Stanford



Mark Brongersma

Director, Geballe Laboratory for Advanced Materials (GLAM), Stephen Harris Professor, Professor of Materials Science and Engineering and, by courtesy, of Applied Physics

Curriculum Vitae available Online

CONTACT INFORMATION

- **Administrator**

  Benita Givens - Administrative Associate

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Bio

BIO

Mark Brongersma is a Professor in the Department of Materials Science and Engineering at Stanford University. He received his PhD in Materials Science from the FOM Institute in Amsterdam, The Netherlands, in 1998. From 1998-2001 he was a postdoctoral research fellow at the California Institute of Technology. During this time, he coined the term “Plasmonics” for a new device technology that exploits the unique optical properties of nanoscale metallic structures to route and manipulate light at the nanoscale. His current research is directed towards the development and physical analysis of nanostructured materials that find application in nanoscale electronic and photonic devices. Brongersma received a National Science Foundation Career Award, the Walter J. Gores Award for Excellence in Teaching, the International Raymond and Beverly Sackler Prize in the Physical Sciences (Physics) for his work on plasmonics, and is a Fellow of the Optical Society of America, the SPIE, and the American Physical Society.

ACADEMIC APPOINTMENTS

- Professor, Materials Science and Engineering
- Professor (By courtesy), Applied Physics
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Affiliate, Precourt Institute for Energy
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Deputy Director of the Geballe Laboratory for Advanced Materials, Stanford, (2013- present)

HONORS AND AWARDS

- A F Harvey Engineering Research Prize, Institution of Engineering and Technology (2025)
- Fellow, Materials Research Society (2023)
- Stephen Harris Professor, Stanford University (2020)
- Highly Cited Researcher, Clarivate Analytics (2018 - Present)

- Fellow, SPIE (2011)
- Fellow, American Physical Society (2010)
- Raymond and Beverly Sackler Prize in the Physical Sciences for Physics, Tel Aviv University (2010)
- Fellow, Optical Society of America (2008)
- Walter J. Gores Award for Excellence in Teaching, Stanford (2007)
- CAREER Award, National Science Foundation (2004)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Engineering Research Visioning Alliance (ERVA) Taskforce, National Science Foundation (2025 - present)
- Scientific Advisor, Meta Materials (2016 - 2023)
- Co-founder of Rolith, Inc, Rolith, Inc (2008 - 2016)
- Elected Member, The Bohmische Physical Society (1999 - present)

PROGRAM AFFILIATIONS

- Stanford SystemX Alliance

PROFESSIONAL EDUCATION

- PhD, FOM Institute for Atomic and Molecular Physics, Amsterdam, The Netherlands , Materials Science and Engineering (1998)

LINKS

- Mark L. Brongersma: https://brongersma.stanford.edu/

Teaching

COURSES

2026-27

- Electronic and Optical Properties of Solids: MATSCI 199, MATSCI 209 (Spr)
- Nanophotonics: EE 336, MATSCI 346 (Aut)

2025-26

- Nanophotonics: EE 336, MATSCI 346 (Aut)

2024-25

- Electronic and Optical Properties of Solids: MATSCI 199, MATSCI 209 (Spr)
- Nanophotonics: EE 336, MATSCI 346 (Aut)
- Thin Film and Interface Microanalysis: MATSCI 323 (Win)

2023-24

- Electronic and Optical Properties of Solids: MATSCI 199, MATSCI 209 (Spr)
- Nanophotonics: EE 336, MATSCI 346 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Priyanuj Bordoloi, Hamish Carr Delgado, Dali Cheng, Han Cui, Martin Gonzalez, Baba Ogunlade, Kalee Rozylowicz, Su Zhao

Orals Chair

Kevin Crust

Postdoctoral Faculty Sponsor

Juan Irurita Vernaza, Youngjin Kim, Mingna Liao, Chi-Ching Liu, Jason Lynch, Ziwei Yang

Doctoral Dissertation Advisor (AC)

Joao Azaro Berenguer, Johan Carlstrom, Yi-Shiou Duh, Omid Hemmatyar, Jinwoo Lee

Doctoral Dissertation Co-Advisor (AC)

MinJae Kim, Wiley Yu

Publications

PUBLICATIONS

- **Interfacial Control of Hot-Carrier Extraction and Photostability in Two-Dimensional Materials** *ACS NANO*
  Gollner, C., Taghinejad, M., Xia, C., Zhang, Z., Liu, F., Laudani, F., Foelske, A., Brongersma, M. L., Mannix, A. J., Heinz, T. F., Lindenberg, A. M.
  2026
- **Fostering cultural change in research through innovative knowledge sharing, evaluation, and community engagement strategies.** *NPJ science of learning*
  Rho, J., Sheu, J. K., Forbes, A., Tsai, D. P., Alú, A., Li, W., Brongersma, M. L., Choi, J., Garcia de Abajo, F. J., Na Liu, L., Szameit, A., Schloemer, T., Tittl, et al
  2026; 11 (1)
- **The meta way of thinking.** *Nature materials*
  Dmitriev, A., Jonsson, M. P., Brongersma, M. L., Engheta, N., Maccaferri, N.
  2026
- **Achieving superresolution imaging via k-space superoscillation** *ELIGHT*
  Li, Q., Brongersma, M. L.
  2026; 6 (1)
- **Tartrazine Clears Live Cells while Preserving Viability at High Refractive Indices and Osmolality.** *Bioconjugate chemistry*
  Hou, X., Cai, S., Cui, H., Liu, Z., Zhao, S., Zhang, L. Y., Baghdasaryan, A., Crunkleton, V., Brongersma, M. L., Hong, G.
  2026
- **Metasurface-Enhanced Momentum-Resolved Circular Dichroism Spectroscopy.** *Nano letters*
  Dado, R. S., Bordoloi, P., Xiong, Y., Liu, C. C., Brinkman, L. J., Moradifar, P., Pan, F., Tang, M. L., Brongersma, M., Dionne, J.
  2026
- **Hybrid-2D Excitonic Metasurfaces for Complex Amplitude Modulation.** *Nano letters*
  Hoekstra, T., Brongersma, M. L., van de Groep, J.
  2026
- **Tartrazine clears live cells while preserving viability at high refractive indices and osmolality.** *bioRxiv : the preprint server for biology*
  Hou, X., Cai, S., Cui, H., Liu, Z., Zhao, S., Zhang, L. Y., Baghdasaryan, A., Crunkleton, V., Brongersma, M. L., Hong, G.
  2026
- **Achieving Optical Transparency in Human Skin with Absorbing Molecules**
  Myung, D., Zhao, S., Manning, E. C. H., Brongersma, M., Winetraub, Y., Sarin, K., Hong, G.
  edited by Tuchin, V. V., Leahy, M. J., Wang, R. K.
  SPIE-INT SOC OPTICAL ENGINEERING.2026
- **Direct probing of ultrafast hot-carrier injection and photo-induced degradation at Au/WS₂ interfaces using time-domain THz emission spectroscopy**
  Gollner, C., Xia, C., Taghinejad, M., Zhang, Z., Liu, F., Brongersma, M. L., Mannix, A. J., Heinz, T., Lindenberg, A.
  edited by Majumdar, A., Torres, C. M., Deng, H.
  SPIE-INT SOC OPTICAL ENGINEERING.2026

- **Soft photonic skins with dynamic texture and colour control.** *Nature*
  Doshi, S., Güsken, N. A., Dijk, G., Carlström, J., Ortiz-Cárdenas, J. E., Suzuki, P., Li, B., Fordyce, P. M., Salleo, A., Melosh, N. A., Brongersma, M. L.
  2026; 649 (8096): 345-352

- **Apparent Resonance Splitting in Self-Coupled Excitonic Systems** *ACS PHOTONICS*
  Sarbajna, A., Li, Q., Danielsen, D., Selvin, S., Nguyen, D., Doan, M., Boggild, P., Brongersma, M. L., Raza, S.
  2025

- **Color-neutral and reversible tissue transparency enables longitudinal deep-tissue imaging in live mice.** *Proceedings of the National Academy of Sciences of the United States of America*
  Keck, C. H., Schmidt, E. L., Roth, R. H., Floyd, B. M., Tsai, A. P., Garcia, H. B., Cui, M., Chen, X., Wang, C., Park, A., Zhao, S., Liao, P. A., Casey, et al
  2025; 122 (35): e2504264122

- **Near unity narrowband infrared thermal emitters on silicon with silicon carbide-germanium metasurfaces** *APL PHOTONICS*
  Rufangura, P., Cui, Y., Liu, H., Carlstrom, J. D., Crozier, K., Brongersma, M. L., Yang, Y., Iacopi, F.
  2025; 10 (8)

- **Acoustic wave modulation of gap plasmon cavities.** *Science (New York, N.Y.)*
  Selvin, S. P., Esfandyarpour, M., Ji, A., Lee, Y. J., Yule, C., Song, J. H., Taghinejad, M., Brongersma, M. L.
  2025; 389 (6759): 516-520

- **GHz-Speed Wavefront Shaping Metasurface Modulators Enabled by Resonant Electro-Optic Nanoantennas.** *Advanced materials (Deerfield Beach, Fla.)*
  Dagli, S., Shim, J., Carr Delgado, H., Balch, H. B., Abdollahramezani, S., Chen, C. Y., Dolia, V., Klopfer, E., Dixon, J., Hu, J., Ogunlade, B., Song, J. H., Brongersma, et al
  2025: e06790

- **Nonlocality in photonic materials and metamaterials: roadmap** *OPTICAL MATERIALS EXPRESS*
  Monticone, F., Mortensen, N., Fernandez-Dominguez, A. I., Luo, Y., Zheng, X., Tserkezis, C., Khurgin, J. B., Shahbazyan, T., Chaves, A. J., Peres, N. M. R., Wegner, G., Busch, K., Hu, et al
  2025; 15 (7): 1544-1709

- **Ion-Assisted Nanoscale Material Engineering in Atomic Layers.** *Nano letters*
  Taghinejad, H., Taghinejad, M., Abdollahramezani, S., Li, Q., Woods, E. V., Tian, M., Eftekhar, A. A., Lyu, Y., Zhang, X., Ajayan, P. M., Cai, W., Brongersma, M. L., Analytis, et al
  2025

- **Achieving transient and reversible optical transparency in live mice with tartrazine.** *Nature protocols*
  Keck, C. H., Schmidt, E. L., Zhao, S., Liu, Z., Zhang, L., Cui, M., Chen, X., Wang, C., Cui, H., Brongersma, M. L., Hong, G.
  2025

- **Dynamic Excitonic Beam Switching with Atomically-Thin Binary Blazed Gratings** *ADVANCED OPTICAL MATERIALS*
  Guarneri, L., Bauer, T., Li, Q., Song, J., Selvin, S., Saunders, A. P., Liu, F., Brongersma, M. L., van de Groep, J.
  2025

- **Highly Efficient, Tunable, Electro-Optic, Reflective Metasurfaces Based on Quasi-Bound States in the Continuum.** *ACS nano*
  Damgaard-Carstensen, C., Yezekyan, T., Brongersma, M. L., Bozhevolnyi, S. I.
  2025

- **Thermal Processing Creates Water-Stable PEDOT:PSS Films for Bioelectronics.** *Advanced materials (Deerfield Beach, Fla.)*
  Doshi, S., Forner, M. O., Wang, P., Hadwe, S. E., Jin, A. T., Dijk, G., Brinson, K., Lim, J., Dominguez-Alfaro, A., Lim, C. Y., Salleo, A., Barone, D. G., Hong, et al
  2025: e2415827

- **Color-neutral and reversible tissue transparency enables longitudinal deep-tissue imaging in live mice.** *bioRxiv : the preprint server for biology*
  Keck, C. H., Schmidt, E. L., Roth, R. H., Floyd, B. M., Tsai, A. P., Garcia, H. B., Cui, M., Chen, X., Wang, C., Park, A., Zhao, S., Liao, P. A., Casey, et al
  2025

