Prashant V. Kamat

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Radiation Laboratory and
Dept. of Chemical & Biomolecular Engineering
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Educational Background

Ph.D. in Physical Chemistry from Bombay University, India, 1979

M. S. in Chemistry from Bombay University, India, 1974

B.S. from Karnatak University, India 1972

Professional Experience

John A. Zahm Professor of Science (Endowed Chair)
Dept. of Chemistry & Biochemistry and Radiation Laboratory, University of Notre Dame,
2010-present

Professor
Dept. of Chemistry & Biochemistry, University of Notre Dame, 2006-present

Concurrent Professor
Dept. of Chemical & Biomolecular Engineering, University of Notre Dame, 2003-present

Professional Specialist
Radiation Laboratory, University of Notre Dame, 1992-2006.

Associate Professional Specialist
Radiation Laboratory, University of Notre Dame, 1988-1992.

Assistant Professional Specialist
Radiation Laboratory, University of Notre Dame, 1983-1988.

Postdoctoral Research Associate
University of Texas at Austin, Austin, Texas (Prof. Marye Anne Fox), 1981-1983.

Postdoctoral Research Associate
Boston University, Boston, Massachusetts (Prof. Norman Lichtin), 1979-1981.

Scientist
Hindustan Lever Research Center, Bombay, India, 1977-1979.

Current Research Interests

Energy Research. Design of inorganic-organic nanoassemblies for light energy conversion, Quantum dot and Perovskite solar cells, and Solar hydrogen production.

Nanotechnology/Materials Chemistry. Metal and semiconductor nanostructures, heterostructure and inorganic-organic hybrids, including synthesis, characterization, and surface functionalization; optical properties, and photoelectrochemistry.

Chemical Processes in Heterogeneous Media. Surface photochemical processes, Molecular aggregates and clusters, Ultrafast radiation and photochemical events in metal oxides, metal halide perovskites and polymers, Mechanism and kinetics of photoeffects at semiconductor/electrolyte interface.

Environmental Science. Sensing hazardous chemicals and Advanced oxidation processes for treating organic wastes from water.

Professional Recognition

2022 Fellow, Materials Research Society

2015 Pravasi Fellow, Indian National Science Academy (INSA)

2011 Fellow, American Chemical Society

2010 Fellow, AAAS (American Association of Advancement of Science)

2008 Fellow, The Electrochemical Society

Awards/Fellowships/Recognition

2025 G. M. Kosolapoff Award, Auburn University, Auburn USA

2024 Otto Wolfbeis Award, Methods and Application in Fluorescence (MAF) Conference, Valencia, Spain

2024 James A. Burns, C.S.C. Graduate School Award, University of Notre Dame, Notre Dame

2024 Henry H. Storch Award in Energy Chemistry (ACS National Award)

2023 Crano Memorial Lecturship Award, Akron Section of the American Chemical Society

2023-2014 Recognized each year as Most Cited Researchers (Thomson Reuters)

2022 Porter Medal in Photochemistry (awarded jointly by three international photochemical societies)

2022 Richard Smalley Award by the Electrochemical Society (Nanocarbon Division)

2022 Top 50 Chemistry scientists worldwide (Research.Com)

2019 Honorary Doctorate Degree, Szeged University, Szeged, Hungary

2019- The Journal of Physical Chemistry C Festschrift honoring the research contributions

2017-18 Centennial Visiting rofessor, Indian Institute of Science, Bangalore

2014 - Presidential Research Achievement Award, University of Notre Dame

2013 - Langmuir Lectureship Award (American Chemical Society)

2012 - Visiting Professor at Indian Institute of Science, India. (Centennial Professorship)

2011 - Visiting Professor at Marie Curie University, Paris and a symposium in honor of the award of Professorship

2011 - Chemical Research Society of India Medal(CRSI)

2010 - Visiting Professor, Kyoto University

2010 – Faculty Recognition by the provost at the home football game

2007 - Rajendralal Mitra Professorship Award, Indian Association for the Cultivation of Science, Kolkata, India

2006 - Honda-Fujishima Lectureship Award, The Japan Photochemical Society

1997, 2003, 2012 - A JSPS Research Fellow Award, the Japan Society for the Advancement of Science (JSPS)

Research Activity

Graduate and Undergraduate Research Highlights:

Six graduate students from the University of Notre Dame are currently carrying out research towards their Ph. D. degrees.

Akshaya Chemmanghat, Eilers Fellowship (2025)

Gabor Szabo, Eilers Fellowship (2024)

Jeffrey DuBose, Inter American Photochemical Society (IAPS) Gerald Closs Award (2022)

Jeffrey DuBose Shaheen award for the best PhD thesis in the College of Science (2022)

Jeffrey DuBose, Dow Chemical Company Outstanding Graduate Student Award (2021/2022)

Anthony Kipkorir Forgash Fellowship (2022)

C. Jishnudas Eilers Fellowship (2022)

Jeffry DuBose ACS, Physical Chemistry Division, Best research presentation award (2021)

Preethi Mathew Eilers Fellowship (2020)

Jeffry DuBose Forgash Fellowship (2020)

Rebecca Scheidt Eilers Fellowship (2018) and Bayer Environmental Fellowship (2019)

Steven Kobosco Bayer Environmental Research Fellowship (2017)

Jacob Hoffman Eilers Fellowship (2017)

Danilo Jara Bayer Environmental Research Fellowship (2016)

Jeff Christians and Douglas Hines Shaheen award for the best PhD thesis (2015)

Doug Hines also received Rohm-Haas award from the Department of Chemistry (2015)

Young Siou Chen ECS Travel award (2015)

Young Siou Chen Eiler Graduate Fellowship/ Bayer Environmental Research Fellowship (2014-2015)

James Radich and Jeff Christians, Eiler Graduate Fellowship (2013-2014)

James Radich, Bayer Environmental Research Fellowship (2013-2014)

Joseph Manser, Participant in ACS Publications multimedia workshop (2013)

James Radich, Winner of the Energy Technology Division Award (2013)

Douglas Pernik (2011-2012), Tim Siegler (2012-2013) Statt Fellowship for undergraduate research

Ian Lightcap (2011- 2012) Rohm & Haas Outstanding Graduate student award

Sean Murphy (2012) Invited speaker at Gordon Research Graduate Student Workshop

Jeff Christians (2012) Participant in ACS Publications multimedia workshop

Patrick Brown, William R. Wischerath Outstanding Chemistry Major Award. Also received Outstanding Physics Major award.

Blake Farrow, Runner up, Video contest, "What is Nano" sponsored by ACS (March 2009)

Patrick Brown, Co-winner Student Presentation, 2009 AAAS Meeting, Chicago (March 2009)

Dr. Di Liu is the recepient of the highest graduate student honors in the College of Science, Univ. of Notre Dame (May 1994).

V. Subramanian received the 2004 William D. Manly Award for excellence in materials research for his thesis work The award is presented annually by the College of Engineering, University of Notre Dame.

V. Subramanian was awarded the best student poster presentation at the Symposium of Catalysis Club of Chicago Northwestern University, Evanston, IL May 20, 2002 and AIChE meeting at San Francisco, November 2003.

Two past students (Bedja and Nasr) were winners of the Summer Fellowships administered by the Electrochemical Society.

Students' Theses*:*

Ph. D. Thesis

1. **Bo-An Chen** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, April 2024)
   Two-Dimensional Molybdenum Disulfide For Sunlight Harvesting: Photophysical And Catalytic Insights
2. **Jishnudas Chakkamalayath** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, March 2024)
   Energy Transfer from Metal Halide Perovskites: Insights For Solar Energy Harvesting
3. **Anthony Kipkorir** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, March 2024)
   From Photophysics to Photocatalysis: Insights into Ternary Semiconductor Nanocrystals
4. **Andrea Casotto** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, December 2023, and Istituto Italiano di Tecnologia XXXIII Ciclo di Dottorato - International PhD in Science)
   Advanced Spectroscopies for Investigating Electronic Properties and Charge Transfer Mechanisms in Graphene and Hybrid Interfaces
5. **Preethi Mathew** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, March 2023)
   Ion Migration in Lead Halide Perovskites: Thermal and Photostability Insights
6. **Jeffrey DuBose** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, March 2022)
   Excited State Properties of Metal Halide Perovskites: Insights for Photocatalysis and Photovoltaics
7. **Federica Costantino** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, February 2022, and Istituto Italiano di Tecnologia XXXIII Ciclo di Dottorato - International PhD in Science)
   Advanced Nanocomposites for Photocatalytic Degradation of Organic Pollutants in Water
8. **Rebecca Scheidt** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, March 2020
   Mechanistic insights Into Lead Halide Perovskite Transformations
9. **Steven Kobosko** Dept. of Chem. & Biomol. Engineering, University of Notre Dame(March 2016)
   Multinary Semiconductor Quantum Dots: Photophysical Properties And Photovoltaic Applications
10. **Victoria Bridewell** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, March 2018)

Semiconductor and Graphene Oxide Nanomaterial Assemblies for Sensing and Photocatalytic Degradation of Chemical Contaminants

11. **Jacob Hoffman** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, May 2017)
    Utilizing Quantum Dot Assemblies for Light Harvesting Applications
12. **Seog Joon Yoon** (Dept. of Chemistry & Biochemistry, U. of Notre Dame, April 2017)
    Role of Mixed Halide on Photophysical Properties of Organic-Inorganic Hybrid Perovskite Compounds
13. **Danilo Jara**, Ph. D. (Dept. of Chemistry & Biochemistry, U. of Notre Dame, April 2017)
    Photophysical and Photovoltaic Properties of $CuInS_2$ Semiconductor Nanocrystal Quantum Dots
14. **Joseph S. Manser, Ph.D.** (Dept. of Chemical & Biomolecular Engineering, University of Notre Dame, April 2016)
    Hybrid Lead Halide Perovskites for Light Energy Conversion: Excited State Properties and Photovoltaic Applications
15. **Yong-Siou Chen, Ph.D.** (Dept. of Chemistry and Biochemistry, University of Notre Dame, April 2016)
    Organometal halide perovskites and gold nanoclusters for solar energy conversion
16. **Jeffrey A. Christians** (Dept. of Chemical & Biomolecular Eng., U. Notre Dame, April 2015)
    Mesostructured Thin Film Solar Cells: Examining Hole Transfer Mechanisms and Device Stability
17. **Douglas Hines** (Department of Chemistry and Biochemistry, U. of Notre Dame, April 2015)
    Excited State Reactions at the Quantum Dot Surface
18. **James Radich** (Dept. of Chemical & Biomolecular Engineering, U. Notre Dame, April 2014)
    Reduced Graphene Oxide-Based Nanoassembiles for Energy Storage
19. **Sachidananda Krishnamurthy** (Department of Chemistry, University of Notre Dame, April 2014)
    Graphene-Based Assemblies: Electron Transfer Processes and Energy Conversion Applications
20. **Sean Murphy**, Ph. D. (Department of Chemistry, University of Notre Dame, March 2013)
    Metal Nanoparticle-Graphene Oxide Composites: Photophysical Properties and Sensing Applications
21. **Ian Lightcap, Ph.D.** (Dept. of Chemical, University of Notre Dame, April 2012) *Excited State Interactions in Graphene Oxide-Semiconductor/Metal Nanoparticle Architectures for Sensing and Energy Conversion*
22. **Benjamin Meekins, Ph.D.** (Dept. of Chemical & Biomolecular Engineering, University of Notre Dame, April 2012)
    Controlling Interfacial Transfer Processes for Improved Photoelectrochemical Performance
23. **Mathew Becker** Department of Physics, University of Notre Dame, December 2011
    Toward the Structural Understanding and Improved Performance of Quantum Dot Solar Cells
24. **Kevin Tvrdy** Department of Chemistry, University of Notre Dame, March 2011 *Electron Transfer Reactions in Quantum Dot Sensitized Solar Cells*
25. **David Baker** Dept. of Chemical & Biomolecular Eng, University of Notre Dame, March 2011 *On the Advancement of Quantum Dot Solar Cell Performance Through Enhanced Charge Carrier Dynamics.*
26. **Cliffton Harris** Department of Chemistry, University of Notre Dame, March 2011 *Photoinduced Electron Transfer Processes of Semiconductor Quantum Dots in Confined Media*
27. **Yanghai Yu,** Department of Chemical and Biomolecular Engineering, University of Notre Dame, July 2010
    Photoelectronic Properties of CdSe and CdTe nanowires
28. **Brian Seger,** Department of Chemical and Biomolecular Engineering, University of Notre Dame, June 2009

Electrocatalytic and Photoelectrocatalytic Aspects of Proton Exchange Membrane Based Nanostructured Assemblies

29. **Istvan Robel,** Department of Physics, University of Notre Dame, October 2006. (Co-Advisor: B. Bunker)
    Molecularly Wired Nanocomposites: Charge Transfer in Semiconductor, Metal, and Carbon Nanotube Architectures
30. **Roxana Nicolaescu,** Department of Chemistry, University of Notre Dame, May 2003 (Co-Advisor: O. Wiest)
    Radical Induced Transformations of N-Heterocyclic Compounds. Mechanistic and Kinetic Aspects
31. **V. Subramanian,** Dept. of Chemical & Biomolecular Engineering, Jan 2004 (Co-Advisor: E. E. Wolf)
    "Photoelectrochemical and photocatalytic aspects of semiconductor-metal nanocomposites."
32. **Julie Peller,** University of Notre Dame, May 2003 (Co-Advisor: O. Wiest)
    Hydroxyl radical mediated transformations of Herbicide, 2,4-Dichlorophenoxyacetic acid and related compounds.
33. **Di Liu** Ph. D., Univ. of Notre Dame, November 1996 (Co-Advisor: R. W. Fessenden)
    Photophysics, photochemistry and photoelectrochemistry of dye-capped semiconductor nanoclusters
34. **Ulick Stafford**, Ph. D., University of Notre Dame, May 1995 (Co-Advisor: K. A. Gray)
    Photocatalytic oxidation of a model halogenated aromatic compound. A mechanistic study

Following external students have conducted their Ph D research at Notre Dame under my supervision. Their research was supported by the DOE funded program at Radiation Laboratory. After completion of their research, they successfully defended their thesis at their host institutions.

