *Synthetic Metals* (2000), 109(1-3), 169-172.

98. Charge transfer induced excited state twisting of N,N-dimethylaminobenzylidene-1,3-indandione in solution

By Gulbinas, V.; Kodis, G.; Jursenas, S.; Valkunas, L.; Gruodis, A.; Mialocq, J.-C.; Pommeret, S.; Gustavsson, T.

From *Journal of Physical Chemistry A* (1999), 103(20), 3969-3980.

99. Spectroscopy of self-trapped charge-transfer excitons in polar films and crystals of N,N-dimethylaminobenzylidene 1,3-indandione (DMABI)

By Jursenas, Saulius; Gulbinas, Vidmantas; Gruodis, Alytis; Kodis, Gerdenis; Kovalevskij, Vitalij; Valkunas, Leonas

From *Physical Chemistry Chemical Physics* (1999), 1(8), 1715-1718.

100. Self-trapped excitons in polar organic crystals of dimethylaminobenzylidene indan-1,3-dione and indan-1,3-dione pyridinium betaine

By Kovalevskij, V.; Jursenas, S.; Gruodis, A.; Kodis, G.; Valkunas, L.

Edited by Bortchagovsky, E. G

From *Proceedings of the International School-Conference for Young Scientists "Solid State Physics: Fundamentals & Applications"*, Katsyveli, Ukraine, June 14-22, 1997 (1997), R1-R3.

101. Exciton-phonon interaction in polar organic crystals

By Jursenas, S.; Kovalevskij, V.; Gruodis, A.; Kodis, G.; Valkunas, L.; Mazikante, I.; Silinsh, E. A.

From *Lietuvos Fizikos Zurnalas* (1997), 37(6), 567-571.

102. Free and self-trapped charge-transfer excitons in crystals of dipolar mols. of N,N-dimethylaminobenzylidene-1,3-indandione

By Jursenas, S.; Gruodis, A.; Kodis, G.; Chachisvilis, M.; Gulbinas, V.; Silinsh, E. A.; Valkunas, L.

From *Journal of Physical Chemistry B* (1998), 102(7), 1086-1094

103. Optical properties of films built-up by polar molecules

By Jursenas, S.; Gruodis, A.; Kodis, G.; Valkunas, L.; Kaulach, I.; Silinsh, E. A.

From *Proceedings of SPIE-The International Society for Optical Engineering* (1997), 2968(Optical Organic and Semiconductor Inorganic Materials), 24-33.

104. Nonlinear luminescence of polar dimethylaminobenzylidene-1,3-indandione compounds

By Kodis, G.; Gulbinas, V.; Valkunas, L.; Jursenas, S.

From *Lietuvos Fizikos Zurnalas* (1996), 36(4), 336-339.

105. Non-linear luminescence of dimethylaminobenzylidene-1,3-indandione solids

By Kodis, G.; Gulbinas, V.; Valkunas, L.; Jursenas, S.

From *Advanced Materials for Optics and Electronics* (1996), 6(5&6), 391-394.

106. Spectroscopy of excitons in the polar molecular crystal DMABI

By Jursenas, S.; Gruodis, A.; Kodis, G.; Valkunas, L.

From *Advanced Materials for Optics and Electronics* (1996), 6(5&6), 387-390.

107. Visible luminescence of ((dimethylamino)benzylidene)-1,3-indandione compounds excited by ultrashort infrared light pulses

By Gulbinas, V.; Kodis, G.; Valkunas, L.

From *Journal of Physical Chemistry* (1996), 100(50), 19441-19445.

108. Relaxation of self-trapped excitons in polar molecular compounds

By Jursenas, S.; Gruodis, A.; Kodis, G.; Chachisvilis, M.; Valkunas, L.

From *AIP Conference Proceedings* (1996), 364(Fast Elementary Processes in Chemical and Biological Systems), 191-196.

109. Optical properties of polar molecular compounds derivatives of dimethylaminebenzylidene 1,3-indandione (DMABI)

By Jursenas, S.; Gruodis, A.; Kodis, G.; Chachisvilis, M.; Valkunas, L.

From *Lietuvos Fizikos Zurnalas* (1994), 34(4), 361-9.