- **Routing Light Emission from Monolayer MoS₂ by Mie Resonances of Crystalline Silicon Nanospheres** *ACS APPLIED OPTICAL MATERIALS*
  Ozawa, K., Sugimoto, H., Shima, D., Hinamoto, T., Habil, M., Lee, Y., Raza, S., Imaeda, K., Ueno, K., Brongersma, M. L., Fujii, M.
  2025
- **The second optical metasurface revolution: moving from science to technology** *NATURE REVIEWS ELECTRICAL ENGINEERING*
  Brongersma, M. L., Pala, R. A., Altug, H., Capasso, F., Chen, W., Majumdar, A., Atwater, H. A.
  2025; 2 (2): 125-143
- **Probing Hot Carrier Acceleration in Evanescent Plasmon Fields**
  Hemmatyar, O., Taghinejad, M., Gollner, C., Lindenberg, A. M., Brongersma, M. L., IEEE
  IEEE.2025
- **Terahertz Emission of Hot Carrier Plasmonics**
  Taghinejad, M., Gollner, C., Lindenberg, A. M., Brongersma, M. L., IEEE
  IEEE.2025
- **Optical devices as thin as atoms.** *Science (New York, N.Y.)*
  Li, M., Li, Q., Brongersma, M. L., Atwater, H. A.
  2024; 386 (6727): 1226-1228
- **Optoelectronic metadevices.** *Science (New York, N.Y.)*
  Ha, S. T., Li, Q., Yang, J. K., Demir, H. V., Brongersma, M. L., Kuznetsov, A. I.
  2024; 386 (6725): eadm7442
- **Electrochemically mutable soft metasurfaces.** *Nature materials*
  Doshi, S., Ji, A., Mahdi, A. I., Keene, S. T., Selvin, S. P., Lalanne, P., Appel, E. A., Melosh, N. A., Brongersma, M. L.
  2024
- **Understanding the Impact of Contact-Induced Strain on the Electrical Performance of Monolayer WS2 Transistors.** *Nano letters*
  Hoang, L., Jaikissoon, M., Köroğlu, Ç., Zhang, Z., Bennett, R. K., Song, J. H., Yang, J. A., Ko, J. S., Brongersma, M. L., Saraswat, K. C., Pop, E., Mannix, A. J.
  2024
- **Achieving optical transparency in live animals with absorbing molecules.** *Science (New York, N.Y.)*
  Ou, Z., Duh, Y. S., Rommelfanger, N. J., Keck, C. H., Jiang, S., Brinson, K., Zhao, S., Schmidt, E. L., Wu, X., Yang, F., Cai, B., Cui, H., Qi, et al
  2024; 385 (6713): eadm6869
- **High absorptivity nanotextured powders for additive manufacturing.** *Science advances*
  Tertuliano, O. A., DePond, P. J., Lee, A. C., Hong, J., Doan, D., Capaldi, L., Brongersma, M., Gu, X. W., Matthews, M. J., Cai, W., Lew, A. J.
  2024; 10 (36): eadp0003
- **Ten principles for responsible quantum innovation** *QUANTUM SCIENCE AND TECHNOLOGY*
  Kop, M., Aboy, M., De Jong, E., Gasser, U., Minssen, T., Cohen, I., Brongersma, M., Quintel, T., Floridi, L., Laflamme, R.
  2024; 9 (3)
- **Direct electron beam patterning of electro-optically active PEDOT:PSS.** *Nanophotonics*
  Doshi, S., Ludescher, D., Karst, J., Floess, M., Carlström, J., Li, B., Mintz Hemed, N., Duh, Y. S., Melosh, N. A., Hentschel, M., Brongersma, M., Giessen, H.
  2024; 13 (12): 2271-2280
- **Temperature-Dependent Excitonic Light Manipulation with Atomically Thin Optical Elements.** *Nano letters*
  Guarneri, L., Li, Q., Bauer, T., Song, J. H., Saunders, A. P., Liu, F., Brongersma, M. L., van de Groep, J.
  2024
- **Roadmap for Optical Metasurfaces.** *ACS photonics*
  Kuznetsov, A. I., Brongersma, M. L., Yao, J., Chen, M. K., Levy, U., Tsai, D. P., Zheludev, N. I., Faraon, A., Arbabi, A., Yu, N., Chanda, D., Crozier, K. B., Kildishev, et al
  2024; 11 (3): 816-865

- **Direct electron beam patterning of electro-optically active PEDOT:PSS** *NANOPHOTONICS*
  Doshi, S., Ludescher, D., Karst, J., Floess, M., Carlstrom, J., Li, B., Hemed, N., Duh, Y., Melosh, N. A., Hentschel, M., Brongersma, M., Giessen, H.
  2024
- **Determining hot-carrier transport dynamics from terahertz emission.** *Science (New York, N.Y.)*
  Taghinejad, M., Xia, C., Hrton, M., Lee, K. T., Kim, A. S., Li, Q., Guzelturk, B., Kalousek, R., Xu, F., Cai, W., Lindenberg, A. M., Brongersma, M. L.
  2023; 382 (6668): 299-305
- **Physics-Informed Machine Learning for Inverse Design of Optical Metamaterials** *ADVANCED PHOTONICS RESEARCH*
  Sarkar, S., Ji, A., Jermain, Z., Lipton, R., Brongersma, M., Dayal, K., Noh, H.
  2023
- **Off-axis metasurfaces for folded flat optics.** *Nature communications*
  Born, B., Lee, S. H., Song, J. H., Lee, J. Y., Ko, W., Brongersma, M. L.
  2023; 14 (1): 5602
- **Impact of substrates and quantum effects on exciton line shapes of 2D semiconductors at room temperature.** *Nanophotonics (Berlin, Germany)*
  van de Groep, J., Li, Q., Song, J. H., Kik, P. G., Brongersma, M. L.
  2023; 12 (16): 3291-3300
- **Transfer Matrix Method-Compatible Model for Metamaterial Stacks** *ACS PHOTONICS*
  Song, J., Lalanne, P., Seo, M., Brongersma, M. L. L.
  2023
- **A Purcell-enabled monolayer semiconductor free-space optical modulator** *NATURE PHOTONICS*
  Li, Q., Song, J., Xu, F., van de Groep, J., Hong, J., Daus, A., Lee, Y., Johnson, A. C., Pop, E., Liu, F., Brongersma, M. L.
  2023
- **Ultrafast Wavefront Shaping via Space-Time Refraction** *ACS PHOTONICS*
  Fan, Q., Shaltout, A. M., van de Groep, J., Brongersma, M. L., Lindenberg, A. M.
  2023
- **Controlling Valley-Specific Light Emission from Monolayer MoS2 with Achiral Dielectric Metasurfaces.** *Nano letters*
  Liu, Y., Lau, S. C., Cheng, W., Johnson, A., Li, Q., Simmerman, E., Karni, O., Hu, J., Liu, F., Brongersma, M. L., Heinz, T. F., Dionne, J. A.
  2023
- **Impact of substrates and quantum effects on exciton line shapes of 2D semiconductors at room temperature** *NANOPHOTONICS*
  van de Groep, J., Li, Q., Song, J., Kik, P. G., Brongersma, M. L.
  2023
- **Multi-resonant Mie Resonator Arrays for Broadband Light Trapping in Ultrathin c-Si Solar Cells.** *Advanced materials (Deerfield Beach, Fla.)*
  Lee, N., Xue, M., Hong, J., van de Groep, J., Brongersma, M. L.
  2023: e2210941
- **Dynamically Tunable Optical Cavities with Embedded Nematic Liquid Crystalline Networks.** *Advanced materials (Deerfield Beach, Fla.)*
  Zubritskaya, I., Cichelero, R., Faniayeu, I., Martella, D., Nocentini, S., Rudquist, P., Wiersma, D. S., Brongersma, M. L.
  2023: e2209152
- **Nonlocal metasurface for circularly polarized light detection** *OPTICA*
  Hong, J., Van De Groep, J., Lee, N., Kim, S., Lalanne, P., Kik, P. G., Brongersma, M. L.
  2023; 10 (1): 134-141
- **Quantitative phase contrast imaging with a nonlocal angle-selective metasurface.** *Nature communications*
  Ji, A., Song, J. H., Li, Q., Xu, F., Tsai, C. T., Tiberio, R. C., Cui, B., Lalanne, P., Kik, P. G., Miller, D. A., Brongersma, M. L.
  2022; 13 (1): 7848
- **Metasurface optofluidics for dynamic control of light fields.** *Nature nanotechnology*
  Li, Q., van de Groep, J., White, A. K., Song, J., Longwell, S. A., Fordyce, P. M., Quake, S. R., Kik, P. G., Brongersma, M. L.
  2022

- **Creating the ultimate virtual reality display.** *Science (New York, N.Y.)*
  Joo, W., Brongersma, M. L.
  2022; 377 (6613): 1376-1378
- **Enhanced Light Emission from Monolayer MoS2 by Doubly Resonant Spherical Si Nanoantennas br** *ACS PHOTONICS*
  Shinomiya, H., Sugimoto, H., Hinamoto, T., Lee, Y., Brongersma, M. L., Fujii, M.
  2022; 9 (5): 1741-1747
- **Excitons in strained and suspended monolayer WSe2** *2D MATERIALS*
  Aslan, B., Yule, C., Yu, Y., Lee, Y., Heinz, T. F., Cao, L., Brongersma, M. L.
  2022; 9 (1)
- **High-specific-power flexible transition metal dichalcogenide solar cells.** *Nature communications*
  Nassiri Nazif, K., Daus, A., Hong, J., Lee, N., Vaziri, S., Kumar, A., Nitta, F., Chen, M. E., Kananian, S., Islam, R., Kim, K., Park, J., Poon, et al
  2021; 12 (1): 7034
- **Photochemistry democratizes 3D nanoprinting** *NATURE PHOTONICS*
  Braun, P. V., Brongersma, M. L.
  2021; 15 (12): 871-873
- **Non-local metasurfaces for spectrally decoupled wavefront manipulation and eye tracking.** *Nature nanotechnology*
  Song, J., van de Groep, J., Kim, S. J., Brongersma, M. L.
  2021
- **Self-Assembled Nano-Lotus Pod Metasurface for Light Trapping** *ACS PHOTONICS*
  Lee, N., Kim, R., Kim, J., Ko, J., Park, S., Kim, S., Brongersma, M. L., Shin, J.
  2021; 8 (6): 1616-1622
- **Plasmon Launching and Scattering by Silicon Nanoparticles** *ACS PHOTONICS*
  Assadillayev, A., Hinamoto, T., Fujii, M., Sugimoto, H., Brongersma, M. L., Raza, S.
  2021; 8 (6): 1582-1591
- **Fundamental Limitations of Huygens' Metasurfaces for Optical Beam Shaping** *LASER & PHOTONICS REVIEWS*
  Gigli, C., Li, Q., Chavel, P., Leo, G., Brongersma, M. L., Lalanne, P.
  2021
- **Structural color from a coupled nanowire pair beyond the bonding and antibonding model** *OPTICA*
  Li, Q., Wu, T., van de Groep, J., Lalanne, P., Brongersma, M. L.
  2021; 8 (4): 464-470
- **Electrical tuning of phase-change antennas and metasurfaces.** *Nature nanotechnology*
  Wang, Y., Landreman, P., Schoen, D., Okabe, K., Marshall, A., Celano, U., Wong, H. P., Park, J., Brongersma, M. L.
  2021
- **High-Performance p-n Junction Transition Metal Dichalcogenide Photovoltaic Cells Enabled by MoOx Doping and Passivation.** *Nano letters*
  Nassiri Nazif, K., Kumar, A., Hong, J., Lee, N., Islam, R., McClellan, C. J., Karni, O., van de Groep, J., Heinz, T. F., Pop, E., Brongersma, M. L., Saraswat, K. C.
  2021
- **Atomic-Scale Control of Coherent Thermal Radiation** *ACS PHOTONICS*
  Zhao, B., Song, J., Brongersma, M., Fan, S.
  2021; 8 (3): 872–78
- **Nanoelectromechanical modulation of a strongly-coupled plasmonic dimer.** *Nature communications*
  Song, J., Raza, S., van de Groep, J., Kang, J., Li, Q., Kik, P. G., Brongersma, M. L.
  2021; 12 (1): 48
- **The road to atomically thin metasurface optics** *NANOPHOTONICS*
  Brongersma, M. L.
  2021; 10 (1): 643–54