1. **Daniel Schmelling**, Univ. of Notre Dame, May 1996 (Advisor: K. A. Gray)
   The photocatalytic behavior of 2,4,6-trinitrotoluene in titanium dioxide systems: Photochemical, electrochemical and radiolytic investigations
2. **Taku Hasobe,** Osaka University, December 2005, (Advisor: S. Fukuzumi, Osaka University)
   Organization of Porphyrin and Fullerene Units for Light Energy Conversion
3. **Adam Zacheis,** Northwestern Univ., April 2001 (Advisor: K. A. Gray, Northwestern University)
   Degradation of contaminants adsorbed to Heterogeneous surfaces using Ionizing Radiation.
4. **C. Nasr**, Univ. of Quebec, Canada, December 1998) (Advisor: S. Hotchandani, U. Quebec à Trois Riveres)
   Étude de la photosensibilisation et du transferet inverse d'électrons dans les cellules photoelectrochimiques basées sur les semiconducteurs nanocristallins SnO_2.
5. **Idriss Bedja,** Univ. of Quebec, Canada, December 1996 (Advisor: S. Hotchandani, U. Quebec à Trois Riveres)
   Photoelectrochimie des systemes a semiconducteurs nanocristallins : Spectroelectro-chimie des effets de stockage d'electrons et du processus de photosensibilisation

M.S. Thesis

1. **Sebastian Snowberger, M.S.** (Dept. of Chemical & Biomolecular Engineering, University of Notre Dame, April 2016)
   Crystal Synthesis and Optical Properties of Cesium Lead Halide Solar Cells
2. **Ben Merritt**, Department of Chemistry,U. of Notre Dame, May 2007 (Co-Advisor: O. Wiest)
   The Effect of 1.4-Diaminoanthraquinone as a Conductive Linker in Chromophore Functionalized Gold Nanoparticles

3. **Julie Peller**, Department of Chemistry,Univ. of Notre Dame, July 1999 (Co-Advisor: O. Wiest)
   Radiolytic and sonolytic degradation of 2,4-D.
4. **Di Liu**, Department of Chemistry,University of Notre Dame May 1994 (Co-Advisor: R. W. Fessenden)
   Photoelectrochemical behavior of thin CdSe and coupled TiO_2-CdSe films
5. **Brandon Daley**, (ESTEEM Program) University of Notre Dame, May 2012
   Commercialization Strategy for a Quantum Dot Solar Cell Paint Technology

Following external students have conducted majority of their Masters research at Notre Dame under my supervision. Their research was supported by the DOE funded program at Radiation Laboratory.

After completion of their research they successfully defended their thesis at their host institutions.

1. **Said Barazzouk,** U. of Quebec, Trois Riveres December 2000 (Co-Advisor: S. Hotchandani)
   Caractérisation des états excités de pinacyanol et de la cellule-photoélectrochimique utilisant le pinacyanol comme sensibilisateur"
2. **Ali Chami Khazraji**, U. of Quebec, Trois Riveres December 1999 (Co-Advisor: S. Hotchandani) *Contrôle d'agrégation du sensibilisateur organique, la mérocyanine 540 (MC 540), afin d'obtenir des cellules photoélectrochimiques efficaces*.

Current Research Collaborations

G. Hartland and M. K. Kuno -U. of Notre Dame.
Prof. Csaba Janaky, U, Szed, Hungary
Prof. Jin Ho Bang, Hanyang University, Korea
Prof. Julie Peller, Valparaiso Univ. Northwest
Prof. K. George Thomas-IISER, Trivandrum, India

Research Group (2023-2024)

Graduate Students

Gabor Szabo
Akshaya Chemmangat
Manish Mukherjee
Cintia Hazbo
Bikram Ghosh
Jacquelyn Sundstrom

Undergraduate Students

Jack Nichols (2025-)
Sara Murray (2022-)

Past Postdoctoral Associates (Current Position)

Dr. Yesuil Yiseul Yu (Nov 2022-Oct 2023), Post Doc, Gyeongsang National University
Dr. Jeffrey DuBose (May 2022-Aug 2022) Post Doc, Cal Tech
Dr. Manjeet Chhetri, (Nov 2019-Oct 2020) Post Doc, Los Almos National Lab
Dr. Jun-Sang Cho (Feb 2019-Aug 2020), Asst. Prof. Sungshin Women's University

Dr. Bobby Barker (Jan –Jul 2018), Asst. Prof.Augusta University

Dr. Gary Zaites (Jul 2015-2017) Startup Solar Co, Israel

Dr. Subila Balakrishnan (Nov 2015-2017) Asst. Prof. M.G. University, Cochin, India

Dr. M. Shanthil (Feb 2017-2018), Govt. Victoria College, Kerala India

Dr. Rabeka Alam (Aug 2013-May 2016) Asst Prof. SUNY Geneseo, New York

Dr. Kevin Stamplecoskie (May 2013-June 2015) Asst Prof. Queen's University, Canada

Dr. Christopher Tuinenga (Mar 2014- Mar 2015) Patent Attorney, Sperling & Slater, P.C.

Dr. Hyunbong Choi (Nov 2010-Feb 2014) Samsung, Korea

Dr. G. K. Ramesha (July 2012-June 2013), SABIC Technology Center, Bangalore

Dr. Pralay Santra (Mar 2011-Feb 2012) Post Doc, Stanford University

Dr. Dr. Yoonho Jun (June 2010-Dec 2011) Took a job in Utah

Dr. Alexsandra Wojcik (Aug 2008- Aug10), Returned to Poland

Dr. Jin Ho Bang (Aug 2008-Aug 2010), Asst. Professor, Hanyang Univ., Korea

Dr. Vidhya Chakrapani (Jan 2009 –Jan 2010), Assit Prof. RPI, New York

Dr. Anusorn Kongkanand (Jan 2006 – Aug 2007) Scientist, GM Research

Dr. Yochiro Matsunaga (Apr 2006- Sept 2007) AIST, Japan

Dr. Sandy Moisan (Feb 2007-July 2007) Unknown

Dr. P. K. Sudeep (July 2004-Oct 2006) Scientist, Kodak.

Dr. Girish Kumar (August 2003 – 2005) Scientist, Advanced Materials, CA

Dr. Tsutomu Hirakawa (April 2003- May 2004), Scientist, National Institute of Advanced Industrial Science and Technology (AIST, Tsukuba, Japan)

Dr. Mariko Hirakawa (Oct 2003- Dec. 03) Returned to Japan

Dr. Shailesh Sharma (April 2002-Mar 03). Scientist, National Physics Laboratory, India

Dr. Zeena S. Pillai, Research Associate (Aug 2001- Sept 03), Florida State University

Dr. Nirmala Chandrasekharan (Feb 1999- Jun 2000), Assistant Research Professor, Univ. of Maryland

Dr. K. George Thomas (1999-2000, Summers 2003, 2004, Fall 2005) Principal Scientist, Regional Research Laboratory, Trivandrum,

Dr. A. Samanta (May 1999- April 2000, 2004), Professor of Chemistry, University of Hyderabad, India

Dr. Suresh Das (Jan 1999- Dec1999), Director, NIIST, Trivandrum

Dr. K. R. Gopidas (Nov 1987-Oct 1989), Dean of Science, IISER, Trivandrum

Dr. Nada Dimitrijevic (Jul 1985-June 1987), Program Manager, DOE

Dr. Bill Ford (May 1985-Jun 1987)– SONY, Germany

Visiting Scientists

Visits enabled through independent support from home institution/research grant.

Sujay Shekhar (Fulbright Fellow, Sept 24-)

Dr. Manjeet Chhatri (November 2019-October 2020)

Mr. Tor Elmelund, DTU, Denmark (Jan1-June 30, 2019)

Prof. Geetha Balakrishna, Jain University, Bangalore, India Fulbright Scholar (Aug 2017-Feb 2018)

Prof. Jin Ho Bang, Hhanyang University, Seoul, Korea (August 2016-August 2017)

Mr. Gergely Samu, University of Szed, Hungary (April 2017- Sept 2018)

Dr. Ikeda Shingo, Osaka Municipal Technical Research Institute, Japan (April 2016-March 2017)

Mr. Sentilkumar Muthu, Anna University, Fulbright Scholar (2016-2017)

Mr. Lennart Schleper, Heidelberg Universty (Aug 2915-April 2016)

Dr. Ellen Raphael. Universidade Federal de Sao Joao del-Rai, Brazil (Nov2014-April 2015)

Prof. Santosh Haram, Fulbright Scholar, Pune University, India (Sept 2013-June 2014)

Prateesh Nair, IISER, India (Aug-Nov 2012)

Prof. J. Kim Sabbatical Leave, Korea (Dec 2012-Nov 2013)

Ms. Azusa Takai (Waseda Univ) and Ken-ichi Matsuoka (Kyushu Univ) spent 9 months during 2010 -sponsored by JSPS fellowship

Drs. M. Ashokkumar & N. Bernaudshaw (Nov.-Dec 2009) Univ. of Melbourne

Mr. Jun Zhang (Sep-2008-Aug2009) Grad. Student, Huazhong Normal University, Wuhan

Mr. Hironobu Hayashi (Sep-Nov 2008) Grad. Student, Kyoto University

Mr. Yun Hau Ng (Jun-Aug 2008) Grad. Student, Osaka University

Mr. Kensuke Takechi (Aug-2005- Jul 2007) Scientist, Toyota Central R&D, Japan

Dr. Taicheng An (July 2006- June 2007) Professor, Guangzhou Inst. of Geochem., CAS, China

Dr. Taku Hasobe (May 2007) Assist Professor, JAIST, Kanagawa Japan

Mr. T. Hasobe (2003- Dec 2005), Grad. Student, Osaka University, Japan

Dr. Raul Suarez (Fall 1997), Universidad Nacional Autonoma de Mexico (UNAM), Mexico

Dr. Hong Lee (Jan 1999- Feb 2000), Professor, Won Kwang University, Iksan 570-749, Korea

Dr. K. Vinodgopal (Regular visitor and collaborator, 1992-present), Professor, Indiana University Northwest, Gary

Dr. S. Hotchandani (Regular visitor during summer months 1992-2003) Professor, U. Quebec, Trois Riveres

Committees

Member, Kuwait Prize Selection Committee (2022)

Member, Blavatnik National Award Selection Committee (2021-2022)

Member, cSEND Leadership Team, University of Notre Dame (2010-2015)

Member, CAP committee, Department of Chemistry and Biochemistry, UND (2009-2013)

Member, College of Science Committee on Sustainability, UND (2009-present)

Member, Awards Committee, Department of Chemistry and Biochemistry, UND (2008)

Member, Safety Committee, Department of Chemistry and Biochemistry, UND (2014-)

Advisory Board Member, Center for Environmental Science and Technology, UND (2008-present)

Executive Committee Member, Materials Science & Engineering, UND (2020-)

Executive Committee Member, ND NANO Center, UND (2008-2010)

Member, Siemens Research Foundation Summer Program @UND 2002

Member, NSF-REU Summer Research, Summer Program @UND

Served as a member of the Examination Board for the oral candidacy and thesis defense of graduate students from Chemical Engineering, Civil Engineering, Physics and Chemistry Departments of University of Notre Dame and Northwestern University.

Member, New Technology Committee & Finance Committee of the Electrochemical Society

Board member of the Electrochemical Society (2000-2004)

Professional Activities

1. **Editor**

Editor-in-Chief, ACS Energy Letters (2016-present)

Deputy Editor, Journal of Physical Chemistry Letters (2008 – 2016)

Executive Editor, Journal of Physical Chemistry A/B/C (2008- 2010)

Senior Editor, Journal of Physical Chemistry (2003- 2008)

North American Editor, Research on Chemical Intermediates (2001-2003)

2. **Editorial Advisory Board:**

Journal of Physical Chemistry (2001-2003)

Langmuir (2000-2014)

Interface (1999-2013)

Chemical Reviews (2017- present)

ACS Applied Nanomaterials (2018-present)

ACS Physical Chemistry Au (2021-present)

EES Solar (2025- present)

Journal of Colloid & Interface Science (2012-present)

Research on Chemical Intermediates (1992-2001, 2004-present)

Journal of Applied Electrochemistry (2009-present)

3. **Professional Society Service**

Chairman, Fullerene, Nanotubes and Carbon Nanostructures Division, The Electrochemical Society (2002-2004)

Treasurer: Fullerene, Nanotubes and Carbon Nanostructures Division, (2004-2008)

Chairman: Fullerene Group, The Electrochemical Society (2000-2002)

Vice Chairman: Fullerene Group, The Electrochemical Society (1998-2000)

Secretary: Fullerene Group, The Electrochemical Society (1996-1998)

4. **Committees.**

Fellows Selection Committee, Electrochemical Society (2024-)

Awards and Honors Committee, Electrochemical Society (2007-2011)

Finance Committee, Electrochemical Society by the President (2003-2005)

Chair, Fellows Subcommitte, The Electrochemical Society (2011)

5. **Guest Editor.**

Israel Journal of Chemistry, Special issue on Quantum Size Particles (1993).

Research on Chemical Intermediates, Special issue on Solar Photochemistry (1994)

Research on Chemical Intermediates, Special issue on Fullerenes (1997)

Research on Chemical Intermediates, Special issue honoring Prof. M. V. George (1999)

Research on Chemical Intermediates, Special issue honoring Prof. Henry Linschitz (2002)

6. Books/Proceeding Volumes:

Environmentally Benign Catalysts M.Anpo, P. V.Kamat, eds., Springer: New York, 2010.