- **Exciton Resonance Tuning in Atomically-Thin Optical Elements**
  van de Groep, J., Song, J., Li, Q., Celano, U., Kik, P. G., Brongersma, M. L., IEEE
  IEEE.2021
- **Quantitative Phase Contrast Imaging using Guided-mode Resonator Devices**
  Ji, A., Song, J., Li, Q., Kik, P. G., Miller, D. A. B., Brongersma, M. L., IEEE
  IEEE.2021
- **Direct laser writing of volumetric gradient index lenses and waveguides.** *Light, science & applications*
  Ocier, C. R., Richards, C. A., Bacon-Brown, D. A., Ding, Q., Kumar, R., Garcia, T. J., van de Groep, J., Song, J., Cyphersmith, A. J., Rhode, A., Perry, A. N., Littlefield, A. J., Zhu, et al
  2020; 9 (1): 196
- **Monolithic Full-Stokes Near-Infrared Polarimetry with Chiral Plasmonic Metasurface Integrated Graphene-Silicon Photodetector.** *ACS nano*
  Li, L., Wang, J., Kang, L., Liu, W., Yu, L., Zheng, B., Brongersma, M. L., Werner, D. H., Lan, S., Shi, Y., Xu, Y., Wang, X.
  2020
- **All-solid-state spatial light modulator with independent phase and amplitude control for three-dimensional LiDAR applications.** *Nature nanotechnology*
  Park, J., Jeong, B. G., Kim, S. I., Lee, D., Kim, J., Shin, C., Lee, C. B., Otsuka, T., Kyoung, J., Kim, S., Yang, K., Park, Y., Lee, et al
  2020
- **An Over-Coupled Phase-Change Metasurface for Efficient Reflection Phase Modulation** *ADVANCED OPTICAL MATERIALS*
  Park, J., Kim, S., Landreman, P., Brongersma, M. L.
  2020
- **High quality factor phase gradient metasurfaces.** *Nature nanotechnology*
  Lawrence, M., Barton, D. R., Dixon, J., Song, J., van de Groep, J., Brongersma, M. L., Dionne, J. A.
  2020
- **Free-standing 2.7 mu m thick ultrathin crystalline silicon solar cell with efficiency above 12.0% (vol 70, 104466, 2020)** *NANO ENERGY*
  Xue, M., Nazif, K., Lyu, Z., Jiang, J., Lu, C., Lee, N., Zang, K., Chen, Y., Zheng, T., Kamins, T. I., Brongersma, M. L., Saraswat, K. C., Harris, et al
  2020; 72
- **Exciton resonance tuning of an atomically thin lens** *NATURE PHOTONICS*
  van de Groep, J., Song, J., Celano, U., Li, Q., Kik, P. G., Brongersma, M. L.
  2020
- **Free-standing 2.7 mu m thick ultrathin crystalline silicon solar cell with efficiency above 12.0%** *NANO ENERGY*
  Xue, M., Nazif, K., Lyu, Z., Jiang, J., Lu, C., Lee, N., Zang, K., Chen, Y., Zheng, T., Kamins, T., Brongersma, M. L., Saraswat, K. C., Harris, et al
  2020; 70
- **Strained bilayer WSe2 with reduced exciton-phonon coupling** *PHYSICAL REVIEW B*
  Asian, O., Deng, M., Brongersma, M. L., Heinz, T. F.
  2020; 101 (11)
- **Electrotunable liquid sulfur microdroplets.** *Nature communications*
  Zhou, G. n., Yang, A. n., Wang, Y. n., Gao, G. n., Pei, A. n., Yu, X. n., Zhu, Y. n., Zong, L. n., Liu, B. n., Xu, J. n., Liu, N. n., Zhang, J. n., Li, et al
  2020; 11 (1): 606
- **Metasurface-driven OLED displays beyond 10,000 pixels per inch.** *Science (New York, N.Y.)*
  Joo, W. J., Kyoung, J. n., Esfandyarpour, M. n., Lee, S. H., Koo, H. n., Song, S. n., Kwon, Y. N., Song, S. H., Bae, J. C., Jo, A. n., Kwon, M. J., Han, S. H., Kim, et al
  2020; 370 (6515): 459–63
- **Transparent multispectral photodetectors mimicking the human visual system.** *Nature communications*
  Li, Q., van de Groep, J., Wang, Y., Kik, P. G., Brongersma, M. L.
  2019; 10 (1): 4982
- **Spin-Switched Three-Dimensional Full-Color Scenes Based on a Dielectric Meta-hologram** *ACS PHOTONICS*

Feng, H., Li, Q., Wan, W., Song, J., Gong, Q., Brongersma, M. L., Li, Y.
2019; 6 (11): 2910–16

- **Anisotropic Metasurfaces as Tunable SERS Substrates for 2D Materials** *ACS PHOTONICS*
  Thareja, V., Esfandyarpour, M., Kik, P. G., Brongersma, M. L.
  2019; 6 (8): 1996–2004
- **A Light-Field Metasurface for High-Resolution Single-Particle Tracking** *NANO LETTERS*
  Holsteen, A. L., Lin, D., Kauvar, I., Wetzstein, G., Brongersma, M. L.
  2019; 19 (4): 2267–71
- **A Light-Field Metasurface for High-Resolution Single-Particle Tracking.** *Nano letters*
  Holsteen, A. L., Lin, D., Kauvar, I., Wetzstein, G., Brongersma, M. L.
  2019
- **Probing the Band Structure of Topological Silicon Photonic Lattices in the Visible Spectrum.** *Physical review letters*
  Peng, S., Schilder, N. J., Ni, X., van de Groep, J., Brongersma, M. L., Alù, A., Khanikaev, A. B., Atwater, H. A., Polman, A.
  2019; 122 (11): 117401
- **Probing the Band Structure of Topological Silicon Photonic Lattices in the Visible Spectrum** *PHYSICAL REVIEW LETTERS*
  Peng, S., Schilder, N. J., Ni, X., van de Groep, J., Brongersma, M. L., Alu, A., Khanikaev, A. B., Atwater, H. A., Polman, A.
  2019; 122 (11)
- **Antireflection High-Index Metasurfaces Combining Mie and Fabry-Perot Resonances** *ACS PHOTONICS*
  Cordaro, A., van de Groep, J., Raza, S., Pecora, E., Priolo, F., Brongersma, M. L.
  2019; 6 (2): 453–59
- **Subwavelength angle-sensing photodetectors inspired by internally coupled ears in small animals**
  Yi, S., Zhou, M., Yu, Z., Fan, P., Behdad, N., Lin, D., Wang, K., Fan, S., Brongersm, M.
  edited by Panchapakesan, B., Attias, A. J.
  SPIE-INT SOC OPTICAL ENGINEERING.2019
- **Dynamic Tuning of Gap Plasmon Resonances Using a Solid-State Electrochromic Device.** *Nano letters*
  Li, Y. n., van de Groep, J. n., Talin, A. A., Brongersma, M. L.
  2019
- **Spatiotemporal light control with active metasurfaces.** *Science (New York, N.Y.)*
  Shaltout, A. M., Shalaev, V. M., Brongersma, M. L.
  2019; 364 (6441)
- **Spatiotemporal light control with frequency-gradient metasurfaces.** *Science (New York, N.Y.)*
  Shaltout, A. M., Lagoudakis, K. G., van de Groep, J. n., Kim, S. J., Vučković, J. n., Shalaev, V. M., Brongersma, M. L.
  2019; 365 (6451): 374–77
- **Temporal color mixing and dynamic beam shaping with silicon metasurfaces.** *Science (New York, N.Y.)*
  Holsteen, A. L., Cihan, A. F., Brongersma, M. L.
  2019; 365 (6450): 257–60
- **Reversible and selective ion intercalation through the top surface of few-layer MoS2.** *Nature communications*
  Zhang, J., Yang, A., Wu, X., van de Groep, J., Tang, P., Li, S., Liu, B., Shi, F., Wan, J., Li, Q., Sun, Y., Lu, Z., Zheng, et al
  2018; 9 (1): 5289
- **Reversible and selective ion intercalation through the top surface of few-layer MoS2** *NATURE COMMUNICATIONS*
  Zhang, J., Yang, A., Wu, X., van de Groep, J., Tang, P., Li, S., Liu, B., Shi, F., Wan, J., Li, Q., Sun, Y., Lu, Z., Zheng, et al
  2018; 9
- **Dynamic thermal emission control with InAs-based plasmonic metasurfaces.** *Science advances*
  Park, J., Kang, J., Liu, X., Maddox, S. J., Tang, K., McIntyre, P. C., Bank, S. R., Brongersma, M. L.
  2018; 4 (12): eaat3163

- **Subwavelength angle-sensing photodetectors inspired by directional hearing in small animals (vol 13, pg 1143, 2018)** *NATURE NANOTECHNOLOGY*
  Yi, S., Zhou, M., Yu, Z., Fan, P., Behdad, N., Lin, D., Wang, K., Fan, S., Brongersma, M.
  2018; 13 (12): 1191
- **Dynamic thermal emission control with InAs-based plasmonic metasurfaces** *SCIENCE ADVANCES*
  Park, J., Kang, J., Liu, X., Maddox, S. J., Tang, K., McIntyre, P. C., Bank, S. R., Brongersma, M. L.
  2018; 4 (12)
- **Subwavelength angle-sensing photodetectors inspired by directional hearing in small animals** *NATURE NANOTECHNOLOGY*
  Yi, S., Zhou, M., Yu, Z., Fan, P., Behdad, N., Lin, D., Wang, K., Fan, S., Brongersma, M.
  2018; 13 (12): 1143-+
- **Order and Disorder Embedded in a Spectrally Interleaved Metasurface** *ACS PHOTONICS*
  Yannai, M., Maguid, E., Faerman, A., Li, Q., Song, J., Kleiner, V., Brongersma, M. L., Hasman, E.
  2018; 5 (12): 4764–68
- **Spectrally interleaved topologies using geometric phase metasurfaces** *OPTICS EXPRESS*
  Yannai, M., Maguid, E., Faerman, A., Li, Q., Song, J., Kleiner, V., Brongersma, M. L., Hasman, E.
  2018; 26 (23): 31031–38
- **Broadband Antireflection Coatings Employing Multiresonant Dielectric Metasurfaces** *ACS PHOTONICS*
  Pecora, E. F., Cordaro, A., Kik, P. G., Brongersma, M. L.
  2018; 5 (11): 4456–62
- **DNA-Assembled Plasmonic Waveguides for Nanoscale Light Propagation to a Fluorescent Nanodiamond** *NANO LETTERS*
  Guer, F. N., McPolin, C. P. T., Raza, S., Mayer, M., Roth, D. J., Steiner, A., Loeffler, M., Fery, A., Brongersma, M. L., Zayats, A. V., Koenig, T. A. F., Schmidt, T. L.
  2018; 18 (11): 7323-7329
- **Epsilon-Near-Zero Si Slot-Waveguide Modulator** *ACS PHOTONICS*
  Liu, X., Zang, K., Kang, J., Park, J., Harris, J. S., Kik, P. G., Brongersma, M. L.
  2018; 5 (11): 4484–90
- **Electrically Tunable, CMOS-Compatible Metamaterial Based on Semiconductor Nanopillars** *ACS PHOTONICS*
  Morea, M., Zang, K., Kamins, T. I., Brongersma, M. L., Harris, J. S.
  2018; 5 (11): 4702–9
- **Subwavelength angle-sensing photodetectors inspired by directional hearing in small animals.** *Nature nanotechnology*
  Yi, S., Zhou, M., Yu, Z., Fan, P., Behdad, N., Lin, D., Wang, K. X., Fan, S., Brongersma, M.
  2018
- **DNA-Assembled Plasmonic Waveguides for Nanoscale Light Propagation to a Fluorescent Nanodiamond.** *Nano letters*
  Gur, F. N., McPolin, C. P., Raza, S., Mayer, M., Roth, D. J., Steiner, A. M., Loffler, M., Fery, A., Brongersma, M. L., Zayats, A. V., Konig, T. A., Schmidt, T. L.
  2018
- **Polarization-independent metasurface lens employing the Pancharatnam-Berry phase** *OPTICS EXPRESS*
  Lin, D., Holsteen, A. L., Maguid, E., Fan, P., Kik, P. G., Hasman, E., Brongersma, M. L.
  2018; 26 (19): 24835–42
- **Optical emission near a high-impedance mirror.** *Nature communications*
  Esfandyarpour, M., Curto, A. G., Kik, P. G., Engheta, N., Brongersma, M. L.
  2018; 9 (1): 3224
- **Optical emission near a high-impedance mirror** *NATURE COMMUNICATIONS*
  Esfandyarpour, M., Curto, A. G., Kik, P. G., Engheta, N., Brongersma, M. L.
  2018; 9
- **Electrochemical Fabrication of Flat, Polymer-Embedded Porous Silicon 1D Gradient Refractive Index Microlens Arrays**

Krueger, N. A., Holsteen, A. L., Zhao, Q., Kang, S., Ocier, C. R., Zhou, W., Mensing, G., Rogers, J. A., Brongersma, M. L., Braun, P. V.
WILEY-V C H VERLAG GMBH.2018

- **Metasurface Mirrors for External Control of Mie Resonances** *NANO LETTERS*
van de Groep, J., Brongersma, M. L.
2018; 18 (6): 3857-3864

- **Metasurface Mirrors for External Control of Mie Resonances.** *Nano letters*
van de Groep, J., Brongersma, M. L.
2018

- **Silicon Mie resonators for highly directional light emission from monolayer MoS2** *NATURE PHOTONICS*
Cihan, A., Curto, A. G., Raza, S., Kik, P. G., Brongersma, M. L.
2018; 12 (5): 284-+

- **Spatially controlled doping of two-dimensional SnS2 through intercalation for electronics** *NATURE NANOTECHNOLOGY*
Gong, Y., Yuan, H., Wu, C., Tang, P., Yang, S., Yang, A., Li, G., Liu, B., van de Groep, J., Brongersma, M. L., Chisholm, M. F., Zhang, S., Zhou, et al
2018; 13 (4): 294-+

- **Tuning of Plasmons in Transparent Conductive Oxides by Carrier Accumulation** *ACS PHOTONICS*
Liu, X., Kang, J., Yuan, H., Park, J., Cui, Y., Hwang, H. Y., Brongersma, M. L.
2018; 5 (4): 1493–98

- **Thermoplasmonic Ignition of Metal Nanoparticles** *NANO LETTERS*
Mutlu, M., Kang, J., Raza, S., Schoen, D., Zheng, X., Kik, P. G., Brongersma, M. L.
2018; 18 (3): 1699–1706

- **Anti-Hermitian photodetector facilitating efficient subwavelength photon sorting** *NATURE COMMUNICATIONS*
Kim, S., Kang, J., Mutlu, M., Park, J., Park, W., Goodson, K. E., Sinclair, R., Fan, S., Kik, P. G., Brongersma, M. L.
2018; 9: 316

- **Purcell effect for active tuning of light scattering from semiconductor optical antennas** *SCIENCE*
Holsteen, A. L., Raza, S., Fan, P., Kik, P. G., Brongersma, M. L.
2017; 358 (6369): 1407–10

- **Metasurface electrode light emitting diodes with planar light control** *SCIENTIFIC REPORTS*
Park, Y., Kim, J., Cho, K., Kim, H., Lee, M., Lee, J., Kim, U., Hwang, S., Brongersma, M. L., Roh, Y., Park, Q.
2017; 7: 14753

- **Free-Space Optical Beam Tapping with an All-Silica Metasurface** *ACS PHOTONICS*
Li, Q., Dong, F., Wang, B., Chu, W., Gong, Q., Brongersma, M. L., Li, Y.
2017; 4 (10): 2544–49

- **Electrical tuning of a quantum plasmonic resonance** *NATURE NANOTECHNOLOGY*
Liu, X., Kang, H., Yuan, H., Park, J., Kim, S., Cui, Y., Hwang, H. Y., Brongersma, M. L.
2017; 12 (9): 866-+

- **Multifunctional interleaved geometric-phase dielectric metasurfaces** *LIGHT-SCIENCE & APPLICATIONS*
Maguid, E., Yulevich, I., Yannai, M., Kleiner, V., Brongersma, M. L., Hasman, E.
2017; 6: e17027

- **Applying plasmonics to a sustainable future.** *Science (New York, N.Y.)*
Naldoni, A., Shalaev, V. M., Brongersma, M. L.
2017; 356 (6341): 908-909

- **Optical metasurfaces for high angle steering at visible wavelengths** *SCIENTIFIC REPORTS*
Lin, D., Melli, M., Poliakov, E., St Hilaire, P., Dhuey, S., Peroz, C., Cabrini, S., Brongersma, M., Klug, M.
2017; 7: 2286

- **Device applications of metafilms**
Brongersma, M.

AMER CHEMICAL SOC.2017

- **Observing Plasmon Damping Due to Adhesion Layers in Gold Nanostructures Using Electron Energy Loss Spectroscopy.** *ACS photonics*
  Madsen, S. J., Esfandyarpour, M., Brongersma, M. L., Sinclair, R.
  2017; 4 (2): 268-274
- **Observing Plasmon Damping Due to Adhesion Layers in Gold Nanostructures Using Electron Energy Loss Spectroscopy** *ACS PHOTONICS*
  Madsen, S. J., Esfandyarpour, M., Brongersma, M. L., Sinclair, R.
  2017; 4 (2): 268-274
- **Active flat optics using a guided mode resonance** *OPTICS LETTERS*
  Kim, S. J., Brongersma, M. L.
  2017; 42 (1): 5-8
- **Subwavelength Angle Sensing Photodetector**
  Yi, S., Zhou, M., Yu, Z., Fan, P., Lin, D., Fan, S., Brongersma, M., IEEE
  IEEE.2017
- **Shared-aperture multitasking Pancharatnam-Berry phase dielectric nanoantenna array**
  Maguid, E., Yulevich, I., Yannai, M., Kleiner, V., Brongersma, M. L., Hasman, E., IEEE
  IEEE.2017
- **All-Silica Multifunctional Beam Information Detector without Destroying Original Wave Fronts**
  Li, Q., Dong, F., Wang, B., Chu, W., Gong, Q., Brongersma, M. L., Li, Y., IEEE
  IEEE.2017
- **Spin-Controlled Multifunctional Metasurfaces**
  Maguid, E., Yulevich, I., Yannai, M., Kleiner, V., Brongersma, M. L., Hasman, E., IEEE
  IEEE.2017
- **Dynamic Reflection Phase and Polarization Control in Metasurfaces** *NANO LETTERS*
  Park, J., Kang, J., Kim, S. J., Liu, X., Brongersma, M. L.
  2017; 17 (1): 407-413
- **Fabry-Perot description for Mie resonances of rectangular dielectric nanowire optical resonators** *OPTICS EXPRESS*
  Landreman, P. E., Chalabi, H., Park, J., Brongersma, M. L.
  2016; 24 (26): 29761-29773
- **Electron energy-loss spectroscopy of branched gap plasmon resonators** *NATURE COMMUNICATIONS*
  Raza, S., Esfandyarpour, M., Koh, A. L., Mortensen, N. A., Brongersma, M. L., Bozhevolnyi, S. I.
  2016; 7
- **Plasmonic Photodetectors, Photovoltaics, and Hot-Electron Devices** *PROCEEDINGS OF THE IEEE*
  Brongersma, M. L.
  2016; 104 (12): 2349-2361
- **Photonic Multitasking Interleaved Si Nanoantenna Phased Array** *NANO LETTERS*
  Lin, D., Holsteen, A. L., Maguid, E., Wetzstein, G., Kik, P. G., Hasman, E., Brongersma, M. L.
  2016; 16 (12): 7671-7676
- **Porous Silicon Gradient Refractive Index Micro-Optics** *NANO LETTERS*
  Krueger, N. A., Holsteen, A. L., Kang, S., Ocier, C. R., Zhou, W., Mensing, G., Rogers, J. A., Brongersma, M. L., Braun, P. V.
  2016; 16 (12): 7402-7407
- **Optically resonant dielectric nanostructures** *SCIENCE*
  Kuznetsov, A. I., Miroshnichenko, A. E., Brongersma, M. L., Kivshar, Y. S., Luk'yanchuk, B.
  2016; 354 (6314): 846-?
- **Focused thermal emission from a nanostructured SiC surface** *PHYSICAL REVIEW B*
  Chalabi, H., Alu, A., Brongersma, M. L.

2016; 94 (9)

- **Picosecond Electric-Field-Induced Threshold Switching in Phase-Change Materials.** *Physical review letters*
  Zalden, P., Shu, M. J., Chen, F., Wu, X., Zhu, Y., Wen, H., Johnston, S., Shen, Z., Landreman, P., Brongersma, M., Fong, S. W., Wong, H. P., Sher, et al
  2016; 117 (6): 067601-?
- **Photonic spin-controlled multifunctional shared-aperture antenna array** *SCIENCE*
  Maguid, E., Yulevich, I., Veksler, D., Kleiner, V., Brongersma, M. L., Hasman, E.
  2016; 352 (6290): 1202-1206
- **Superabsorbing, Artificial Metal Films Constructed from Semiconductor Nanoantennas** *NANO LETTERS*
  Kim, S. J., Park, J., Esfandyarpour, M., Pecora, E. F., Kik, P. G., Brongersma, M. L.
  2016; 16 (6): 3801-3808
- **Combined electron energy-loss and cathodoluminescence spectroscopy on individual and composite plasmonic nanostructures** *PHYSICAL REVIEW B*
  Coenen, T., Schoen, D. T., Brenny, B. J., Polman, A., Brongersma, M. L.
  2016; 93 (19)
- **Probing the electrical switching of a memristive optical antenna by STEM EELS.** *Nature communications*
  Schoen, D. T., Holsteen, A. L., Brongersma, M. L.
  2016; 7: 12162-?
- **Engineering optical properties of semiconductor metafilm superabsorbers**
  Kim, S., Fan, P., Kang, J., Brongersma, M. L.
  edited by Boardman, A. D., Johnson, N. P., MacDonald, K. F., Ozbay, E.
  SPIE-INT SOC OPTICAL ENGINEERING.2016
- **Backward Phase-Matching in Negative-Index Materials**
  Lan, S., Kang, L., Schoen, D. T., Rodrigues, S. P., Cui, Y., Brongersma, M. L., Cai, W., IEEE
  IEEE.2016
- **Photonic Spin-Controlled Multifunctional Shared-Aperture Antenna Array**
  Maguid, E., Yulevich, I., Veksler, D., Kleiner, V., Brongersma, M. L., Hasman, E., IEEE
  IEEE.2016: 200–201
- **Tensile-Strained GeSn Photodetectors with Conformal Nitride Stressor**
  Morea, M., Zang, K., Fenrich, C. S., Huang, Y., Chung, H., Curto, A. G., Huo, Y., Kamins, T. I., Brongersma, M. L., Harris, J. S., IEEE
  IEEE.2016: 21–22
- **Electrically Tunable Epsilon-Near-Zero (ENZ) Metafilm Absorbers** *SCIENTIFIC REPORTS*
  Park, J., Kang, J., Liu, X., Brongersma, M. L.
  2015; 5
- **Nanoscale Spatial Coherent Control over the Modal Excitation of a Coupled Plasmonic Resonator System** *NANO LETTERS*
  Coenen, T., Schoen, D. T., Mann, S. A., Rodriguez, S. R., Brenny, B. J., Polman, A., Brongersma, M. L.
  2015; 15 (11): 7666-7670
- **Li Intercalation in MoS2: In Situ Observation of Its Dynamics and Tuning Optical and Electrical Properties** *NANO LETTERS*
  Xiong, F., Wang, H., Liu, X., Sun, J., Brongersma, M., Pop, E., Cui, Y.
  2015; 15 (10): 6777-6784
- **Backward phase-matching for nonlinear optical generation in negative-index materials** *NATURE MATERIALS*
  Lan, S., Kang, L., Schoen, D. T., Rodrigues, S. P., Cui, Y., Brongersma, M. L., Cai, W.
  2015; 14 (8): 807-?
- **Backward phase-matching for nonlinear optical generation in negative-index materials.** *Nature materials*
  Lan, S., Kang, L., Schoen, D. T., Rodrigues, S. P., Cui, Y., Brongersma, M. L., Cai, W.
  2015; 14 (8): 807-11