Nanoscale Materials, L. Liz-Marzan and P. Kamat, Kluwer Academic/Plenum Publishers, Boston, 2003

Nanostructured Semiconductor Materials- Physical, Chemical and Catalytic Aspects. P. Kamat and D. Meisel eds. Elsevier Science Publishers, 1997

Fullerenes Volumes 7, Proceedings of the Electrochemical Society Meeting, 1999

Chemistry and Physics of Fullerenes and Related Materials, Fullerenes Volumes 10 Proceedings of the Electrochemical Society Meeting, 2000

Fullerenes for the new Millennium, Fullerenes Volumes 11 Proceedings of the Electrochemical Society Meeting, 2001

The exciting world of nanocages and nanotubes, Fullerenes Volume 12, Proceedings of the Electrochemical Society Meeting, 2002

The building blocks of next generation nanodevices, Fullerenes Volume 13, Proceedings of the Electrochemical Society Meeting, 2003

Proceedings of the Symposium on Electronic and Ionic Properties of Silver Halides (1991)

7. Panel Co-Chair. *DOE Workshop on Research Opportunities in Photochemical Sciences* (February 1996)

8. Symposium Organizer/CoOrganizer.

2025 Nanostructures for Energy Conversion,243rd ECS Meeting, Boston, May 18-22
2024 Nanostructures for Energy Conversion,245rd ECS Meeting, San Francisco, May 26-30
2023 Nanostructures for Energy Conversion,243rd ECS Meeting, Boston, May 28-June 2
2022 Nanostructures for Energy Conversion,241st ECS Meeting, Vancouver, May 29-Jun 2
2021 Nanostructures for Energy Conversion,239th ECS Meeting, Chicago, May 30-Jun 4
2020 Nanostructures for Energy Conversion,237th ECS Meeting, Montreal,May 10-14
2019 Nanostructures for Energy Conversion,235rd ECS Meeting, Dallas, TX May 26-30
2018 Nanostructures for Energy Conversion,233rd ECS Meeting Seattle, May 13-May 17
2017 Nanostructures for Energy Conversion,231st ECS Meeting New Orleans,May 29-Jun2
2016 Nanostructures for Energy Conversion, 229th ECS Meeting San Diego, May 29-Jun 2
2015 Challenges in Plasmonic Photochemistry**,** 2015 Pacifichem Meeting, Honolulu, Dec 15-20
2015 Nanostructures for Energy Conversion, 227th ECS Meeting Chicago, May 24-28
2014 Nanostructures for Energy Conversion, 224th ECS Meeting Orlando, May 11-15
2013 Nanostructures for Energy Conversion, 223rd ECS Meeting Toronto, May 12-16

2012 Nanostructures for Energy Conversion, 221st ECS Meeting Seattle May 6-10

2011 Nanostructures for Energy Conversion, 219th ECS Meeting Montreal, May 1-4

2010 Nanostructures for Energy Conversion**,,** 217th ECS Meeting Vancouver, April 25-30

2010 Symposium on The Nanostructure-Enhanced Photochemical Reactions. Pacifichem meeting, Honolulu Dec 15-20

2009 First International Symposium on Graphene**.** (Spring Meeting of the Electrochemical Society, San Francisco)

2009 Symposium on Metal and Semiconductor Nanoparticles (Spring Meeting of the Electrochemical Society, San Francisco)

2008 Symposium on Interfacial Electron Transfer and Solar Energy Conversion: From Molecules to Nanomaterials, Spring meeting of the American Chemical Society, New Orleans.

2008 Symposium on Metal and Semiconductor Nanoparticles (Spring Meeting of the Electrochemical Society, Phoenix

2007 Symposium on (i) Metal and Semiconductor Nanoparticles and (ii) Nanoporous Materials (Spring Meeting of the Electrochemical Society, Chicago)

2006 Symposium on Nanotechnology, (Spring Meeting of the Electrochemical Society, Denver)

2005 Symposium on Nanotechnology, (Spring Meeting of the Electrochemical Society, Quebec City, Canada)

2004 Symposium on Nanotechnology, (Spring Meeting of the Electrochemical Society, San Antonio, TX)

2003 Gerischer Symposium on Nanostructured Semiconductor Materials and Interfaces, (Spring Meeting of the Electrochemical Society, Paris)

2003 Symposium on Nanotechnology, (Spring Meeting of the Electrochemical Society, Paris)

2002 Symposium on Nanotechnology, (Spring Meeting of the Electrochemical Society, Philadelphia)

2002 Symposium on Nanotechnology, (Fall Meeting of the Electrochemical Society, Salt Lake City)

2001 Symposium on Semiconductor and Metal Nanoclusters for Light Energy Conversion (The American Chemical Society, Chicago)

2000 Workshop Chair, 13th International Solar Photochemistry Conference, Aspen, Colorado (July 30-August 4, 2000)

1998, 99, 00, 01 Symposium on Nanoscopic Materials for Energy Conversion (The Electrochemical Society)

1996 and 1997 2nd and 3rd International Conference TiO_2 Photocatalytic Purification of Air and Water.

1994, 95, 96, 97, 98, 99, 00, 01 Fullerene Symposium on Photoexcited States (The Electrochemical Society)

1991, Symposium on Electronic and Ionic Properties of Silver Halides (The Society for Imaging Science and Technology)

9. **Panels and Workshops and Advisory Board**

GIAN Workshop on Advanced Functional Materials (sponsored by MHRD Global Initiative, India) A series of 16 Lectures and Tutorials, Shivaji University, India, October 16-20, 2023

Advisory Board member, CINE, Brazil (Jan2021-present)

Advisory Board Member, BAC-TO-FUELS, AEU Consortium (July 2019-2022)

Advisory Board Member, NEWT, NSF Center, Rice University (Jan 2019-2021)

Member, International Organizing Committee, International Solar Photochemical Conversion & Storage Meeting (IPS) 2012-2018

Member SCILOG Panel, Research Corporation (2010 –2019)

Member DOE-EFRC Review Panel 2012

NSF Solar/PV Panel on Dec. 3 & 4, 2007, Photocatalyis Panel 2015

DOE Basic Research Needs in Catalysis for Energy workshop, Washington, DC August 6-8, 2007

NSF Catalysis and Biocatalysis Panel May 15, 2007

GCEP Review Panel, Stanford University, May 4, 2007

Workshop on nanotechnology and water treatment. Rice Univ., Houston, TX, February 25-27, 2007

NSF/IC Workshop on Power Sources, Washington, DC, April 24-25, 2007

Review Panel, DOE Basic Energy Sciences, March 2007

Panel member and writer, Nanotechnology-Enabled Water Treatment Workshop, Rice University, Houston February 25-27, 2007

Panel member and writer, DOE Solar Workshop "Basic Research needs in Solar Energy Utilization", sponsored by Basic Energy Sciences, Washington, D.C. April 18-21, 2005

Panel member, 2003 EPA Grand Challenge Workshop (May 7-9, 2003)

Panel member, **Energy & Nanotechnology** organized as part of Accelerating Innovation in the 21st Century: U.S. Science & Technology, October 15-17, 2004. Invitation by Prof. R. Smalley, Rice University to participate in the round table discussions.

Panel member, Charge Transfer on Nanoscale, DOE Workshop, Santa Fe (January 2002)

Member, New Technology Committee & Finance Committee of the Electrochemical Society (2002-2005)

Board member of the Electrochemical Society (2001-2004)

Chairman, Fullerenes, Nanotubes and Carbon Nanostructures Division, The Electrochemical Society 1999-2004. Currently serving as a Treasurer of the same division (2004-2006).

Review Panel for Industrial Chair, Natural Sciences and Engineering Research Council of Canada, NSERC (March 2004)

Panel Co-Chair, *DOE Workshop on Research Opportunities in Photochemical Sciences* (February 1996)

Panel Chair, *DOE Workshop on Research Opportunities in Radiation Chemistry* (April 1998)

Workshop Chair, 13th International Solar Photochemistry Conference, Aspen, Colorado (July 30-August 4, 2000)

List of Scholarly Publications:

Books:

1. Bisquert, J.; Juárez-Pérez, E. J.; Kamat, P. V., Hybrid Perovskite Solar Cells: the Genesis and Early Developments 2009-2014. 2017: Fundació Scito, Spain. 150 pages, ISBN 978-84-947758-0-2.
2. Tao, F.; Schneider, W. F.; Kamat, P. V., Edited book "*Heterogeneous Catalysis at Nanoscale for Energy Applications"*. Wiley: 2014; p 344.
3. M. Anpo; Kamat, P. V., Edited Book, "*Environmentally Benign Photocatalysts*", 2010, Springer
4. Kamat, P. V.; Meisel, D., Edited book, "*Semiconductor Nanoclusters-Physical, Chemical and Catalytic Aspects"*. Studies in Surface Science and Catalysis. 1997, Elsevier Science: Amsterdam p474.
5. Liz-Marzan, L.; Kamat, P.V., Edited book, "*Nanoscale Materials"*. 2003, Boston: Kluwer Academic/Plenum Publishers. p499

Proceeding Volumes (Co-Edited)*:*

1. Fullerenes and Nanotubes, Materials for the New Chemical Frontier, Proceeding Volumes on Fullerenes, Nanotubes and Nanostructures, Vol. 14, The Electrochemical Society(2004)
2. Fullerenes and Nanotubes, The building blocks of next generation devices ,Proc. Volumes on Fullerenes, Nanotubes and Nanostructures, Fullerenes and Nanotubes, Vol. 13The Electrochemical Society (2003)
3. Fullerenes The exciting world of nanocages and nanotubes, Proceeding Volumes on Fullerenes, Nanotubes and Nanostructures, Vol. 12 The Electrochemical Society (2002)
4. Fullerenes: Fullerenes for the New Millennium, Proceeding Volumes on Fullerenes, Nanotubes and Nanostructures, Vol. 11 The Electrochemical Society (2001)
5. Proceeding Volumes on Fullerenes, Nanotubes and Nanostructures, **Vol. 7-10**, The Electrochemical Society

Invited Reviews (Peer Reviewed):

1. Chakkamalayath, J.; Chemmangat, A.; DuBose, J. T.; Kamat, P. V., Photon Management Through Energy Transfer in Halide Perovskite Nanocrystal–Dye Hybrids: Singlet vs Triplet Tuning. Accounts of Chemical Research 2025, 58, 1461-1472. 10.1021/acs.accounts.5c00097
2. Chen, X.; Kamat, P. V.; Janáky, C.; Samu, G. F., Charge Transfer Kinetics in Halide Perovskites: On the Constraints of Time-Resolved Spectroscopy Measurements. ACS Energy Letters 2024, 9, 3187-3203. 10.1021/acsenergylett.4c00736
3. Min, S.; Jeon, M.; Cho, J.; Bang, J. H.; Kamat, P. V., Spectroelectrochemical Insights into The Intrinsic Nature of Lead Halide Perovskites. Nano Convergence 2024, 11, 49. 10.1186/s40580-024-00459-w
4. Mathew, P.; Cho, J.; Kamat, P. V., Ramifications of Ion Migration in 2D Lead Halide Perovskites. ACS Energy Letters 2024, 9, 1103-1114 doi: 10.1021/acsenergylett.4c00093
5. Ruth, A., Okrepka, H., Kamat, P. V., Kuno, M., Thermodynamic Band Gap Model for Photoinduced Phase Segregation in Mixed-Halide Perovskites, The Journal of Physical Chemistry C, 2023 127, 18547-18559
6. DuBose, J. T.; Kamat, P. V., Efficacy of Perovskite Photocatalysis: Challenges to Overcome. ACS Energy Letters 2022, 7, 1994-2011
7. DuBose, J. T.; Kamat, P. V., Hole Trapping in Halide Perovskites Induces Phase Segregation. Accounts of Materials Research 2022, 3, 761-771

8. DuBose, J. T.; Kamat, P. V., Energy Versus Electron Transfer: Managing Excited-State Interactions in Perovskite Nanocrystal–Molecular Hybrids. Chemical Reviews 2022, 122, 15, 12475–12494 doi: 10.1021/acs.chemrev.2c00172
9. Dey, A., et al. State of the Art and Prospects for Halide Perovskite Nanocrystals, ACS Nano 2021, 15, 10775–10981.
10. Kamat, P. V.; Kuno, M., Halide Ion Migration in Perovskite Nanocrystals and Nanostructures. Accounts of Chemical Research 2021, 54, 520-531.
11. Brennan, M. C.; Ruth,A.; Kamat, P. V.; Kuno, M. Photoinduced Anion Segregation in Mixed Halide Perovskites, *Trends in Chemistry (Cell Press),* 2020, 2, 282-301
12. Brennan, M. C.; Draguta, S.; Kamat, P. V.; Kuno, M. Light-Induced Anion Phase Segregation in Mixed Halide Perovskites. *ACS Energy Lett.* **2018,** *3*, 204-213.
13. Kamat, P. V., Semiconductor Surface Chemistry as Holy Grail in Photocatalysis and Photovoltaics. Acc. Chem. Res. 2017, 50, 527-531
14. Manser, J. S.; Christians, J. A.; Kamat, P. V. Intriguing Optoelectronic Properties of Metal Halide Perovskites (Review) Chem. Rev. 2016, 116 12956–13008.
15. Manser, J. S.; Saidaminov, M. I.; Christians, J. A.; Bakr, O. M.; Kamat, P. V. Making and Breaking of Lead Halide Perovskites Acc. Chem. Res. 2016, 49, 330-338
16. Christians, J. A.; Manser, J. S.; Kamat, P. V., Multifaceted Excited State of $CH_3NH_3PbI_3$. Charge Separation, Recombination, and Trapping. J. Phys. Chem. Lett., 2015, 6, 2086-2095.
17. Kamat, P. V.; Christians, J. A.; Radich, J. G., *Quantum Dot Solar Cells. Hole Transfer as a Limiting Factor in Boosting Photoconversion Efficiency.* Langmuir, 2014, **30**, 5716–5725.
18. Hines, D. A.; Kamat, P. V., *Recent Advances in Quantum Dot Surface Chemistry.* ACS Appl Mater. & Interfaces, 2014, **6**, 3041–3057.
19. Kamat, P. V., *Quantum Dot Solar Cells. The Next Big Thing in Photovoltaics.* J. Phys. Chem. Lett., 2013, **4**, 908–918.
20. Lightcap I.V.; Kamat P.V. Graphitic Design: Prospects of Graphene-Based Nanocomposites for Solar Energy Conversion, Storage, and Sensing. *Acc. Chem.Res.* **2013**, **46**, 2235–2243
21. Kamat P.V. Manipulation of Charge Transfer Across Semiconductor Interface. A Criterion that cannot be Ignored in Photocatalyst Design. *J. Phys. Chem. Lett.* **2012**, *3*, 663-72 (Perspective article).
22. Kamat P.V. Boosting the Efficiency of Quantum Dot Sensitized Solar Cells Through Modulation of Interfacial Charge Transfer. *Acc. Chem. Res.* **2012**, *45*, 1906–15
23. Kamat, P. V. Graphene-based Nanoassemblies for Energy Conversion. *J. Phys. Chem. Lett.* **2011**, *2*, 242–251 (Perspective article).
24. Kamat, P. V.; Tvrdy, K.; Baker, D. R.; Radich, J. G. Beyond photovoltaics: semiconductor nanoarchitectures for liquid junction solar cells *Chem. Rev.* **2010**, *110*, 6664–6688.
25. Kamat, P. V., *Graphene based Nanoarchitectures. Anchoring Semiconductor and Metal Nanoparticles on a 2-Dimensional Carbon Support. J. Phys. Chem. Lett.* **2010**, *1*, 520-527 (Perspective article)
26. Kamat, P. V., *Quantum Dot Solar Cells. Semiconductor Nanocrystals as Light Harvesters.* **J. Phys. Chem. C**, 2008. *112,* 18737-18753. (**Centennial Feature Article**)
27. Kamat, P. V. *Meeting the Clean Energy Demand: Nanostructure Architectures for Solar Energy Conversion,* J. Phys. Chem. C, 2007. **111** 2834-2860 (**Feature Article**)
28. Hasobe, T.; Fukuzumi, S.; Kamat, P. V.; Murata, H. *Porphyrin based molecular architectures for light energy conversion,* Mol. Cryst. Liq. Cryst., 2007, **471**, 39-51. (Short Review article)
29. Peller, J.; Kamat, P. V. *Radiolytic Transformations of Chlorinated Phenols and Chlorinated Phenoxyacetic Acids,* J. Phys. Chem. A, 2005. **109** 9528-9535 (**Feature Article**)
30. Thomas, K. G.; George, M. V.; Kamat, P. V. *Photoinduced Electron Transfer Processes in Fullerene-Based Donor-Acceptor Systems,* Helv. Chim. Acta, 2005. **88** 1291-1308. (Short Review article).

31. Kamat, P. V.; Meisel, D., “Nanoparticles in Advanced Oxidation Processes”, *Curr Opin In Colloid Chem*., 2002, *7*, 282-287.
32. Kamat, P. V., “Photoinduced Transformations in Semiconductor-Metal Nanocomposite Assemblies”, *Pure Appl Chem,* 2002. 74, 1693-1706.
33. Stafford, U., K. A. Gray, and P. V. Kamat. “Photocatalytic degradation of organic contaminants. Halophenols and Phenols.” *Heterogeneous Chemistry Reviews* 3 (1996): 77-104
34. Kamat, P. V. “Interfacial charge transfer processes in colloidal semiconductor systems.” *Progr. React. Kinetics* 19 (1994): 277-316.
35. Kamat, P. V. “Photochemistry on nonreactive and reactive (semiconductor) surfaces.” *Chem. Rev.* 93 (1993): 267-300.

Peer Reviewed Research Articles:

1. Mukherjee, M.; Chemmangat, A.; Kamat, P. V., Hole Trapping in Lead Halide Perovskite Nanocrystal–Viologen Hybrids and Its Impact on Back Electron Transfer. ACS Nano 2025, 19, 10549-10557. 10.1021/acsnano.5c01423
2. Chemmangat, A.; Murray, S.; Kamat, P. V., Steering Energy Transfer Pathways through Mn-Doping in Perovskite Nanocrystals. Journal of the American Chemical Society 2025, 147, 4541–4551. 10.1021/jacs.4c16567
3. Szabó, G.; Kamat, P. V., Spiro-OMeTAD: Unique Redox Chemistry Driving The Hole Transport. ACS Energy Letters 2025, 10, 330-336. 10.1021/acsenergylett.4c03121
4. Chemmangat, A.; Chakkamalayath, J.; Kamat, P. V., Structural Evolution of Perovskite Nanoplatelets in Polar Solvents. ACS Materials Letters 2025, 7, 85-92. 10.1021/acsmaterialslett.4c01779
5. Chen, B.-A.; Kipkorir, A.; Ptasinska, S.; Kamat, P. V., Intercalation of quaternary ammonium cations as a key factor of electron storage in MoS2 thin films. Applied Physics Reviews 2024, 11, 10.1063/5.0208132
6. Chakkamalayath, J.; Kamat, P. V., Demystifying Triplet–Triplet Annihilation Mechanism in the CsPbI3–Rubrene–DBP Upconversion System. Journal of the American Chemical Society 2024, 146, 18095–18103. 10.1021/jacs.4c05178
7. Kipkorir, A.; Chen, B.-A.; Kamat, P. V., Anion-Driven Bandgap Tuning of AgIn(SxSe1–x)2 Quantum Dots. ACS Nano 2024, 18, 28170–28177. 10.1021/acsnano.4c07774
8. Chen, B.-A.; Rowberg, A. J. E.; Pham, T. A.; Ogitsu, T.; Kamat, P. V.; Ptasinska, S., Reactivity of Sulfur Vacancy-Rich MoS2 to Water Dissociation. The Journal of Physical Chemistry C 2024, 128, 10379-10387. 10.1021/acs.jpcc.4c01677
9. Chen, B.-A.; Dominique, N. L.; Kipkorir, A.; Camden, J. P.; Ptasinska, S.; Kamat, P. V., From Light to Dark: Dancing with Electrons in Colloidal 2D MoS_2 Nanosheets. The Journal of Physical Chemistry Letters 2024, 15, 4920-4927 DOI: 10.1021/acs.jpclett.4c00454
10. Kipkorir, A.; Murray, S.; Kamat, P. V., How Effective Are Sub-Bandgap States in $AgInS_2$ Quantum Dots for Electron Transfer? Chemistry of Materials 2024, DOI: 10.1021/acs.chemmater.4c00263
11. Yu, Y.; Kipkorir, A.; Choi, M. Y.; Kamat, P. V., Photocatalytic Membrane for Hydrogen Evolution: Directed Electron and Hole Transfer across Pt–$AgInS_2$–Nafion. ACS Materials Letters 2024, 1856-1862 DOI: 10.1021/acsmaterialslett.4c00322
12. Chakkamalayath, J.; Martin, L. E.; Kamat, P. V., Energy Cascade in Halide Perovskite-Multiple Chromophore Films: Direct versus Mediated Transfer. ACS Photonics 2024, 11, 1821-1831 doi: 10.1021/acsphotonics.4c00354
13. Chemmangat, A, Chakkamalayath, J., DuBose, J. T., Kamat, P. V. Tuning Energy Transfer Pathways in Halide Perovskite–Dye Hybrids through Bandgap Engineering, Journal of the American Chemical Society, 2024, 146, DOI: 10.1021/jacs.3c12630
14. Szabó, G., Kamat, P. V., How Cation Migration across a 2D/3D Interface Dictates Perovskite Solar Cell Efficiency, ACS Energy Letters, 2024, 9, 193-200 DOI: 10.1021/acsenergylett.3c02503

15. Kipkorir, A., Ealey, E., Yu, Y., Kamat, P.V., $AgInS_2$-Embedded Photocatalytic Membrane: Insights into the Excited State and Electron Transfer Dynamics, Langmuir, 2024, 40, Article ASAP, DOI: 10.1021/acs.langmuir.3c03044
16. Yu, Y., Kipkorir, A., Choi, M. Y., Kamat, P.V., Directional Electron Transfer across In2S3/ZnS-Embedded Photocatalytic Membranes ACS Applied Energy Materials Article 2024, 6, DOI: 10.1021/acsaem.3c02716
17. Chakkamalayath, J., Martin, L. E., Kamat, P. V. Extending Infrared Emission via Energy Transfer in a CsPbI3–Cyanine Dye Hybrid, The Journal of Physical Chemistry Letters 2024, 15, 401-407, DOI: 10.1021/acs.jpclett.3c03144
18. Mathew, P. S., Kamat, P. V., Cation Migration in Physically Paired 2D and 3D Lead Halide Perovskite Films, Adv. Opt. Mater., 2024, Art. No. 202300957 https://doi.org/10.1002/adom.202300957
19. DuBose, J. T., Christy, A., Chakkamalayath, J., Kamat, P. V., Trap or Triplet? Excited–State Interactions in 2D Perovskite Colloids with Chromophoric Cations, ACS nano 17 (19), 19052-19062, 2023
20. Hiott, N., Chakkamalayath, J., Kamat, P. V., Reversible Phase Transformation of Colloidal 2D Lead Halide Perovskite Platelets under Photoirradiation, ACS Materials Letters, 2023, 5, 2614-2620
21. Ruth, A., Okrepka, H., Kamat, P. V., M Kuno, M. Thermodynamic Band Gap Model for Photoinduced Phase Segregation in Mixed-Halide Perovskites, The Journal of Physical Chemistry C 127 (37), 18547-18559
22. Chakkamalayath, J., Kamat, P. V., Directing Singlet Excited Energy Flow in Rubrene-Perylene Dye (DBP) Films, The Journal of Physical Chemistry C,2023, 127 (33), 16312-16318
23. Kipkorir, A.; Jin, X. Gao, H.; Kamat, P. V., Photoinduced electron transfer across the polymer capped $CsPbBr_3$ interface in a polar medium, J. Chem. Phys. 2023, 158, Art. No. 144702. doi: 10.1063/5.0143920
24. DuBose, J. T.; Kamat, P. V. How Pendant Groups Dictate Energy and Electron Transfer in Perovskite–Rhodamine Light Harvesting Assemblies, Journal of the American Chemical Society 2023, 145, 4601–4612 doi:10.1021/jacs.2c12248.
25. Chakkamalayath, J.; Hiott, N.; Kamat, P. V., How Stable Is the 2D/3D Interface of Metal Halide Perovskite under Light and Heat? ACS Energy Letters 2023, 8, 169-171 doi: 10.1021/acsenergylett.2c02408
26. Chakkamalayath, J.; Szabó, G.; DuBose, J. T.; Kamat, P. V., Excited State and Transient Chemistry of a Perylene Derivative (DBP). An Untold Story. The Journal of Physical Chemistry A 2023, 127, 99–106 doi: 10.1021/acs.jpca.2c06904
27. Mathew, P. S.; Szabó, G.; Kuno, M.; Kamat, P. V., Phase Segregation and Sequential Expulsion of Iodide and Bromide in Photoirradiated Ruddlesden–Popper 2D Perovskite Films. ACS Energy Letters 2022, 7, 3982-3988 doi: 10.1021/acsenergylett.2c02026
28. DuBose, J. T.; Szabó, G.; Chakkamalayath, J.; Kamat, P. V., Excited-State Transient Chemistry of Rubrene: A Whole Story. The Journal of Physical Chemistry A 2022,126, 7147-7158 doi: 10.1021/acs.jpca.2c04499
29. Chen, B.-A.; Ptasinska, S.; Kamat, P. V., Metal Cocatalyst Dictates Electron Transfer in Ag-Decorated MoS_2 Nanosheets. *The Journal of Physical Chemistry C* 2022, 129, 11907–11914 doi: 10.1021/acs.jpcc.2c03585
30. Kipkorir, A.; Kamat, P. V., Managing Photoinduced Electron Transfer in $AgInS_2$-CdS Heterostructures. The Journal of Chemical Physics 2022, 156, Art. No. 174703 doi: 10.1063/5.0090875
31. Chakkamalayath, J.; Hartland, G. V.; Kamat, P. V., Photoinduced Transformation of $Cs_2Au_2Br_6$ into $CsPbBr_3$ Nanocrystals. The Journal of Physical Chemistry Letters 2022, 13, 2921-2927 doi: 10.1021/acs.jpclett.2c00473