- **Gap Plasmon Resonance in a Suspended Plasmonic Nanowire Coupled to a Metallic Substrate** *NANO LETTERS*
  Miyata, M., Holsteen, A., Nagasaki, Y., Brongersma, M. L., Takahara, J.
  2015; 15 (8): 5609-5616
- **Ultrafast Carrier Dynamics of a Photo-Excited Germanium Nanowire-Air Metamaterial** *ACS PHOTONICS*
  Li, Y., Clady, R., Marshall, A. F., Park, J., Thombare, S. V., Chan, G., Schmidt, T. W., Brongersma, M. L., McIntyre, P. C.
  2015; 2 (8): 1091-1098
- **Polarization-sensitive broadband photodetector using a black phosphorus vertical p-n junction** *NATURE NANOTECHNOLOGY*
  Yuan, H., Liu, X., Afshinmanesh, F., Li, W., Xu, G., Sun, J., Lian, B., Curto, A. G., Ye, G., Hikita, Y., Shen, Z., Zhang, S., Chen, et al
  2015; 10 (8): 707-713
- **Tuning Optical Absorption in an Ultrathin Lossy Film by Use of a Metallic Metamaterial Mirror** *IEEE PHOTONICS TECHNOLOGY LETTERS*
  Park, J., Kang, J., Kim, S. J., Hasman, E., Brongersma, M. L.
  2015; 27 (15): 1617-1620
- **Creating semiconductor metafilms with designer absorption spectra** *NATURE COMMUNICATIONS*
  Kim, S. J., Fan, P., Kang, J., Brongersma, M. L.
  2015; 6
- **Bandgap-customizable germanium using lithographically determined biaxial tensile strain for silicon-compatible optoelectronics** *OPTICS EXPRESS*
  Sukhdeo, D. S., Nam, D., Kang, J., Brongersma, M. L., Saraswat, K. C.
  2015; 23 (13): 16740-16749
- **Monolithic integration of germanium-on-insulator p-i-n photodetector on silicon** *OPTICS EXPRESS*
  Nam, J. H., Afshinmanesh, F., Nam, D., Jung, W. S., Kamins, T. I., Brongersma, M. L., Saraswat, K. C.
  2015; 23 (12): 15816-15823
- **Effect of shape in near-field thermal transfer for periodic structures** *PHYSICAL REVIEW B*
  Chalabi, H., Hasman, E., Brongersma, M. L.
  2015; 91 (17)
- **Condition for unity absorption in an ultrathin and highly lossy film in a Gires-Tournois interferometer configuration** *OPTICS LETTERS*
  Park, J., Kim, S. J., Brongersma, M. L.
  2015; 40 (9): 1960-1963
- **Lateral overgrowth of germanium for monolithic integration of germanium-on-insulator on silicon** *JOURNAL OF CRYSTAL GROWTH*
  Nam, J. H., Alkis, S., Nam, D., Afshinmanesh, F., Shim, J., Park, J., Brongersma, M., Okyay, A. K., Kamins, T. I., Saraswat, K.
  2015; 416: 21-27
- **Electrically tunable coherent optical absorption in graphene with ion gel.** *Nano letters*
  Thareja, V., Kang, J., Yuan, H., Milaninia, K. M., Hwang, H. Y., Cui, Y., Kik, P. G., Brongersma, M. L.
  2015; 15 (3): 1570-1576
- **Shape-Dependent Light Scattering Properties of Subwavelength Silicon Nanoblocks** *NANO LETTERS*
  Ee, H., Kang, J., Brongersma, M. L., Seo, M.
  2015; 15 (3): 1759-1765
- **Probing Complex Reflection Coefficients in One-Dimensional Surface Plasmon Polariton Waveguides and Cavities Using STEM EELS.** *Nano letters*
  Schoen, D. T., Atre, A. C., García-Etxarri, A., Dionne, J. A., Brongersma, M. L.
  2015; 15 (1): 120-126
- **Near-field radiative thermal transfer between a nanostructured periodic material and a planar substrate** *PHYSICAL REVIEW B*
  Chalabi, H., Hasman, E., Brongersma, M. L.
  2015; 91 (1)
- **Significant enhancement of infrared photodetector sensitivity using a semiconducting single-walled carbon nanotube/c60 phototransistor.** *Advanced materials*

Park, S., Kim, S. J., Nam, J. H., Pitner, G., Lee, T. H., Ayzner, A. L., Wang, H., Fong, S. W., Vosgueritchian, M., Park, Y. J., Brongersma, M. L., Bao, Z.
2015; 27 (4): 759-765

- **Device Applications of Semiconductor Nanoantennas and Metafilms**
Brongersma, M. L.
edited by Engheta, N., Noginov, M. A., Zheludev, N. I.
SPIE-INT SOC OPTICAL ENGINEERING.2015

- **Device applications of metafilms and metasurfaces**
Brongersma, M. L.
edited by Engheta, N., Noginov, M. A., Zheludev, N. I.
SPIE-INT SOC OPTICAL ENGINEERING.2015

- **Creating semiconductor metafilms with designer absorption spectra.** *Nature communications*
Kim, S. J., Fan, P., Kang, J., Brongersma, M. L.
2015; 6: 7591-?

- **Introductory lecture: nanoplasmonics** *FARADAY DISCUSSIONS*
Brongersma, M. L.
2015; 178: 9-36

- **Plasmon-induced hot carrier science and technology** *NATURE NANOTECHNOLOGY*
Brongersma, M. L., Halas, N. J., Nordlander, P.
2015; 10 (1): 25-34

- **An ab-initio coupled mode theory for near field radiative thermal transfer** *OPTICS EXPRESS*
Chalabi, H., Hasman, E., Brongersma, M. L.
2014; 22 (24): 30032-30046

- **Quantification and impact of nonparabolicity of the conduction band of indium tin oxide on its plasmonic properties** *APPLIED PHYSICS LETTERS*
Liu, X., Park, J., Kang, J., Yuan, H., Cui, Y., Hwang, H. Y., Brongersma, M. L.
2014; 105 (18)

- **Observation of improved minority carrier lifetimes in high-quality Ge-on-insulator using time-resolved photoluminescence** *OPTICS LETTERS*
Nam, D., Kang, J., Brongersma, M. L., Saraswat, K. C.
2014; 39 (21): 6205-6208

- **Transparent metallic fractal electrodes for semiconductor devices.** *Nano letters*
Afshinmanesh, F., Curto, A. G., Milaninia, K. M., van Hulst, N. F., Brongersma, M. L.
2014; 14 (9): 5068-5074

- **Transparent Metallic Fractal Electrodes for Semiconductor Devices** *NANO LETTERS*
Afshinmanesh, F., Curto, A. G., Milaninia, K. M., van Hulst, N. F., Brongersma, M. L.
2014; 14 (9): 5068-5074

- **Omnidirectional Near-Unity Absorption in an Ultrathin Planar Semiconductor Layer on a Metal Substrate** *ACS PHOTONICS*
Park, J., Kang, J., Vasudev, A. P., Schoen, D. T., Kim, H., Hasman, E., Brongersma, M. L.
2014; 1 (9): 812-821

- **Dielectric gradient metasurface optical elements.** *Science*
Lin, D., Fan, P., Hasman, E., Brongersma, M. L.
2014; 345 (6194): 298-302

- **Study of Carrier Statistics in Uniaxially Strained Ge for a Low-Threshold Ge Laser** *IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS*
Nam, D., Sukhdeo, D. S., Gupta, S., Kang, J., Brongersma, M. L., Saraswat, K. C.
2014; 20 (4)

- **Metamaterial mirrors in optoelectronic devices.** *Nature nanotechnology*
  Esfandyarpour, M., Garnett, E. C., Cui, Y., McGehee, M. D., Brongersma, M. L.
  2014; 9 (7): 542-547
- **Ultrafast electron and phonon response of oriented and diameter-controlled germanium nanowire arrays.** *Nano letters*
  Li, Y., Clady, R., Park, J., Thombare, S. V., Schmidt, T. W., Brongersma, M. L., McIntyre, P. C.
  2014; 14 (6): 3427-3431
- **Second-Harmonic Generation in GaAs Photonic Crystal Cavities in (111)B and (001) Crystal Orientations** *ACS PHOTONICS*
  Buckley, S., Radulaski, M., Petykiewicz, J., Lagoudakis, K. G., Kang, J., Brongersma, M., Biermann, K., Vuckovic, J.
  2014; 1 (6): 516-523
- **Direct bandgap germanium-on-silicon inferred from 5.7% < 100 > uniaxial tensile strain [Invited]** *PHOTONICS RESEARCH*
  Sukhdeo, D. S., Nam, D., Kang, J., Brongersma, M. L., Saraswat, K. C.
  2014; 2 (3): A8-A13
- **Optical Fano resonance of an individual semiconductor nanostructure** *NATURE MATERIALS*
  Fan, P., Yu, Z., Fan, S., Brongersma, M. L.
  2014; 13 (5): 471-475
- **Light management for photovoltaics using high-index nanostructures** *NATURE MATERIALS*
  Brongersma, M. L., Cui, Y., Fan, S.
  2014; 13 (5): 451-460
- **Light trapping for solar fuel generation with mie resonances.** *Nano letters*
  Kim, S. J., Thomann, I., Park, J., Kang, J., Vasudev, A. P., Brongersma, M. L.
  2014; 14 (3): 1446-1452
- **Hot-electron photodetection with a plasmonic nanostripe antenna.** *Nano letters*
  Chalabi, H., Schoen, D., Brongersma, M. L.
  2014; 14 (3): 1374-1380
- **Electrically driven subwavelength optical nanocircuits** *NATURE PHOTONICS*
  Huang, K. C., Seo, M., Sarmiento, T., Huo, Y., Harris, J. S., Brongersma, M. L.
  2014; 8 (3): 244-249
- **Nearly Total Solar Absorption in Ultrathin Nanostructured Iron Oxide for Efficient Photoelectrochemical Water Splitting** *ACS PHOTONICS*
  Wang, K. X., Wu, Z., Liu, V., Brongersma, M. L., Jaramillo, T. F., Fan, S.
  2014; 1 (3): 235-240
- **Deep-subwavelength semiconductor nanowire surface plasmon polariton couplers.** *Nano letters*
  Landreman, P. E., Brongersma, M. L.
  2014; 14 (2): 429-434
- **Chair Gordon Conference on Plasmonics**
  Brongersma, M., L.
  2014
- **Electrically-driven surface plasmonic nano-circuits**
  Seo, M., Huang, K. C. Y., Sarmiento, T., Huo, Y., Harris, J. S., Brongersma, M. L., IEEE
  IEEE.2014
- **Mimicking Heterostructure Behavior Within a Single Material at Room Temperature Using Strain**
  Sukhdeo, D. S., Nam, D., Kang, J., Petykiewicz, J., Lee, J., Jung, W., Vuckovic, J., Brongersma, M. L., Saraswat, K. C., IEEE
  IEEE.2014
- **Perfect Sunlight Absorption in Iron Oxide Photoanode**
  Wang, K., Yu, Z., Liu, V., Brongersma, M., Jaramillo, T., Fang, S., IEEE
  IEEE.2014

- **Electrifying photonic metamaterials for tunable nonlinear optics.** *Nature communications*
  Kang, L., Cui, Y., Lan, S., Rodrigues, S. P., Brongersma, M. L., Cai, W.
  2014; 5: 4680-?
- **Two-dimensional chalcogenide nanoplates as tunable metamaterials via chemical intercalation.** *Nano letters*
  Cha, J. J., Koski, K. J., Huang, K. C., Wang, K. X., Luo, W., Kong, D., Yu, Z., Fan, S., Brongersma, M. L., Cui, Y.
  2013; 13 (12): 5913-5918
- **Two-Dimensional Chalcogenide Nanoplates as Tunable Metamaterials via Chemical Intercalation** *NANO LETTERS*
  Cha, J. J., Koski, K. J., Huang, K. C., Wan, K. X., Luo, W., Kong, D., Yu, Z., Fan, S., Brongersma, M. L., Cui, Y.
  2013; 13 (12): 5913-5918
- **Compact aperiodic metallic groove arrays for unidirectional launching of surface plasmons.** *Nano letters*
  Huang, X., Brongersma, M. L.
  2013; 13 (11): 5420-5424
- **Electro-optical modulation of a silicon waveguide with an "epsilon-near-zero" material.** *Optics express*
  Vasudev, A. P., Kang, J., Park, J., Liu, X., Brongersma, M. L.
  2013; 21 (22): 26387-26397
- **Broadband Sharp 90-degree Bends and T-Splitters in Plasmonic Coaxial Waveguides.** *Nano letters*
  Shin, W., Cai, W., Catrysse, P. B., Veronis, G., Brongersma, M. L., Fan, S.
  2013; 13 (10): 4753-4758
- **Strain-induced pseudoheterostructure nanowires confining carriers at room temperature with nanoscale-tunable band profiles.** *Nano letters*
  Nam, D., Sukhdeo, D. S., Kang, J., Petykiewicz, J., Lee, J. H., Jung, W. S., Vuckovic, J., Brongersma, M. L., Saraswat, K. C.
  2013; 13 (7): 3118-3123
- **Self-assembly based plasmonic arrays tuned by atomic layer deposition for extreme visible light absorption.** *Nano letters*
  Hägglund, C., Zeltzer, G., Ruiz, R., Thomann, I., Lee, H., Brongersma, M. L., Bent, S. F.
  2013; 13 (7): 3352-3357
- **Self-Assembly Based Plasmonic Arrays Tuned by Atomic Layer Deposition for Extreme Visible Light Absorption** *NANO LETTERS*
  Haegglund, C., Zeltzer, G., Ruiz, R., Thomann, I., Lee, H., Brongersma, M. L., Bent, S. F.
  2013; 13 (7): 3352-3357
- **Strain-Induced Pseudoheterostructure Nanowires Confining Carriers at Room Temperature with Nanoscale-Tunable Band Profiles** *NANO LETTERS*
  Nam, D., Sukhdeo, D. S., Kang, J., Petykiewicz, J., Lee, J. H., Jung, W. S., Vuckovic, J., Brongersma, M. L., Saraswat, K. C.
  2013; 13 (7): 3118-3123
- **Effects of surface oxide formation on germanium nanowire band-edge photoluminescence** *APPLIED PHYSICS LETTERS*
  Hashemi, F. S., Thombare, S., Fontcuberta i Morral, A., Brongersma, M. L., McIntyre, P. C.
  2013; 102 (25)
- **Geometric light trapping with a V-trap for efficient organic solar cells** *OPTICS EXPRESS*
  Kim, S. J., Margulis, G. Y., Rim, S., Brongersma, M. L., McGehee, M. D., Peumans, P.
  2013; 21 (9): A305-A312
- **Geometric light trapping with a V-trap for efficient organic solar cells.** *Optics express*
  Kim, S. J., Margulis, G. Y., Rim, S., Brongersma, M. L., McGehee, M. D., Peumans, P.
  2013; 21: A305-12
- **PLASMONICS Harvest season for hot electrons** *NATURE NANOTECHNOLOGY*
  Chalabi, H., Brongersma, M. L.
  2013; 8 (4): 229-230
- **Redesigning Photodetector Electrodes as an Optical Antenna** *NANO LETTERS*
  Fan, P., Huang, K. C., Cao, L., Brongersma, M. L.

2013; 13 (2): 392-396

- **The Planar Parabolic Optical Antenna** *NANO LETTERS*
  Schoen, D. T., Coenen, T., Garcia de Abajo, F. J., Brongersma, M. L., Polman, A.
  2013; 13 (1): 188-193
- **Broadband Sharp 90-degree Bends and T-Splitters in Plasmonic Coaxial Waveguides** *Nano Letters*
  Fan, S., H., Shin, W., Cai, W., S., Catrysse et al., P., B.
  2013; 13 (10): 4753-4758
- **Plasmonic and Semiconductor Building Blocks for Nanophotonic Devices**
  Brongersma, M. L., IEEE
  IEEE.2013
- **Plasmonic nano-coaxial waveguides for 90-degree bends and T-splitters**
  Shin, W., Cai, W., Catrysse, P. B., Veronis, G., Brongersma, M. L., Fan, S., IEEE
  IEEE.2013
- **Optimization of non-periodic plasmonic light-trapping layers for thin-film solar cells.** *Nature communications*
  Pala, R. A., Liu, J. S., Barnard, E. S., Askarov, D., Garnett, E. C., Fan, S., Brongersma, M. L.
  2013; 4: 2095-?
- **Compact Aperiodic Metallic Groove Arrays for Unidirectional Launching of Surface Plasmons, Xinpeng Huang** *Nano Lett*
  Brongersma, Mark, L., Krishna, C., White, Justin, S., Wahl, P., Brongersma, Mark, L., Miller, David, A.B.
  2013; 13: 5420-5424
- **Two-Dimensional Chalcogenide Nanoplates as Tunable Metamaterials via Chemical Intercalation** *Nano Letters*
  Cha, J.
  2013; 13: 5913-5918
- **Program committee for Section on Light-Matter interactions at the nanoscale**
  Brongersma, M., L.
  2013
- **Plasmonics: Harvest season for hot electrons** *Nature Nanotechnology*
  Chalabi, H., van Blaaderen, A., van Dillen, T., Kats, C., M., Velikov, K., Brongersma, M., L.
  2013; 8: 229–230
- **Geometric tuning of Plasmonic and Semiconductor Resonances in Nanophotonic devices** *Kenote presentation at Meta 13, Sharjah, Dubai*
  Brongersma, Mark, L., Barnard, Edward, S., Cai, W., Brongersma, Mark, L.
  2013
- **Program committee for Section on Nanophotonics**
  Brongersma, M., L.
  2013
- **Program Committee of the Nanometa 2013 conference**
  Brongersma, M., L.
  2013
- **One of the 5 Meeting Chairs for the 2013 Materials Research Society Spring Meeting.**
  Brongersma, M., L.
  2013
- **Plasmonic and Semiconductor Building Blocks**
  Brongersma, M., L.
  2013
- **Program committee of the SPIE conference on Metamaterials: Fundamentals and Applications**
  Brongersma, M., L.

2013

- **Optical Nanostructures and Advanced Materials for Photovoltaics**
  Brongersma, M., L.
  2013
- **Electrically Driven Plasmonic Nanocircuits** *Breakthrough talk at Nano Meta 2013, Seefeld, Austria*
  Brongersma, Mark, L., Vasudev, Alok, P., Brongersma, Mark, L.
  2013
- **Optimization of non-periodic plasmonic light-trapping layers for thin-film solar cells.** *Nature communications*
  Pala, R. A., Liu, J. S., Barnard, E. S., Askarov, D., Garnett, E. C., Fan, S., Brongersma, M. L.
  2013; 4: 2095-?
- **Plasmonics in optoelectronic devices** *NANOTECHNOLOGY*
  Demming, A., Brongersma, M., Kim, D. S.
  2012; 23 (44)
- **An Electrically-Driven GaAs Nanowire Surface Plasmon Source** *NANO LETTERS*
  Fan, P., Colombo, C., Huang, K. C., Krogstrup, P., Nygard, J., Fontcuberta i Morral, A., Brongersma, M. L.
  2012; 12 (9): 4943-4947
- **Antenna electrodes for controlling electroluminescence** *NATURE COMMUNICATIONS*
  Huang, K. C., Seo, M., Huo, Y., Sarmiento, T., Harris, J. S., Brongersma, M. L.
  2012; 3
- **Direct-gap photoluminescence from germanium nanowires** *PHYSICAL REVIEW B*
  Kawamura, Y., Huang, K. C., Thombare, S. V., Hu, S., Gunji, M., Ishikawa, T., Brongersma, M. L., Itoh, K. M., McIntyre, P. C.
  2012; 86 (3)
- **An invisible metal-semiconductor photodetector** *NATURE PHOTONICS*
  Fan, P., Chettiar, U. K., Cao, L., Afshinmanesh, F., Engheta, N., Brongersma, M. L.
  2012; 6 (6): 380-385
- **A micromachining-based technology for enhancing germanium light emission via tensile strain** *NATURE PHOTONICS*
  Jain, J. R., Hryciw, A., Baer, T. M., Miller, D. A., Brongersma, M. L., Howe, R. T.
  2012; 6 (6): 398-405
- **Hybrid Silicon Nanocone-Polymer Solar Cells** *NANO LETTERS*
  Jeong, S., Garnett, E. C., Wang, S., Yu, Z., Fan, S., Brongersma, M. L., McGehee, M. D., Cui, Y.
  2012; 12 (6): 2971-2976
- **Nanophotonic light trapping with patterned transparent conductive oxides** *OPTICS EXPRESS*
  Vasudev, A. P., Schuller, J. A., Brongersma, M. L.
  2012; 20 (10): A385-A394
- **Electroluminescence from strained germanium membranes and implications for an efficient Si-compatible laser** *APPLIED PHYSICS LETTERS*
  Nam, D., Sukhdeo, D., Cheng, S., Roy, A., Huang, K. C., Brongersma, M., Nishi, Y., Saraswat, K.
  2012; 100 (13)
- **Self-limited plasmonic welding of silver nanowire junctions** *NATURE MATERIALS*
  Garnett, E. C., Cai, W., Cha, J. J., Mahmood, F., Connor, S. T., Christoforo, M. G., Cui, Y., McGehee, M. D., Brongersma, M. L.
  2012; 11 (3): 241-249
- **Thermal Stability and Surface Passivation of Ge Nanowires Coated by Epitaxial SiGe Shells** *NANO LETTERS*
  Hu, S., Kawamura, Y., Huang, K. C., Li, Y., Marshall, A. F., Itoh, K. M., Brongersma, M. L., McIntyre, P. C.
  2012; 12 (3): 1385-1391
- **Metal-dielectric-metal surface plasmon-polariton resonators** *PHYSICAL REVIEW B*
  Chandran, A., Barnard, E. S., White, J. S., Brongersma, M. L.