32. Cho, J.; Mathew, P. S.; DuBose, J. T.; Kamat, P. V., Photoinduced Halide Segregation in Ruddlesden–Popper 2D Mixed Halide Perovskite Films. Advanced Materials 2022, 2105585. doi: 10.1002/adma.202105585
33. DuBose, J. T.; Christy, A.; Chakkamalayath, J.; Kamat, P. V., Transformation of Perovskite Nanoplatelets to Large Nanostructures Driven by Solvent Polarity. ACS Materials Letters 2022, 4, 93-101. doi: 10.1021/acsmaterialslett.1c00663
34. Costantino, F.; Gavioli, L.; Kamat, P. V., Bipolar CdS/Pd Photocatalytic Membrane for Selective Segregation of Reduction and Oxidation Processes. ACS Physical Chemistry Au 2022, 2. doi: 10.1021/acsphyschemau.1c00035
35. DuBose, J. T.; Kamat, P. V., Directing Energy Transfer in Halide Perovskite–Chromophore Hybrid Assemblies. Journal of the American Chemical Society 2021, 143 (45), 19214–19223. doi: 10.1021/jacs.1c09867
36. Kipkorir, A.; DuBose, J.; Cho, J.; Kamat, P. V., CsPbBr3–CdS Heterostructure: Stabilizing Perovskite Nanocrystals for Photocatalysis. Chemical Science 2021, 12, 14815-14825. doi: 10.1039/D1SC04305F
37. Chakkamalayath, J.; Hartland, G. V.; Kamat, P. V. Light Induced Processes in $CsPbBr_3$–Au Hybrid Nanocrystals: Electron Transfer and Expulsion of Au, J. Phys. Chem. C 2021, 125, 17881-17889.
38. Mathew, P. S.; DuBose, J. T.; Cho, J.; Kamat, P. V. Spacer Cations Dictate Photoinduced Phase Segregation in 2D Mixed Halide Perovskites, ACS Energy Letters 2021, 6, 2499-2501.
39. Cho, J.; DuBose, J. T.; Mathew, P. S.; Kamat, P. V. Electrochemically induced iodine migration in mixed halide perovskites: suppression through chloride insertion, Chemical Communications 2021, 57, 235-238.
40. DuBose, J. T.; Mathew, P. S.; Cho, J.; Kuno, M.; Kamat, P. V. Modulation of Photoinduced Iodine Expulsion in Mixed Halide Perovskites with Electrochemical Bias, J. Phys. Chem. Lett. 2021, 12, 2615-2621.
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43. Zaiats, G.; Ikeda, S.; Kamat, P. V. Optimization of the electron transport layer in quantum dot light-emitting devices, NPG Asia Materials 2020, 12, Article No. 57.
44. Cho, J.; Kamat, P. V. Photoinduced Phase Segregation in Mixed Halide Perovskites: Thermodynamic and Kinetic Aspects of Cl–Br Segregation, Advanced Optical Materials 2020, 8, Art. no. 2001440.
45. Cho, J.; DuBose, J. T.; Kamat, P. V. Charge Carrier Recombination Dynamics of Two-Dimensional Lead Halide Perovskites, J. Phys. Chem. Lett. 2020, 11, 2570-2576.
46. Mathew P.S.; Samu, G. F.; Janaky, C.; Kamat, P. Iodine (I) Expulsion at Photoirradiated Mixed Halide Perovskite Interface. Should I Stay or Should I Go, ACS Energy Lett, 2020, 5, 1872–1880.
47. Cho, J.; DuBose, J. T.; Le, A. N. T., Kamat., P. V. Suppressed Halide Ion Migration in 2D Lead Halide Perovskites, ACS Materials Lett. 2020, 2, 565-570
48. DuBose, J. T.; Kamat, P.V. Surface Chemistry Matters. How Ligands Influence Excited State Interactions between CsPbBr3 and Methyl Viologen, J. Phys. Chem. C.2020, 124, 12990-12998
49. Elmelund, T.; Seger, B.; Kuno, M.; Kamat, P. V. How Interplay between Photo and Thermal Activation Dictates Halide Ion Segregation in Mixed Halide Perovskites, ACS Energy Lett. 2020, 5, 56-63.
50. Kobosko, S. M.; DuBose, J. T.; Kamat, P. V. Perovskite Photocatalysis. Methyl Viologen Induces Unusually Long-Lived Charge Carrier Separation in CsPbBr3 Nanocrystals, ACS Energy Letters 2020, 5, 221-223.
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54. Balog, Á.; Samu, G. F.; Kamat, P. V.; Janáky, C. Optoelectronic Properties of CuI Photoelectrodes, J. Phys. Chem. Lett. 2019, 10, 259-264.
55. Muthu, S.; Zaiats, G.; Sridharan, M. B.; Kamat, P. V. Influence of Plasmonic CuxS Interfacing Layer on Photovoltaic Performance of CIZS Quantum Dot Sensitized Solar Cells, J. Electrochem. Soc. 2019, 166, H3133-H3137.
56. Scheidt, R. A.; Atwell, C.; Kamat, P. V. Tracking Transformative Transitions: From CsPbBr3 Nanocrystals to Bulk Perovskite Films, ACS Materials Letters 2019, 1, 8-13.
57. Abbas, M. A.; Yoon, S. J.; Kim, H.; Lee, J.; Kamat, P. V.; Bang, J. H. Ag(I)-Thiolate-Protected Silver Nanoclusters for Solar Cells: Electrochemical and Spectroscopic Look into the Photoelectrode/Electrolyte Interface, ACS App. Mater. & Interfaces 2019, 11, 12492-12503.
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65. Kobosko, S. M.; Kamat, P. V. Indium-Rich AgInS2–ZnS Quantum Dots—Ag-/Zn-Dependent Photophysics and Photovoltaics, J. Phys. Chem. C 2018, 122, 14336-14344.
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14. Kamat, P. V. *Harvesting photons with carbon nanotubes,* **Nanotoday**, 2006. **1** 20-27. (Invited Feature Article)
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17. Kamat, P. V., "*Metal Nanoparticles. How Noble Are They in the Light?"* IAPS News Letter, 2000. *23 (November issue)*, 34-42.
18. Kamat P. V. and K.-D. Asmus, "*Photoexcited Fullerenes*", *Interface*, *5* (1996): 22-25
19. P.V. Kamat, "*Semiconductor Nanoparticles*", *ISRAPS Bulletin*, 7 (1996):.2-10
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21. P. V. Kamat, "Photochemical Solar Cells. A successful marriage between semiconductor nanoclusters and excited dyes.", IAPS Newsletter 19 (1996): 14-23.
22. Kamat, P. V. "Tailoring Nanostructured Semiconductor Films." *CHEMTECH* (1995): June: 22-28.
23. Kamat, P. V. "What makes semiconductor colloids unique as photocatalysts." *Spectrum* 6 (1993) 14-20

SEMINAR PRESENTATIONS (2024-2005)

Michigan Technological University Virtual Seminar, February 2
Ten Steps to Make Your Scientific Publication Even More Effective

Chemistry Department Seminar, Northwestern University, April 18
Ion Migration in Metal Halide Perovskites: Implications for Solar Cell Stability

BASF-ICIQ seminar, Institute of Chemical Research of Catalonia (ICIQ, Tarragona, Spain, Sep 13
Efficacy of Photocatalysis for Solar Fuel generation.How Electron Transfer Rates Control Net Conversion Efficiency
Mastering the Art of Scientific Publication

Seminars at Department of Inorganic Technology, University of Chemistry and Technology Prague Sep 19, 20
Light energy conversion with semiconductor nanostructures, from fundamentals to applications
Harvesting light energy with perovskite nanocrystals. Energy versus Electron transfer
Electrocatalytic and photocatalytic processes for energy applications
How to make your next paper even more effective

C N R Rao Annual Materials Lecture at JNCASR, Bangalore on December 12, 2024
Ion migration in metal halide perovskites and its impact on solar cell stability

Institute Colloquium, National Institute of Science Education and Res. Bhubaneswar, India, Dec 19
Mastering the Art of Scientific Publication

Michigan Technological University Seminar, February 2, 2024
Ten Steps to Make Your Scientific Publication Even More Effective

Chemical and Biological Engineering Department Seminar, Northwestern University, April 18, 2024
Ion Migration in Metal Halide Perovskites: Implications for Solar Cell Stability

GICAN Distinguished Seminar, The University of Newcastle, Newcastle, UK, January 23, 2023 (Virtual)
Challenges in photocatalysis and electrolysis. Why seeing is not always believing

Chemistry Colloquium, Bowling Green State University, OH, April 12, 2023
Photoinduced halide migration in metal halide perovskites
Will AI make a paradigm shift in scientific publishing?

Materials Science & Engineering Seminar, Purdue University, September 18, 2023
Light-Triggered Ion Movement in Metal Halide Perovskites: Implications for Solar Cell Stability

Materials Chemistry Seminar, University of Wisconsin, Madison, October 5, 2023
Tuning Metal Halide Perovskite-Molecular Hybrids for Light Energy Conversion

Edward M. Eyring Lecture, University of Utah, Salt Lake City, October 13, 2023
Directing the Flow of Energy and Electrons in Metal Halide Perovskite-Molecular Hybrids

Chemistry Department Seminar, Gyeongsang National University (GNU), Korea, October 31
Avoiding pitfalls in Electrocatalysis and Photocatalysis
Mastering the art of Scientific publication

Bose Colloquium, S. N. Bose National Centre for Basic Sciences,, Kolkata, Dec 20, 2023
Directing Singlet and Triplet Energy Transfer in Semiconductor-Molecular Hybrids

Indian Association of Cultivation of Science (IACS) Seminar, Kolkata, India, December 21, 2023
PhD and Beyond

STEP Graphene Seminar (Virtual) Feb 3, 2022
(organized by MITRE as part of the Science and Technology Expert Partnership (STEP))
Graphene and Beyond. 2D Hybrid Materials for Energy Conversion and Storage

Mechanical Engineering Department, Iowa State University, Ames, Iowa, April 26, 2022
Perovskite Photocatalysis. Tracking Electron Transfer at CsPbBr3 Nanocrystal Interface

Materials for Energy, ACS Applied Materials & Interfaces Webinar (Virtual) May 3, 2022
Overcoming the Challenges in Perovskite Photocatalysis

News in Nanocrystals (NiNC) seminar series, June 22, 2021 (Virtual)
How to Make Your Next Paper Scientifically Effective

MSE Virtual Seminar, UC Davis, CA, September 28, 2021
Revealing the Mystery of Halide Ion Mobility in Halide Perovskites
The Art of Scientific Publication (How to make your next paper effective?)

Ariel University, Israel, October 20, 2021
Impact of Halide Ion Mobility on the Stability of Halide Perovskites

Institute of Materials Research and Engineering (IMRE), Singapore, October 12, 2021
How to Compose a Scientifically Effective Publication

American University of Beirut (AUB), October 8, 2020
PhD and Beyond: Laying the Foundation for a Successful Career

University of Victoria, Canada, Virtual Chemistry Department Seminar, October 19, 2020
Revealing the Mystery of Halide Ion Mobility in Metal Halide Perovskites

University of Kentuky, Knoxville, TN, February 18, 2020
Perovskite Photovoltaics. Visualizing Halide Ion Mobility in Mixed Halide Perovskites

Indian Institute of Technology (IIT), New Delhi, 6th February 2019
Quantum Dot and Perovskite Solar Cells

University of Perugia, Italy, May 16 2019
Opportunities and Challenges in Perovskite Photovoltaic Research.

National University of Singapore, Department of Chemical and Biomol. Eng., Singapore, June 25, 2019
How Semiconductor Nanostructures Are Defining Light Energy Conversion. From Quantum Dots to Perovskites

Emory University, Chemistry Seminar, Atlanta, GA, February 16, 2018
Intriguing Excited State Chemistry of Lead Halide Perovskites

University of Colorado, Boulder, CO, Chemistry Department Colloquium April 2, 2018
Meeting the Clean Energy Demand with Nanotechnology

Imperial College, London, UK, Chemistry Dept Seminar, March 12& 13, 2018
Lead Halide Perovskites. Looking Beyond the Hype
How to write an Effective Scientific Paper

Nanjing Technology University, Nanjing, China August 2, 2018
How to write an Effective Scientific Paper

University of Cordoba, Cordoba, Argentina, Chemistry Colloquium, October 2
Nanostructures for Energy Conversion - quantum dot solar cells, perovskite solar cells
How to make your scientific paper effective

University of Chicago, Molecular Science & Engineering Seminar, October 17, 2018
Mixed Halide Lead Perovskite For Photovoltaics: A Boon or Bane?

Brookhaven National Laboratory, Long Island, NY. Nov. 1, 2018
Intricacies of Halide Ion Movement in Mixed Halide Lead Perovskites

Indian Institute of Science, Bangalore, Solid State Chemistry Seminar, December 4 2018
Recent Trends in Perovskite Photovoltaic Research

Institute of Nano Science & Technology, Mohali (India) Dec 12-13, Mohali, India Distinguished Langmuir Lecture
Lead Halide Perovskites for Next Generation Photovoltaics
How to write an Effective Scientific Paper

Indian Institute of Science, Bangalore, Chemical Science Seminar, December 19,
Meeting the Clean Energy Demand with Nanotechnology

Chemistry Seminar, Florida State University, Tallahassee, FL, February 24, 2017
Intriguing Excited State Chemistry of Lead Halide Perovskites

2017 Mitsch Lecture, Hamline University, ST. Paul, MN April 20-21, 2017
Meeting the Clean Energy Demand with Nanotechnology

Nanjing Technolgy University, Nanjing, China September 22, 2017
Quantum Dot Solar Cells

Rice University, Chemistry Dept of Chemistry Seminar, Houston, October 11, 2017
Lead Halide Perovskites. Looking Beyond the Hype

Columbia University, Department of Chemical Engineering Seminar, October 17, 2017
Unraveling the Mystique of Mixed Halide Lead Halide Perovskites

University of Connecticut, Storrs, Distinguished Seminar at Chemistry Department, October 18 and 19, 2017
How to make your next paper scientifically effective?

Intricacies of Lead Halide Perovskites

Indian Institute of Science, Bangalore, Centenary Seminar, December 12 and 19, 2017
Meeting the Clean Energy Demand with Nanotechnology

Indian Association for Cultivation of Science (IACS), Kolkata, M. N. Saha Memorial Lecture, December 13, 2017
Lead Halide Perovskites for Light Energy Conversion

S. N. Bose Institute, Kolkata, Distinguished Bose Colloquium December 14, 2017
Lead Halide Perovskites for Next Generation Photovoltaics

2016- GIAN Workshop Lectures, National Institute of Technology, Surathkal, India, Oct 5-9, 2016
A series of sixteen lectires on Advanced Functional Meterials for Energy Conversion

Ball State University, Muncie, Indiana, Sept 1, 2016
Lead Halide Hybrid Perovskites as Efficient Light Energy Harvsters

2015-2016 Spinks Lecture Series, University of Saskatchewan, Canada, April 28-29, 2016
Organic Metal Halide Perovskites for Next Generation Photovoltaics
Beyond Plasmonics. Light Harvesting Properties of Metal Nanoparticles and Clusters

2015 Mahoney Seminar in the Department of Chemistry at the University of Massachusetts Amherst, November 19, 2015
Organic Metal Halide Perovskites for Next Generation Photovoltaics

University of Texas at Austin, Materials Science Institute/Mechanical Engineering October 22, 2015
Nanostructured Materials for Light Energy Conversion

University of Paris, Diderot, Levoisier Lectures, Sept 28-Oct 1 2015
Semiconductor QDs and Perovskites for Next generation Photovoltaics
Graphene Oxide based Multifunctional Catalyst Mat
Looking Beyond Plasmonics. Light Harvesting Properties of Metal Nanoparticles and Clusters

University of Texas at Austin, Chemical Engineering Grad Student Seminar April, 28, 2015
Next Generation Photovoltaics with Organic Metal Halide Perovskites

Harvard University, Applied Physics Colloquium, April 3, 2015
Quantum Dots to Perovskites. Exploring New Materials for Next Generation Solar Cells

University of Lund, Sweden, March 12, 2015
Making Electrons Cheaper with Next Generation Photovoltaic Materials

University of California at Berkeley October 17, 2014
Quantum Dots and Organic-Metal Halide Perovskites for Transformative Photovoltaics

University of Florida, Gainesville, September 16, 2014
Transformative Photovoltaics with Quantum Dots and Organic-Metal Halide Perovskites

Marquette University, September 12, 2014
Quantum Dots and Organic-Metal Halide Perovskites for Next Generation Solar Cells

University of California, Riverside, May 19, 2014
Emergence of Quantum Dots and Organometal Halide Perovskites in Thin Film Photovoltaics.