2012; 85 (8)

- **Ultrathin crystalline-silicon solar cells with embedded photonic crystals** *APPLIED PHYSICS LETTERS*
  Mallick, S. B., Agrawal, M., Wangperawong, A., Barnard, E. S., Singh, K. K., Visser, R. J., Brongersma, M. L., Peumans, P.
  2012; 100 (5)
- **Highly-Strained Germanium as a Gain Medium for Silicon-Compatible Lasers** *Conference on Lasers and Electro-Optics (CLEO)*
  Sukhdeo, D., Nam, D., Cheng, S., Yuan, Z., Roy, A., Huang, K. C., Brongersma, M., Nishi, Y., Saraswat, K.
  IEEE.2012
- **Smart & Adaptive Optics**
  Brongersma, M., L.
  2012
- **Excitons and Plasmon Resonances in Nanostructures III**
  Brongersma, M., L.
  2012
- **Routing and photodetection in subwavelength plasmonic slot waveguides** *Nanophotonics*
  Ly-Gagnon 1, D., Brongersma, M., L., Snoeks, E., Polman, A.
  2012; 1: 9–16
- **Metal-dielectric-metal surface plasmon-polariton resonators** *Phys. Rev*
  Chandran, A., White, Justin, S., Park, J., Schuller, Jon, A., Clemens, Bruce, M., Brongersma, Mark, L.
  2012; B 85: 85416
- **Antenna electrodes for optical sources and solar cells** *Keynote presentation at the SPIE Annual Meeting, San Diego*
  Brongersma, Mark, L., Thombare, S., Morral, A. F., Brongersma, Mark, L., McIntyre, Paul, C.
  2012
- **Electrical control of plasmonic Nanodevices** *SPIE Newsroom.*
  Cai, W., Sukhdeo, D., Roy, A., Balram, K., Cheng, S., Huang, K. C., Brongersma, M. L.
  2012
- **Optical antennas for information technology and energy harvesting** *Optical Antenna Theory, Design and Applications*
  Brongersma, M.
  edited by Alù, A., Engheta, N.
  Cambridge University Press.2012: 1
- **Plasmonics** *Short course at the Conference on Lasers and Electro-optics CLEO US, San Jose*
  Brongersma, Mark, L., Selker, Mark, D., Catrysse, Peter, B., Brongersma, Mark, L.
  2012
- **Plasmonic and Semiconductor Building Blocks for Hybrid Nanophotonic Devices**
  Brongersma, M., L.
  2012
- **International program Committee of the 12th Near-field Optics**
  Brongersma, M., L.
  2012
- **Vice Chair Gordon Conference on Plasmonics**
  Brongersma, M., L.
  2012
- **Rolling mask nanolithography: the pathway to large area and low cost nanofabrication**
  Kobrin, B., Barnard, Edward, S., Brongersma, Mark, L., Kwak, M. K., Guo, L., Jay
  2012
- **Measurement of the polarization state of light using an integrated plasmonic polarimeter** *Nanophotonics*
  Afshinmanesh, F., Brongersma, Mark, L.

2012; 1: 125–129

- **Smart & Adaptive Optics**
  Brongersma, M., L.
  2012
- **Excitons and Plasmon Resonances in Nanostructures III**
  Brongersma, M., L.
  2012
- **Routing and photodetection in subwavelength plasmonic slot waveguides** *Nanophotonics*
  Ly-Gagnon 1, D., Brongersma, M., L., Snoeks, E., Polman, A.
  2012; 1: 9–16
- **Metal-dielectric-metal surface plasmon-polariton resonators** *Phys. Rev*
  Chandran, A., White, Justin, S., Park, J., Schuller, Jon, A., Clemens, Bruce, M., Brongersma, Mark, L.
  2012; B 85: 85416
- **Antenna electrodes for optical sources and solar cells** *Keynote presentation at the SPIE Annual Meeting, San Diego*
  Brongersma, Mark, L., Thombare, S., Morral, A. F., Brongersma, Mark, L., McIntyre, Paul, C.
  2012
- **Strained germanium thin film membrane on silicon substrate for optoelectronics** *OPTICS EXPRESS*
  Nam, D., Sukhdeo, D., Roy, A., Balram, K., Cheng, S., Huang, K. C., Yuan, Z., Brongersma, M., Nishi, Y., Miller, D., Saraswat, K.
  2011; 19 (27): 25866-25872
- **Rapid computation of light scattering from aperiodic plasmonic structures** *PHYSICAL REVIEW B*
  Huang, X., Brongersma, M. L.
  2011; 84 (24)
- **Engineering light absorption in single-nanowire solar cells with metal nanoparticles** *NEW JOURNAL OF PHYSICS*
  Colombo, C., Krogstrup, P., Nygard, J., Brongersma, M. L., Fontcuberta i Morral, A.
  2011; 13
- **A submicron plasmonic dichroic splitter** *NATURE COMMUNICATIONS*
  Liu, J. S., Pala, R. A., Afshinmanesh, F., Cai, W., Brongersma, M. L.
  2011; 2
- **Imaging the Hidden Modes of Ultrathin Plasmonic Strip Antennas by Cathodoluminescence** *NANO LETTERS*
  Barnard, E. S., Coenen, T., Vesseur, E. J., Polman, A., Brongersma, M. L.
  2011; 11 (10): 4265-4269
- **Tensile-strained germanium-on-insulator substrate fabrication for silicon-compatible optoelectronics** *OPTICAL MATERIALS EXPRESS*
  Jain, J. R., Ly-Gagnon, D., Balram, K. C., White, J. S., Brongersma, M. L., Miller, D. A., Howe, R. T.
  2011; 1 (6): 1121-1126
- **Power flow from a dipole emitter near an optical antenna** *OPTICS EXPRESS*
  Huang, K. C., Jun, Y. C., Seo, M., Brongersma, M. L.
  2011; 19 (20): 19084-19092
- **Electrically Controlled Nonlinear Generation of Light with Plasmonics** *SCIENCE*
  Cai, W., Vasudev, A. P., Brongersma, M. L.
  2011; 333 (6050): 1720-1723
- **Photocurrent mapping of near-field optical antenna resonances** *NATURE NANOTECHNOLOGY*
  Barnard, E. S., Pala, R. A., Brongersma, M. L.
  2011; 6 (9): 588-593
- **Plasmon Enhanced Solar-to-Fuel Energy Conversion** *NANO LETTERS*
  Thomann, I., Pinaud, B. A., Chen, Z., Clemens, B. M., Jaramillo, T. F., Brongersma, M. L.

2011; 11 (8): 3440-3446

- **Sombrero-Shaped Plasmonic Nanoparticles with Molecular-Level Sensitivity and Multifunctionality** *ACS NANO*
  Wi, J., Barnard, E. S., Wilson, R. J., Zhang, M., Tang, M., Brongersma, M. L., Wang, S. X.
  2011; 5 (8): 6449-6457
- **Multiple-Wavelength Focusing of Surface Plasmons with a Nonperiodic Nanoslit Coupler** *NANO LETTERS*
  Tanemura, T., Balram, K. C., Ly-Gagnon, D., Wahl, P., White, J. S., Brongersma, M. L., Miller, D. A.
  2011; 11 (7): 2693-2698
- **Plasmonic beaming and active control over fluorescent emission** *NATURE COMMUNICATIONS*
  Jun, Y. C., Huang, K. C., Brongersma, M. L.
  2011; 2
- **Optical Coupling of Deep-Subwavelength Semiconductor Nanowires** *NANO LETTERS*
  Cao, L., Fan, P., Brongersma, M. L.
  2011; 11 (4): 1463-1468
- **Atomic Layer Deposition of Lead Sulfide Quantum Dots on Nanowire Surfaces** *NANO LETTERS*
  Dasgupta, N. P., Jung, H. J., Trejo, O., McDowell, M. T., Hryciw, A., Brongersma, M., Sinclair, R., Prinz, F. B.
  2011; 11 (3): 934-940
- **Thermo-optic tuning of erbium-doped amorphous silicon nitride microdisk resonators** *APPLIED PHYSICS LETTERS*
  Hryciw, A. C., Kekatpure, R. D., Yerci, S., Dal Negro, L., Brongersma, M. L.
  2011; 98 (4)
- **Plasmonic Dye-Sensitized Solar Cells** *ADVANCED ENERGY MATERIALS*
  Ding, I., Zhu, J., Cai, W., Moon, S., Cai, N., Wang, P., Zakeeruddin, S. M., Graetzel, M., Brongersma, M. L., Cui, Y., McGehee, M. D.
  2011; 1 (1): 52-57
- **Applications: Nanophotonics and Plasmonics** *NANOTECHNOLOGY RESEARCH DIRECTIONS FOR SOCIETAL NEEDS IN 2020: RETROSPECTIVE AND OUTLOOK*
  Hu, E. L., Brongersma, M., Baca, A., Roco, M., Mirkin, C., Hersam, M.
  2011; 1: 417–44
- **Modification of the spontaneous emission rate of nitrogen-vacancy centers in diamond by coupling to plasmons** *Conference on Advances in Photonics of Quantum Computing, Memory, and Communication IV*
  Faraon, A., Jun, Y. C., Barclay, P. E., Fu, K. C., Santori, C. M., Brongersma, M. L., Beausoleil, R. G.
  SPIE-INT SOC OPTICAL ENGINEERING.2011
- **Effect of illlumination on thermionic emission from microfabricated silicon carbide structures** *16th International Solid-State Sensors, Actuators and Microsystems, Beijing, China*
  Lee, J., H., Brongersma, Mark, L.
  2011
- **Modification of the spontaneous emission rate of nitrogen-vacancy centers in diamond by coupling to plasmons** *Advances in Photonics of Quantum Computing, Memory, and Communication IV, San Francisco, CA*
  Faraon, A., White, J., Barnard, E., Liu, J., Brongersma, Mark, L.
  2011
- **Hybrid Semiconductor/Plasmonic Devices for Nanophotonics** *Keynote presentation at the SPIE Annual Meeting, San Diego*
  Brongersma, Mark, L., Fan, P., Vasudev, Alok, P., White, Justin, S., Yu, Z., Cai, W.
  2011
- **Guest Editor for special Green Photonics issue for the Journal of Optics**
  Brongersma, Mark, L., Pala, R., Brongersma, Mark, L.
  2011
- **Plasmons and rust for solar energy conversion**
  Thomann, I., Pinaud, B., Pala, R., Seo, M., Chen, Z., Jaramillo, T., Brongersma, M. L.
  2011