Case Western University, May 2, 2014

Quantum Dots and Organometal Halide Perovskites for Thin Film Photovoltaics

Temple University April 3, 2014
Making Electrons Cheaper. Quantum Dots and Organometal Halide Perovskites

University of North Carolina at Chapel Hill April 2, 2014
Light Energy Conversion with Semiconductor Quantum Dots and Organometal Halide Perovskites

University of Colorado, Boulder April 22, 2014
Thin Film Photovoltaics with Quantum Dots and Organometal Halide Perovskites

Rutgers University, February 14, 2013
Quantum Dot Architectures for Next Generation Solar Cells

North Texas University, Dallas, March 1, 2013
Quantum Dot Solar Cells. Next Big Thing in Photovoltaics?

Michigan State University, April 19, 2013
Semiconductor Nanostructures for Light Energy Conversion

University of Illinois, Urbana-Champaigne,Inorganic/Materials/Physical Chemistry seminar, May 1, 2013
Quantum Dot Architectures for Next Generation Photovoltaics

McGill University, Canada May 14, 2013
Nanostructure Architectures for Next Generation Photovoltaics

Korea Advanced Institute of Science and Technology, Daejeon, Korea, July 5, 2013
Chasing the Photovoltaic Race with Quantum Dot Solar Cells

Virginia Tech, Blacksburg, Virginia, Chemistry Department seminar September 6, 2013
Semiconductor Quantum Dots and Light Energy Conversion

EPFL, in Lausanne, Switzerland Institute of Chemical Sciences and Eng., , Oct 10, 2013
Harvesting Photons with Semiconductor Quantum Dots

Purdue University, Chemistry Department and Birck Nanotechnology Center joint seminar. March 16
Designing next generation solar cells with quantum dot architectures.

University of Pittsburgh, Pittsburgh, PA, Chemistry Department Seminar April 26
Light energy conversion with nanostructure assemblies

Iowa State University, Ames, IA, Chemistry Department Seminar, April 27
Quantum dot solar cells

Royal Institute of Technology, Stockholm, Sweden. May 28-29
Lecture series on nanotechnology and energy conversion

Hong Kong, University of Science and Technology. June 28-29
Nanostructure architectures for light energy conversion
Publish or perish

CTO Solar Print Ltd. Dublin, Ireland. August 31
Designing next generation solar cells with semiconductor quantum dots

Georgia Institute of Technology, School of Materials Science & Engineering Seminar. September 10

Semiconductor quantum dots for next generation photovoltaics

Pennsylvania State University, University Park, PA. Physical Chemistry Seminar, September 11
Quantum dot solar cells

Indian Institute of Technology, Kanpur, India. ACS India Outreach Seminar October 8
Here comes the sun. Exploiting semiconductor quantum dots for next generation solar cells

Hokkaido Univ Sapporo, Japan, Chemistry Department seminar November 8
Many Faces of Gold. Charge Equilibration versus Plasmonic Effects in Metal-Semiconductor Nanocomposites

Toin University of Yokohama, Yokohama, Japan. November 10
Quantum dot-based and sensitized photovoltaic cells; its relation to artificial photosynthesis

Nagoya University, Department of Crystalline Materials Science seminar, Nagoya, Japan, Nov. 16
Nanostructure architectures for light energy conversion

University of Miami, Chemistry Department Miami, Florida, February 24, 2012
Tapping Semiconductor Quantum Dots for Next Generation Solar Cells

Naval Research Laboratory, Chemistry Division on February 16, 2012
Quantum Dot Architectures for Next Generation Solar Cells

Jawaharlal Nehru Advanced Scientific Education & Research, Bangalore, India, Jan 9, 2012
Recent Advances in Quantum Dot Solar Cells Research

Indian Institute of Science, Solid State Chemisitry Unit , Seminar, January 6, 2012
Nanostructure Assemblies for Light Energy Conversion

National Institute for Interdisciplinary Science & Technology, Trivandrum, Seminar Jan 5, 2012
Quantum Dot Solar Cells

Indian Institute of Scientific Education and Research (IISER), Trivandrum, India, January 4, 2012
Role of Metals in Semiconductor Assisted Photocatalysis

National Chemical Laboratory, Pune, India, December 22, 2012
Carbon nanostructures for energy conversion

Pune University, Pune, India December 22, 2011
Role of Metal Co-catalyst in Semiconductor Assisted Photocatalysis

University of Louisville September 23, 2011 Chemical Engineering Department Seminar
Nanostructure Assemblies for Next Generation Solar Cells
CNRS - Universite Lyon 1, Departmental Seminar, July 22, 2011
Metals in Semiconductor Assisted Photocatalysis

Centre Microélectronique de Provence, Ecole Nationale Supérieure des Mines de Saint Etienne, July 21, 2011
Nanostructure Assemblies for Light Energy Conversion

Marie Curie University, Paris, July 4-31, 2011. *Lecture Series.*
Strategies to Harvest Light Energy with Semiconductor Nanostructures
Controlling photoinduced charge transfer processes at semiconductor interface
Graphene based assemblies for energy conversion
Understanding the role of metals in semiconductor assisted photocatalysis
Publish or Perish (The art of scientific writing)

University of Texas at Austin, TX May 12, 2011 Chemistry Department Seminar
Manipulation of Photoinduced Charge Transfer Events in Semiconductor Nanoassemblies

University of California Davis, May 17, 2011, Chemistry Department Seminar
Quantum Dot Solar Cells

University of California Riverside, March 30, 2011 Chemical Engineering Department Seminar
Light Energy Conversion with Semiconductor Quantum Dots

Ottawa University, Canada, Chemistry Department seminar, March 16, 2011
Strategies to Harvest Light Energy with Semiconductor Nanostructures

Kansas State University, Manhattan, Kansas, on February 17, 2011 (PLU Distinguished Speaker)
Semiconductor Nanostructures for Next Generation Solar Cells

Jawaharial Nehru Center for Adv. Sci. Research, India. October 5-6, 2010
Carbon nanostructures for energy conversion.
Publish or perish: Ethics of scientific publication.

Kyoto University September 1-7, 2010
How to communicate your research effectively.
Light energy conversion with nanostructured semiconductor.
Solar cells by design. Manipulating charge transfer at semiconductor interface

National Taiwan University, Taiwan. August 3, 2010
How to communicate your research effectively?
Solar cells by design, manipulating charge transfer at nanostructure interface

National Chung Cheng University, Dept. Chem. Biochem., Minhsiung Township, Taiwan. August 2, 2010
Manipulation of semiconductor nanoarchitectures for light energy conversion

Univ. Massachsetts, Amherst, IGERT Seminar, December 3, 2009
Solar Cell By Design. Manipulating Charge Transfer at Nanostructure Interfaces

Hokkaido University, Chemistry Department Seminar, October 29, 2009
Solar Cells by Design. Harvesting Light Energy with Nanostructure Assemblies.

University of Wisconsin, Madison, Chemistry Department seminar, October 15, 2009
Got Nanotubes? 1-D Architecture based light harvesting assemblies for next generation solar cells.

Indiana University, Bloomington, IN Chemistry Department Colloquium, September 22, 2009
Nanostructure Architectures for Next generation Solar Cells.

Northern Illinois University , DeKalb, IL, Chemistry department Colloquium, September 14, 2009
Nanostructure Architectures for solar Energy Conversion,

Washington University in St. Louis, Department of Energy, Environmental & Chemical Engineering Departmental seminar, September 11, 2009.
Solar Cells by Design. Harvesting Light Energy with Nanostructure Assemblies.

Osaka University, SANKEN (The Institute of Scientific and Industrial Research), September 2, 2009
Carbon Nanostructures for Energy Conversion..

University of Castilla La Mancha, Toledo Spain, May 15, 2009.
Photoinduced charge transfer processes in CdSe quantum dot based composites

Indian Association for Cultivation of Science, Kolkata, India, December 16-19, 2008.
(i) *Solar energy - beyond the hype;*
(ii) Semiconductor nanocrystals as light harvesters
(iii) Keys to succeed in research (A preparatory talk for young researchers)

Indian Institutes of Science Education and Research*,* Trivandrum, India *Nanostructured materials for solar energy conversion and beyond*, November 29, 2008.

National Institute for Interdisciplinary Science and Technology. Trivandrum *Harvesting light energy with semiconductor nanocrystals*, November 28, 2008

Central Electrochemistry Research Institute, Karaikudi, India, Diamond Jubilee Lecture, *Meeting clean energy challenge with nanotechnology*, December 1, 2008.

Rensselaer Polytechnic Institute, Materials Research Center, Troy, NY, *Solar cell by design, nanostructure assemblies as light harvesters*, November 5, 2008.

Institute for Organic Synthesis and Photoreactivity, National Research Council Campus, Bologna, Italy, *Harvesting Light Energy with Nanostructure Architectures*.

University of Michigan-Dearborn, Chemistry Department Colloquium, September 26, 2008, *Semiconductor Architectures for Next Generation Solar Cells*

Cornell University, Center for Nanoscale Systems, *Nanostructure architectures for next generation solar cells*, September 18, 2008.

Carnegie Mellon University, Chemical Engineering Department Colloquium, Pittsburgh, PA *Nanoscience opportunities for light energy conversion*, May 1, 2008.

University of Washington, Department of Chemistry Seminar, *Nanostructure Architectures for Light Energy Conversion*. , April 30, 2008.

University of Toronto, Toronto, Canada. *Nanostructure Architectures for Light Energy Conversion* Chemistry Department Colloquium, November 16, 2007

University of Colorado, Boulder, CO *Quantum Dot Architecture for Solar Cells,* Physical Chemistry/Chemical Physics Colloquium, November 2, 2007

Univ. North Carolina, Charlotte *Semiconductor Quantum Dot Architectures for Solar Energy Conversion* Chemistry Department Colloquium

Indian Association for the Cultivation of Science, Kolkata, India, , (i) *Meeting Clean Energy Demand with Nanotechnology,* (ii) *Nanotube Architecture for Solar Cells and Fuel Cells*," and (iii) *Quantum Dot Solar Cells*. Rajendralal Mitra Professorship Lecture, September 25-28, 2007

Indian Institute of Science, Bangalore
(i) *Nanostructure Hybrid Architectures for Solar Energy Conversion* and (ii) *Scientific Publications – Issues, and Ethics*." Department Seminar, October 3, 2007

Andrews University, Berrien Springs, MI, *Harvesting Light Energy with Carbon Nanotube-Semiconductor Hybrids* Chemistry Department Seminar, September 4, 2007

University of Illinois, Urbana Champaign, "Nanostructure Architectures for Energy Conversion" Frederick Seitz Materials Research Laboratory Seminar, May 24, 2007

Ohio State University, Analytical Division Seminar **"**Molecularly Wired Hybrid Assemblies for Solar Energy Conversion", May 26, 2006

Toyota Central, R& D, Nagoya, Japan "Meeting Energy Demand. Nanostructure Architectures for Solar Energy Conversion", March 29, 2006

The US-Egypt workshop on Nanostructured Materials and Nanotechnology, Alexandria, "Meeting Energy Demand: Nanostructured Hybrid Assemblies for Catalysis and Solar Cells" November 11-15, 2005

Univ. of Missouri, Rolla Graduate Seminar, Department of Chemical Engineering **"**Meeting Energy

Demand through Nanotechnology**”** October 4, 2005

The Clean Energy Challenge: “Role of Solar Cells and Fuel Cells in the 21st Century” Environmental Engineering Seminar, University of Notre Dame, September 29, 2005

Panel Discussions, BES Solar Workshop, Washington, D.C. April 18-21, 2005

Western Michigan University, Kalamazoo, Chemistry Department Seminar **“**Energy Challenge and Nanotechnology**”**, March 27, 2005

Rutgers University, Colloquium, Chemistry Department, “Ordered Nanoassemblies for Light Energy Conversion”, March 4, 2005

Conference Presentations (2025-2012)

2025

ACS Spring 2025 Meeting, March 23-27
Directing Energy Transfer Pathways in Halide Perovskite-Molecular Dye Assemblies (Invited)
How electron transfer rates control net conversion efficiency of photocatalytic processes (Invited)
247th Meeting of the Electrochemical Society, Montreal May 18-22
Spectroelectrochemical Insights into the Working of Perovskite Solar Cell (Invited)
Iodine Chemistry Dictating Stability of Metal Halide Perovskites (Invited)

2024

Spring Meeting of the American Chemical Society, New Orleans, March 17-21
Evolution of Semiconductor Nanostructures in Light Energy Conversion (Award Lecture)
Vectorial charge rtansport across a photocatalytic membrane (invited)
Tracking Energy Transfer Pathways in Halide Perovskite-Rhodamine Dye Assemblies (invited)
Light Energy Conversion with Halide Perovskite-Molecular Hybrids (invited)
Oklahoma Photovoltaics Research Institute Symposium, Tulsa, Oklohama April 20,1024
Ion Migration in Metal Halide Perovskites and Its Impact on Solar Cell Performance (Keynote lecture)
245th ECS Meeting of the Electrochemical Society, San Franscisco May 26- May 30
Ion migration Influencing Perovskite Solar Cell Performance and Stability
Semiconductor Nanostructures for Light Energy Conversion
Designing Photocatalytic Membrane to Direct Electron and Hole Transport
245th Meeting of the Electrochemical Society, San Francisco, May 26-30
Kamat, Semiconductor Nanostructures for Light Energy Conversion (Invited)
Szabo, Mathew, and Kamat, Ion migration Influencing Perovskite Solar Cell Performance and Stability
Kipkorir, Ealy, Yu, and Kamat, Designing Photocatalytic Membrane to Direct Electron and Hole Transport
45th U.S. Department of Energy Solar Photochemistry PI Meeting, Gaithersburgh, MD, June 3-5
Chemmanghat, Chakkamalayath, DuBose and Kamat, Tuning Energy Transfer Pathways in Halide Perovskite QD-Dye Hybrids (Invited)
24th International Conference on Photochemical Conversion and Storage of Solar Energy (IPS-24), Hiroshima, Japan, July 28-Aug 2
Kamat, Ion Migration in Metal Halide Perovskites and Its Impact on Solar Cell Performance (Invited)
2nd Gerischer Electrochemistry Today Symposium: Semiconductor Electrochemistry from Gerischer to Lewerenz and Beyond, Fort CollinsAug 6-8
Kamat, Modulating Charge Separation in Nanostructured Semiconductor Films (Invited)
Surfcat Summer School 2024, Kobak Strand, Denmark, Aug 11-16
Kamat, Photocatalysis. How Electron Transfer Rates Control Net Conversion Efficiency (Invited)
Kamat, Will AI Make a Paradigm Shift in Scientific Publishing? (Invited)
Materials Challenges in Alternative and Renewable Energy 2024, Jeju Island, S. Korea, Aug 19-23
Kamat.Navigating Energy and Electron Transfer Processes in Semiconductor-Molecular Hybrids (Invited)
18th Conference on Methods and Application in Fluoresence, Valencia, Spain, Sep 8-11
Chemmangat, Chakkamalayath, and Kamat, Navigating Energy Transfer in Halide Perovskite QD-Multiple Chromophore Assemblies (Otto Wolfbeis Award Letcure)
7th International Conference on Perovskite Solar Cells and Optoelectronics, Perugia, Italy, Sep 16-18
Kamat, Impact of Ion Migration on Perovskite Solar Cell Performance (Invited)
Perovskite Workshop, Lund, Sweden, Sep 23-24
Kamat, How Ion Migration in Metal Halide Perovskites Impacts Solar Cell Performance (Invited)

PRiME 2024, Electrochemical Society Meeting, Honolulu, Oct 6-11
Szabo and Kamat, Controlling Ion Migration in Metal Halide Perovskites for Better Solar Cell Stability (Invited)
Kipkorir, Yu and Kamat, Photocatalytic Semiconductor Membrane with Directional Flow of Charge Carriers
The Annual Symposium of the Institute for Sustainable Energy and Environment, Richmond, October 16-18,
Kamat, Transforming Next Generation Photovoltaics with Semiconductor Nanostructures (Invited)
Sungkyun International Solar Forum 2024, Seoul, Korea, Oct 30-Nov1
Kamat, P., Assessing Claims of “Highly Efficient and Stable” Perovskite Solar Cells (Invited)
Fall Meeting of the Materials Research Society, Boston Dec 1-6

Kamat, P. How ion migration in metal halide perovskites impacts solar cell performance and stability (Invited)
Kamat, P. Photocatalytic membrane for solar fuel generation (Invited)
Chakkamalayath, J., Chemmanghat, A., Kamat, P. Directing Singlet and Triplet Energy Transfer Pathways in Halide Perovskite QD-Chromophore Assemblies
International Conference on Advanced Energy Materials, IISER, Pune India, Dec. 9-11
Kamat, P. Energy Transfer Cascade in Halide Perovskite QD - Chromophore Assemblies (Invited)
International Conference on Carbon Capture and Utilization 2024 (ICCCU24), Bangalore, India, Dec 9-13
Kamat, P. Reducing Carbon Footprint with Nanostructure Architectures (Invited)
Conference on Advances in Catalysis for Energy and Environment (CACEE-2024), Mumbai, Dec 16-20
Kamat, P. Efficacy of Photocatalysis for Solar Fuel Generation: How Electron Transfer Rates Control Net Conversion Efficiency (Invited)
International Conference on Metal Halide Perovskites HyPe-2024, Bhubaneshwar, India, Dec 19-22
Kamat, P., Assessing "Highly Efficient and Stable" Perovskite Solar Cells (Invited)

2023

Annual Conference of the Inter American Photochemical Society, Destin, Florida, January 5-9
Halide perovskite-molecular hybrids for light energy conversion (invited)
International Conference on Advanced Materials: Properties and Applications, Goa, India. February 20-24
Light energy harvesting with halide perovskite-molecular hybrids (invited)
Perovskite Society of India Meet (PSIM)-2023, IIT Roorkee, March 01-03
Spring Meeting of the American Chemical Society, Indianapolis, March 26-30
Excited state interactions dictating energy flow in semiconductor nanocrystal-molecular assemblies
Photoinduced transformations in Ruddlesden-Popper 2D films
Crano Award Talks, University of Akron, Akron April 14
Light energy conversion with halide perovskite-molecular hybrids. Energy versus electron transfer (invited)
Reducing carbon footprint with next generation photovoltaics (invited)
Inaugural Symposium of the Institute for Sustainable Energy and Environment. VCU, Richmond April 26-28
Transforming next generation photovoltaics with semiconductor nanostructures (invited)
Nobel Symposium ns191: Efficient Light to Electric Power Conversion for a Renewable Energy Future, Uppsala,Sweden, May 3-5
Overcoming challenges of ion migration in perovskite solar cells (invited)
44th U.S. Department of Energy Solar Photochemistry PI Meeting, Rockville, MD, May 22-24
Managing excited-state interactions in semiconductor nanocrystal–molecular hybrids. Energy versus electron transfer (Invited)
243rd ECS Meeting of the Electrochemical Society, Boston May 28- June 2
Halide ion migration in 2D metal halide perovskites (invited)
Semiconductor/metal membrane for photocatalytic hydrogen generation
Managing excited-state interactions in semiconductor nanocrystal–molecular hybrids. Energy versus electron transfer (Invited)
2023 Meeting of the Canadian Society for Chemistry, Vancouver, June 4-8
Tuning metal halide perovskite-molecular hybrids for capture and conversion of light energy (Invited)
Ohio Photochemical Society Meeting, July 10-12
Overcoming Challenges in Photocatalysis and Electrolysis. Why seeing is not always believing
How to compose an effective scientific publication (invited)
Fall 2023 Meeting of the American Chemical Society, San Francisco, August 13-17
Challenges and opportunities in pervoskite photocatalysis (Invited)
Ion migration in 2D metal halide perovskites under heat and light
Yucomat2023, Materials Research Conference, Herceg Novi, MontenegroSeptember 3-8
Transforming Next Generation Photovoltaics with Semiconductor Nanostructures
Molecules and Light 2023, Krakow, Poland, September 24-27, 2024
Energy or Electron Transfer? Tracking Excited-State Interactions in Semiconductor Nanocrystal–Molecular Hybrids
Sungkyun International Solar Forum, SISF2023, Seoul, Korea, Nov 1-3
How Light and Heat Destabilizes 2D/3D Perovskite Interface
Fall Meeting of the Materials Research Society, Boston, Nov 26 -Dec 1
Cation Exchange at the 2D/3D Perovskite Interface and Its Influence on Solar Cell Performance
Tuning the Energy Flow in Halide Perovskite-Molecular Hybrids

International Winter School on Frontiers in Materials Science, Bangalore, India, Dec 4-6
How to Avoid Pitfalls in Electrocatalysis and Photocatalysis
International Conference on Recent Advances in Materials-RAM90, Bangalore, India, Dec 7-9
Directing Energy and Electron Transfer Processes in Semiconductor-Molecular Hybrids
Unit Day Symposium, Indian Institute of Science, Bangalore, India, December 18,19
Semiconductor Architectures: Nano-Scale Solutions for Macro-Scale Carbon Challenges
Hybrid Perovskite Conference HyPe23, Kolkata, India Dec 21-23
Ion Migration in Halide Perovskites: Implications for Solar Cell Stability

2022

59th Annual Convention of Chemists of the Indian Chemical Society, Dec 16-18, Dhanbad, India
(Acharya P C Ray Memorial Award Lecture)
How Semiconductor Nanostructures are Transforming Next Generation Photovoltaics

3rd KAIST Emerging Materials e-Symposium, Korea, Dec 20-21, 2022
How Halide Chemistry Influences Photostability of Halide Perovskite Solar Cells

Fall Material Research Society Meeting, Nov 27-Dec 2, Boston
Halide Ion Migration-Induced Instability in Metal Halide Perovskites (Invited)

10th Sungkyun International Solar Forum (SISF2022), Nov7-9, Seoul, Korea
Hole Trapping and Iodide Chemistry Dictating Photostability of Mixed Halide Perovskites (Invited)

2022 Makhlouf Haddadin Symposium, October 6,7 Beirut, Lebanon
Perovskite Photocatalysis. Tracking Electron Transfer at $CsPbBr_3$ Nanocrystal Interface (Invited)

ACS Fall Meeting, August 21-25, 2022, Chicago
Perovskite Photocatalysis. A Long Way Away (Invited)
Energy versus Electron Transfer. Tuning Excited State Chemistry of Halide Perovskite-Molecular Hybrids
Pillars of Research Excellence

Surfcat Summer School, August 7-12, Kysthusene Gilleleje, Denmark
Efficacy of Halide Perovskite Photocatalysis (Invited)
Mastering the Art of Scientific Publication

23rd International Conference on Photochemical Conversion and Storage of Solar Energy, August 2-5, Lausanne, Switzerland
Perovskite photocatalysis. Tracking electron transfer at CsPbBr3 nanocrystal interface (Plenary Lecture)

2022 GRS on Electron Donor-Acceptor Interactions
Semiconductor Nanostructures for Energy Conversion

IUPAC Photochemistry Meeting, Amsterdam, July 21-25, 2022
Light Energy Harvesting with Halide Perovskite-Molecular Hybrids (Porter Medal Lecture)

Gordon Conference on Colloidal Semiconductor Nanocrystals, July 3-8, Les Diablerets, Switzerland
Photoinduced Energy and Electron Transfer Processes in Perovskite Nanocrystal-Molecular Hybrids

LMPV annual symposium Friday, June 17, 2022 NWO-Institute AMOLF, Amsterdam (Virtual)
Directing the flow of energy and electrons in halide perovskite-molecular hybrids: energy versus electron transfer

2022 DOE-BES Solar Photochemistry PI Meeting, June 8-10 (Virtual)
Photoinduced Electron Transfer in $AgInS_2$ and $AgInS_2$-CdS Nanocrystals (Invited)

241st Meeting of the Electrochemical Society, Vancouver, May 29, 2022 - June 22022

Evolution of Nanocarbons in Energy Conversion and Storage (Smalley Award Lecture)
CdS/Pd Photocatalytic Bipolar Membrane for Selective Reduction and Oxidation Processes
Directing Energy and Electron Transfer Processes in Perovskite Nanocrystals

Graduate Student Symposium, University of Buffalo, May 17 (Virtual)
Perovskite Photocatalysis. Tracking Electron Transfer at CsPbBr3 Nanocrystal Interface (Keynote)
ACS Spring Meeting, March 20-24, 2022, San Diego
Intricacy of CsPbBr3–Au Hybrid Nanocrystals in Photocatalysis (Invited)
Perovskite Photocatalysis. Tracking Electron Transfer at $CsPbBr_3$ Nanocrystal Interface

APS March 18-21 Meeting 2022, Chicago
Halide Ion Migration in Halide Perovskites and Its Impact on the Photovoltaic Stability

Ultra-Fast Dynamics in Halide Perovskite Materials and Devices, India (Virtual), April 4
Directing Energy and Electron Transfer processes in Halide Perovskites

2021

Materials for Energy and Environment, Materials Research Society of India, Chennai, India Dec 20-23, 2021
How to Avoid Common Pitfalls in Photocatalysis and Electrocatalysis

Research Institute for Electronic Science (RIES) Annual Conference, Hokkaido University, December 7-8, 2021
Halide Ion Migration in Halide Perovskites and Its Impact on the Stability,

11th Nano Ontario Conference, 2021Ryerson University, Canada, November 04 2021
How Nanostructures are Transforming Next Generation Photovoltaics

APS-CPS (American Physics Society and Chinese Physics Society) joint session on Energy & Sustainability, Beijing, China, Oct 23-24, 2021
From Quantum Dots to Perovskites: How Semiconductor Nanostructures are Shaping Light Energy Conversion

2nd CINE (Center for Innovation on New Energies) Annual Meeting, Sao Paolo, Brazil October 6th-8th 2021
How Semiconductor Nanostructures are Transforming Next Generation Photovoltaics

2021 Electrochemical Society Japan, Sapporo, Japan, Autumn Meeting September 7, 8, 2021
A Photoelectrochemical Insight into the Halide Migration in Mixed Halide Perovskites

Workshop on Semiconductors, Optoelectronics and Nanostructures, Daegu, South Korea, August 26-27, 2021
Photoinduced Phase Segregation in Mixed Halide Perovskites

ACS Fall Meeting, ACS Award in the Chemistry of Materials Symposium in Honor of Prof. Yury Gogotsi, Atlanta, Aug 22-26, 2021
Photoinduced Halide Ion Segregation in 2D-Lead Halide Perovskites,

Interdisciplinary Topics in Materials Science (ITAM-2021), IISc, Bangalore, India, 27 - 30 July, 2021
Photoinduced Phase Segregation in 3D and 2D Lead Halide Perovskites

2021 DOE-BES Solar Photochemistry PI Meeting, June 2-4, 2021
Charge Transfer Processes in Metal Halide Perovskite Based Light Harvesting Assemblies

239th Meeting of the Electrochemical Society, May 30- June 3, 2021
Halide Ion Mobility of Mixed Halide Perovskites in Light

Quebec Center for Advanced Materials (QCAM) Virtual Annual Meeting (May 27 & 28, 2021)
Light Energy Conversion with Semiconductor Nanostructures: From Quantum Dots to Perovskites.

Materials Research Society Spring Meeting, April 17-23, 2021

In Situ Monitoring of Iodine Migration in Mixed Halide Perovskites

2020

Energy Conversion 57 Annual Convention of Chemists (Virtual), Indian Chemical Society, India, December 26-29. 2020 (Invited)
Quantum Dots to Perovskites. How Semiconductor Nanostructures are Shaping Light Challenges in Photocatalysis. Why Seeing is Not Always Believing

International Winter School (Virtual) on Frontiers in Materials Science. December 6-11, 2020, India
Mixed Halide Perovskite Under Light. Phase Segregation and Iodine Expulsion

Perovskites MRS 2020 Spring/Fall Virtual Meeting November 27 – December 4, 2020
Intricacy of Photoinduced Halide Ion Segregation and Dark Remixing in Mixed Halide

2019

Materials Research Society Fall meeting in Boston, Massachusetts, on December 4, 2019
Tuning Semiconductor Nanostructures for Light Energy Conversion

DGIST Global Innovation Festival in Daegu, Korea, on November 12, 2019
Thermal and Photodriven Mobility of Halide Ions in Metal Halide Perovskite Nanostructures (Invited)

The International Symposium On Clusters And Nanomaterials, Richmond, Nov 3-7, 2019
Semiconductor Nanostructures for Light Energy Conversion. From Photocatalysis to Photovoltaics (Invited)

7th International Conference on Semiconductor Photochemistry in Milan, Italy, September 11-14, 2019
Role of Sacrificial Donors in Photocatalysis

Fall American Chemical Society National Meeting, San Diego, California, August 24-29, 2019
Stalking Halide Ion Migration in Lead Halide Perovskites (Plenary Lecture)

Joint UK & Czech Network Meeting in Prague, Czech Republic, September 5, 2019
Intricacies of Halide Ion Mobility in Metal Halide Perovskites. (Invited)

Publishing workshop organized by the Department of Science & Technology, India and American Chemical Society, July 28, 2020
Effective Manuscript Writing/Peer review

10th International Conference on. Materials for Advanced Tech. (ICMAT) Conference, Singapore, June 23-28
Visualizing Halide Ion Mobility in Metal Halide Perovskite Films through Photo and Thermal Effects (Invited)

Sungkyun International Solar Forum 2019, Seoul, Korea June 19-21, 2019
Quantum Dots to Perovskites. Tuning Semiconductor Nanostructures for Light Energy Conversion (Invited)

Nankai International Conference on Solar Energy Conversion, China, June 17-18, 2019
Modulation of Photoinduced Charge Transfer at the Semiconductor Interface

DOE Solar Photochemistry Meeting in Gaithersburg, Maryland, June 3-5, 2019
Designing Next Generation Photovoltaics. From Quantum Dots to Perovskites

Ho Am Symposium in Seoul, South Korea, May 30-31, 2019
From Quantum Dots to Perovskites. How Semiconductor Nanostructures Bring About Light Energy Conversion

37th Biennial Meeting of the Spanish Royal Society of Chemistry in San Sebastian, Spain, May 26-30, 2019
Perovskite Photovoltaics. Research Opportunities and Challenges

University of Barcelona Annual Doctoral Workshop in Barcelona, Spain, May 23-24, 2019
Halide ion migration in mixed halide lead perovskites

Tandem perovskite architectures. Overcoming the complexities of halide ion exchange.
Hybrid Organic Photovoltaics 19 meeting in Rome at the University of Perugia, May 12-15, 2019

NanoGE Conference on Beyond Lead Halide Perovskites: Syntheses and Applications of Metal Halide Semiconductors (MABP) April 23, 2020
Photodynamics of $Cs_2BiAgBr_6$ Quantum Dots Linked to Oxide Surfaces

Spring Meeting of the Materials Research Society in Phoenix, Arizona, April 22-26, 2019
Photosensitization aspects of semiconductor quantum dots in photovoltaics.

Spring Meeting of the American Chemical Society, Orlando, Florida, March 31 – April 4, 2019
Communicating Scientific Advances to Broader Readership Effectively
Halide ion mobility in mixed halide perovskites and its influence on photovoltaic performance

DoE-BES "Physical Behavior of Materials" Program meeting, Gaithersburg, Maryland, March 19- 21, 2019
Establishing micropscopic photophysics of local cation and anion phase segregation in hybrid perovskite solar cells.

nanoGe International Conference on Perovskite Solar Cells, Photonics and Optoelectronics (NIPHO19), Jerusalem, Israel, February 23-28, 2019
Understanding Halide Ion Mobility in Lead Halide Perovskite Solar Cells.

Semiconductor Nanostructures for Next Generation Photovoltaics (C.N.R. Rao Distinguished lecture)
Annual meeting of the Chemical Research Society of India, Chennai February 8-10, 2019

Hybrid and Perovskite Solar Cells conference in New Delhi February 6-10, 2019

2018

Atlantic Basin Conference 2018, Cancun, Mexico, Jan 22-25

Liquid Crystals, Metamaterials, Transformation Optics, Photonic Crystals and solar cells, Univ. of Minneapolis, Minneapolis, MN Feb 27- Mar 2

257th National Meeting of the American Chemical Society, New Orleans, March 18-22

Forum on *Nano-, Meso-, and Microstructured Materials for Energy, Electronics and Biotechnology*

Southern University of Science and Technology (SUSTech), Shenzhen, China, April 15-17

Materials Research Society Spring Meeting, Phoenix, AZ, April 21-27, 2018

233rd Meeting of the Electrochemical Society, Seattle, WA, May 13-17

iCON 2018, Indian Institute of Science Education and Research (IISER), Tirupati, India May 24-26

DOE Solar Photochemistry Meeting in Gaithersburg, Maryland, June 4-7.

The 7th Summer Course and Workshop on Emergent Functional Matter Science

National Chiao Tung University, Taiwan, June 25-27

7th Sungkyun International Solar Forum (SISF 2017) – Perovskite Solar Cells and Related Topics, Seoul, Korea, June 27-29

ACS Publications Symposium: Innovation in Materials Science, Shanghai China *July 29-31*

22nd International Conference on Photochemical Conversion and Storage of Solar Energy, Hefei, China July 29-Aug2

Gerischer Electrochemistry Symposium 2018, Boulder, CO

ACS National Fall Meeting Boston., August 19-23

PULSE 2018 and RKCM 2018 Conference, Lodge, Poland, September 2-6

8th Szeged International Workshop on Advances in Nanoscience, Szed, Hungary, October 7-10

Materials Reasarch Society (MRS) Fall Meeting, Boston, Nov. 27-30, 2018

Frontiers in Chemical Sciences (FICS 2018), Guwahati, India 6-8th December, 2018 (Plenary Lecture)

International Conference on Advanced materials, Energy & Environmental Sustainability, ICAMEES-2018 at Dehradun, Dec 14-15

2017

9th Bengaluru India Nano Conference, Bangalore, December 7-8, 2017.

I2CAM, Bangalore, Novemeber 27- December 2-3, 2017.

ACS Publications Symposium: Innovation in Energy Conversion, in Dalian China September 24-26, 2017

15th Conference on Methods and Applications in Fluorescence (MAF 2017) in Bruges, Belgium, September 8-13, 2017.

DTRA Surface Science/Multifunctional Materials Science, an Army Research Meeting, Raleigh, North Carolina, September 5-7, 2017.

ACS National FallMeeting Washington, D.C., August 19-23, 2017

DOE Solar Photochemistry Meeting in Gaithersburg, Maryland, June 5-6.

28th International Conference on Photochemistry, Strasbourg, France, July 16-21

Gordon Research Conference on Environmental Nanotechnology, Stoweflake Conference Center in Stowe VT, June 18/2017 - June/23/2017

6th Sungkyun International Solar Forum (SISF 2017) – Perovskite Solar Cells and Related Topics, Seoul, Korea,

253rd National Meeting of the American Chemical Society, April 2-6, 2017

21st Annual Meeting of the International Society of Electrochemistry in Szeged, Hungary, April 23-26, 2017,

2017 MRS Spring Meeting, Phoenix, AZ, April 21-27, 2017

26th Inter-American Photochemical Society Meeting, Sarasota, FL, January 2-5, 2017.

2016

KAUST Research Conference 2016: Emerging Concepts and Materials in Solar Energy Conversion Oct 31-Nov 2, 2016

12th JNC Conference of Chemistry of Materials, Thiruvananthpuram, Sept25-27, 2016

International Conference on Electrochemical Energy Science, Kunming, China, Aug 16-2, 2016

Fall ACS Meeting, Philadelphia,Aug 21-26, 2016

21-st International Conference on Photochemical Conversion and Storage of Solar Energy. (IPS-21) St. Petersburg (Russia). 25th to 29th of July 2016

TSRC Summer School on Fundamental Science for Alternative Energy, Telluride, CO June 21-25, 2016

DOE Solar Photochemistry, June 6-9, 2016

Sungkyun International Solar Forum 2016 (SISF2016) Korea, May 25-27,2016

MRS Meeting, Phoenix, March27-Apr 1, 2016

Status and Prognosis of Future Generation Photoconversion to Photovoltaics and Solar Fuels Symposium, Boulder Colorado, Mar 24-25, 2016

ACS Spring Meeting, San Diego, Mar 13-16, 2016

Perovskite Thin Film Photovoltaics Conference, Barcelona, Spain Mar 3-4, 2016

2nd Molecules and Materials for Artificial Photosynthesis Conference, 25 - 28 Feb 2016, Mexico

2015

International Symposium on Clusters and Nanomaterials, Richmond, VA Oct 25-29, 2015

The International Chemical Congress of Pacific Basin Societies 2015, Honolulu, HI Dec 15-20

250th Meeting of the American Chemical Society, Boston, August 16-20, 2015

7th Frontier Scientists Workshop, Korean Academy of Science & Tecnology, Atlanta, July 30-31, 2015

Frontiers in Advanced Materials, Bangalore, India, June 15-18 2015

2015 DOE Solar Photochemistry Meeting, May 31-3, 2015

International Conference on Hybrid and Organic Photovoltaics 2015, to be held in Rome, Italy, May 10-13 2015.

8th Argonne-Northwestern Solar Energy Research (ANSER) Center Symposium, Evanston, April 16-17, 2015

20 Years of Quantum Dots at Los Alamos, Santa Fe April 12-16, 2015.

2015 MRS Spring Meeting, San Francisco, April 6-10, 2015

249th Meeting of the American Chemical Society, Denver, March 22-26, 2015

2014

8th Graduate Schulich Symposium at Technion, Israel Dec 11, 2014

2014 MRS Fall Meeting, Boston, MA Nov 30-Dec 5, 2014

Solar Future 2014, King Abdullah University of Science and Technology in Thuwal, Saudi Arabia Nov 8-11, 2014

Nanocordoba, Cordoba, Argentina Oct 22-24, 2014

CB Filtration Strategies and Multifunctional Materials Working Group, Army Research Office, Arlington, VA Oct 21-22, 2014

5th Annual Scialog Conference on Solar Energy Conversion, Tucson, AZ Oct 14-17, 2014

Indo-US Nanomaterials for Energy Workshop Purdue University, West Lafayette, IN Sep 17-18, 2014

ECOS30 –European Conference on Surface Science August 31-Sept 5, 2014

247th meeting of the American Chemical Society, March 16-20, Dallas,

36th DOE Solar Photochemistry Meeting, Annapolis, June 1-4, 2014

Sungkyun International Solar Forum, Seoul July 3-5, 2014

20th International Conference on Photochemical Conversion and Storage of Solar Energy, Berlin, July 27 –

248th meeting of the American Chemical Society, August 10-14, San Francisco

2014 MRS Spring Meeting, San Francisco, April 21-25, 2014

San Francisco

2013

245th American Chemical Society National Meeting New Orelans, LA April 7-11

European-Materials Research Society Spring Meeting Strasbourg, France May 27-31

35th DOE Solar Photochemistry Conference Annapolis, MD June 2-5

Sungkyun International Solar Forum Seoul, Korea July 1-3

246th American Chemical Society National Meeting Indianapolis IN September 8-12

Workshop on Photocatalysis as a Tool for Sustainability Portoroz, Slovenia September 23-24

3rd European Symposium on Photocatalysis Portoroz, Slovenia September 24-25

CB Filtration Strategies and Multifunctional Materials Development Workshop Belcamp, MD October 8-9

Research Corporation SCILOG conference Oracle, AZ October 16-18

American Vacuum Society Meeting Long Beach, CA October 27-November 1

International Photochemistry Conference Leuven, Belgium July 21-26

Telluride Workshop on Solar Solutions to Energy and Environmental Problems, Telluride, CO August 4-10

2012

Indian-US Workshop on Nanophotonics and Nanoplasmonics, Indian Inst. Sci., Bangalore, Jan 9-12.

4th International Symposium on Advanced Plasma Science and Its Applications for Nitrides and nanomaterials (ISPlasma2012). Chubu Univ., Aichi, Japan, January 28-February 1

243rd Meeting of the American Chemical Society. San Diego, CA. March 25-29

Annual Meeting of the Electrochemical Society. Seattle, WA, May 1-4

Gordon Research Conference, Chemistry and Physics of Graphitic Carbon materials, Davidson, NC, June 17-22.

DOE Solar Photochemistry Conference,. Annapolis, MD. June 3-6

19th International Conference on Photochemical Conversion and Storage of Solar Energy. California Institute of

244th Meeting of the American Chemical Society. Philadelphia, PA. August 19-23

8th JNC Conference on Chemistry of Materials. Trivandrum, India. Sept 30-Oct 2

3rd Plasmonic Chemistry Symposium. Tokyo, Japan November 10

7th Asian Photochemistry Conference 2012, Osaka University, Osaka, Japan. November 12-15

Symposium on Artificial Photosynthesis, Kyoto University. Kyoto, Japan, November 20

Indo-US Nanophotonics and Nanoplasmonics Workshop, Bangalore January 9-12, 2012

Publication Analysis

- ***h***- index 149 -WoS (174 -GOOGLE Scholar)
- Total Number of citations: 88600+, WoS (119000+,GOOGLE Scholar)
- Total number of peer reviewed research Papers and Review articles in Peer reviewed Journals: 550+

5 Most Citied Papers (Source: ISI Web of Science) as of May 2025

1. Williams, Graeme; Seger, Brian; Kamat, Prashant V. TiO_2-graphene nanocomposites. UV-assisted photocatalytic reduction of graphene oxide

   ACS Nano 2008, 1487-1491 Times Cited: 2338
2. Kamat PV Quantum dot solar cells. Semiconductor nanocrystals as light harvesters

   J. Phys. Chem. C 2008, 112 18737-18753 Times Cited: 2334
3. Kamat PV Meeting the clean energy demand: Nanostructure architectures for solar energy conversion
   J. Phys. Chem. C 2007, 111, 2834-2860, Times Cited: 2052
4. Subramanian, V., E.E. Wolf, and P.V. Kamat, Catalysis with TiO_2/Au Nanocomposites. Effect of Metal Particle Size on the Fermi Level Equilibration.
   J. Am. Chem. Soc., 2004, 126, 4943-4950. Times Cited: 1916
5. Kamat PV Photophysical, photochemical and photocatalytic aspects of metal nanoparticles
   J. Phys. Chem. B 2002, 106, 7729-7744, Times Cited: 1851

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