- **Nanoplasmonics** *course at the Conference on Lasers and Electro-optics CLEO Europe, Munich, Germany*
  Brongersma, Mark, L., Brongersma, M. L.
  2011
- **Program Committee for the Annual OSA meeting on Integrated Photonics Research**
  Brongersma, M., L.
  2011
- **Guest Editor for a special Plasmonics issue for the journal Nanotechnology**
  Brongersma, Mark, L., Park, J., Fan, P., Clemens, B., Brongersma, Mark, L.
  2011
- **Submicron plasmonic dichroic splitter** *Nature Communications*
  Liu, John, S.Q.
  2011; 2: 525
- **Strained Germanium Membrane using Thin Film Stressor for High Efficiency Laser** *Conference on Lasers and Electro-Optics (CLEO)*
  Nam, D., Roy, A. M., Huang, K. C., Brongersma, M. L., Saraswat, K. C.
  IEEE.2011
- **Nanowire Solar Cells** *ANNUAL REVIEW OF MATERIALS RESEARCH, VOL 41*
  Garnett, E. C., Brongersma, M. L., Cui, Y., McGehee, M. D.
  2011; 41: 269-295
- **An Integrated Plasmonic Polarimeter** *Conference on Lasers and Electro-Optics (CLEO)*
  Afshinmanesh, F., White, J. S., Cai, W., Brongersma, M. L.
  IEEE.2011
- **Elements for Plasmonic Nanocircuits with Three-Dimensional Slot Waveguides** *ADVANCED MATERIALS*
  Cai, W., Shin, W., Fan, S., Brongersma, M. L.
  2010; 22 (45): 5120-?
- **High Excitation Transfer Efficiency from Energy Relay Dyes in Dye-Sensitized Solar Cells** *NANO LETTERS*
  Hardin, B. E., Yum, J., Hoke, E. T., Jun, Y. C., Pechy, P., Torres, T., Brongersma, M. L., Nazeeruddin, M. K., Graetzel, M., McGehee, M. D.
  2010; 10 (8): 3077-3083
- **Response to "Comment on 'Energy transfer in nanowire solar cells with photon-harvesting shells'" [J. Appl. Phys. 105, 124509 (2009)]** *JOURNAL OF APPLIED PHYSICS*
  Peters, C. H., Guichard, A. R., Hryciw, A. C., Brongersma, M. L., McGehee, M. D.
  2010; 108 (2)
- **Tuning the Color of Silicon Nanostructures** *NANO LETTERS*
  Cao, L., Fan, P., Barnard, E. S., Brown, A. M., Brongersma, M. L.
  2010; 10 (7): 2649-2654
- **NANOSCALE OPTICS Plasmonics gets transformed** *NATURE NANOTECHNOLOGY*
  Cai, W., Brongersma, M. L.
  2010; 5 (7): 485-486
- **Phase-Coupled Plasmon-Induced Transparency** *PHYSICAL REVIEW LETTERS*
  Kekatpure, R. D., Barnard, E. S., Cai, W., Brongersma, M. L.
  2010; 104 (24)
- **Strong Modification of Quantum Dot Spontaneous Emission via Gap Plasmon Coupling in Metal Nanoslits** *JOURNAL OF PHYSICAL CHEMISTRY C*
  Jun, Y. C., Pala, R., Brongersma, M. L.
  2010; 114 (16): 7269-7273
- **APPLIED PHYSICS The Case for Plasmonics** *SCIENCE*
  Brongersma, M. L., Shalaev, V. M.

2010; 328 (5977): 440-441

- **Resonant Germanium Nanoantenna Photodetectors** *NANO LETTERS*
  Cao, L., Park, J., Fan, P., Clemens, B., Brongersma, M. L.
  2010; 10 (4): 1229-1233
- **Spatially resolved Raman spectroscopy on indium-catalyzed core-shell germanium nanowires: size effects** *NANOTECHNOLOGY*
  Xiang, Y., Zardo, I., Cao, L. Y., Garma, T., Heiss, M., Morante, J. R., Arbiol, J., Brongersma, M. L., Morral, A. F.
  2010; 21 (10)
- **Plasmonics for extreme light concentration and manipulation** *NATURE MATERIALS*
  Schuller, J. A., Barnard, E. S., Cai, W., Jun, Y. C., White, J. S., Brongersma, M. L.
  2010; 9 (3): 193-204
- **Semiconductor Nanowire Optical Antenna Solar Absorbers** *NANO LETTERS*
  Cao, L., Fan, P., Vasudev, A. P., White, J. S., Yu, Z., Cai, W., Schuller, J. A., Fan, S., Brongersma, M. L.
  2010; 10 (2): 439-445
- **PLASMONICS Electrifying plasmonics on silicon** *NATURE MATERIALS*
  Hryciw, A., Jun, Y. C., Brongersma, M. L.
  2010; 9 (1): 3-4
- **Program Committee Photonics for Solar Energy Systems (part of SPIE Photonics Europe)**
  Brongersma, M., L.
  2010
- **Nanotechnology Research Directions** *A World Technology Evaluation Center (WTEC) study, Chicago*
  Brongersma, Mark, L., Kekapture, Rohan, D., White, Justin, S., Brongersma, Mark, L.
  2010
- **Program Committee for the Annual OSA meeting on Integrated Photonics Research**
  Brongersma, M., L.
  2010
- **Nature Communications**
  Brongersma, Mark, L., Brongersma, Mark, L.
  2010
- **Active Plasmonic Devices Employing Extreme Light Concentration** *Gordon Conference on Plasmonics, New Hampshire*
  Brongersma, Mark, L., Sukhdeo, David, S., Kang, J., Petykiewicz, J., Lee, J. H., Jung, W. S.
  2010
- **Program Chair for the Optical Nanostructures for Photovoltaics (PV) conference**
  Brongersma, M., L.
  2010
- **Plasmonic, Semiconductor, and Dielectric Building Blocks for Nanophotonics** *Keynote presentation at the SPIE Annual Meeting, San Diego*
  Brongersma, Mark, L., Chandran, A., Brongersma, Mark, L.
  2010
- **Recent Advances in Plasmonic Device Technologies** *Plenary presentation at the Annual Integrated Photonic Research (IPR) conference, Monterey*
  Brongersma, Mark, L., Brongersma, M., L., Polman, A.
  2010
- **Plasmonics gets transformed** *Nature Nanotechnology*
  Cai, W., Bell, L., D., Santamore, D., H., Brongersma, M., L., Atwater, H., A.
  2010; 5: 485 - 486
- **Silicon nanowire hybrid photovoltaics**
  Garnett, E., C., Peters, C., Brongersma, M., Cui, Y., McGehee, M., D.

2010

- **Applications: Nanophotonics and Plasmonics** *WTEC (World Technology Evaluation Center) study on 'Nanotechnology Research Directions. As the National Nanotechnology Initiative entered into its next decade, WTEC carried out a study to assess the progress made and to anticipate future challenges and opportunities for research in nanotechnology.*
  Hu, E., L., Brongersma, M., L., Baca, A.
  Springer.2010: 1

- **The Case for Plasmonics** *Science*
  Brongersma, M. L.
  2010; 328: 440-441

- **Plasmonics: A Focus on Light Concentration** *Keynote presentation at the SPIE Annual Meeting, San Diego*
  Brongersma, Mark, L., Brongersma, M., L., Bell, L., D., Atwater, H., A.
  2010

- **Electrifying plasmonics on silicon** *Nature Materials*
  Hryciw, A., Coenen, T., Vesseur, Ernst, Jan R., Polman, A., Brongersma, Mark, L.
  2010; 9: 3-4

- **Plasmonic Solar Cells with Broadband Absorption Enhancements** *Conference on Lasers and Electro-Optics (CLEO)/Quantum Electronics and Laser Science Conference (QELS)*
  Pala, R. A., Barnard, E. S., White, J. S., Brongersma, M. L.
  IEEE.2010

- **Passive Building Blocks for Plasmonics Nanocircuits with Three-dimensional Slot Waveguides** *Conference on Lasers and Electro-Optics (CLEO)/Quantum Electronics and Laser Science Conference (QELS)*
  Cai, W., Brongersma, M. L.
  IEEE.2010

- **Plasmonic Solar Cells with Broadband Absorption Enhancements** *Conference on Lasers and Electro-Optics (CLEO)/Quantum Electronics and Laser Science Conference (QELS)*
  Pala, R. A., Barnard, E. S., White, J. S., Brongersma, M. L.
  IEEE.2010

- **SILICON NANOWIRE HYBRID PHOTOVOLTAICS** *35th IEEE Photovoltaic Specialists Conference*
  Garnett, E. C., Peters, C., Brongersma, M., Cui, Y., McGehee, M.
  IEEE.2010: 934–938

- **Solving Dielectric and Plasmonic Dispersion Equations on a Pocket Calculator** *Conference on Lasers and Electro-Optics (CLEO)/Quantum Electronics and Laser Science Conference (QELS)*
  Kekatpure, R. D., Hryciw, A. C., Barnard, E. S., Brongersma, M. L.
  IEEE.2010

- **Mid-IR plasmonic antennas on silicon-rich oxinitride absorbing substrates: Nonlinear scaling of resonance wavelengths with antenna length** *APPLIED PHYSICS LETTERS*
  Sikola, T., Kekatpure, R. D., Barnard, E. S., White, J. S., Van Dorpe, P., Brinek, L., Tomanec, O., Zlamal, J., Lei, D. Y., Sonnefraud, Y., Maier, S. A., Humlicek, J., Brongersma, et al
  2009; 95 (25)

- **Solving dielectric and plasmonic waveguide dispersion relations on a pocket calculator** *OPTICS EXPRESS*
  Kekatpure, R. D., Hryciw, A. C., Barnard, E. S., Brongersma, M. L.
  2009; 17 (26): 24112-24129

- **General properties of dielectric optical antennas** *OPTICS EXPRESS*
  Schuller, J. A., Brongersma, M. L.
  2009; 17 (26): 24084-24095

- **Compact, High-Speed and Power-Efficient Electrooptic Plasmonic Modulators** *NANO LETTERS*
  Cai, W., White, J. S., Brongersma, M. L.
  2009; 9 (12): 4403-4411

- **Optical antenna thermal emitters** *NATURE PHOTONICS*
  Schuller, J. A., Taubner, T., Brongersma, M. L.
  2009; 3 (11): 658-661
- **Near-infrared free-carrier absorption in silicon nanocrystals** *OPTICS LETTERS*
  Kekatpure, R. D., Brongersma, M. L.
  2009; 34 (21): 3397-3399
- **Side-coupled cavity model for surface plasmon-polariton transmission across a groove** *OPTICS EXPRESS*
  Liu, J. S., White, J. S., Fan, S., Brongersma, M. L.
  2009; 17 (20): 17837-17848
- **Design of Plasmonic Thin-Film Solar Cells with Broadband Absorption Enhancements** *ADVANCED MATERIALS*
  Pala, R. A., White, J., Barnard, E., Liu, J., Brongersma, M. L.
  2009; 21 (34): 3504-?
- **Engineering light absorption in semiconductor nanowire devices** *NATURE MATERIALS*
  Cao, L., White, J. S., Park, J., Schuller, J. A., Clemens, B. M., Brongersma, M. L.
  2009; 8 (8): 643-647
- **Nonradiative recombination in strongly interacting silicon nanocrystals embedded in amorphous silicon-oxide films** *PHYSICAL REVIEW B*
  Rowlette, J. A., Kekatpure, R. D., Panzer, M. A., Brongersma, M. L., Goodson, K. E.
  2009; 80 (4)
- **Single crystalline and core-shell indium-catalyzed germanium nanowires-a systematic thermal CVD growth study** *NANOTECHNOLOGY*
  Xiang, Y., Cao, L., Conesa-Boj, S., Estrade, S., Arbiol, J., Peiro, F., Heiss, M., Zardo, I., Morante, J. R., Brongersma, M. L., Fontcuberta i Morral, A.
  2009; 20 (24)
- **Energy transfer in nanowire solar cells with photon-harvesting shells**
  Peters, C. H., Guichard, A. R., Hryciw, A. C., Brongersma, M. L., McGehee, M. D.
  AMER INST PHYSICS.2009
- **Broadband enhancement of light emission in silicon slot waveguides** *OPTICS EXPRESS*
  Jun, Y. C., Briggs, R. M., Atwater, H. A., Brongersma, M. L.
  2009; 17 (9): 7479-7490
- **Synthesis parameter space of bismuth catalyzed germanium nanowires** *APPLIED PHYSICS LETTERS*
  Xiang, Y., Cao, L., Arbiol, J., Brongersma, M. L., Fontcuberta i Morral, A.
  2009; 94 (16)
- **Metal-dielectric-metal plasmonic waveguide devices for manipulating light at the nanoscale** *CHINESE OPTICS LETTERS*
  Veronis, G., Yu, Z., Kocabas, S. E., Miller, D. A., Brongersma, M. L., Fang, S.
  2009; 7 (4): 302-308
- **Extraordinary optical absorption through subwavelength slits** *OPTICS LETTERS*
  White, J. S., Veronis, G., Yu, Z., Barnard, E. S., Chandran, A., Fan, S., Brongersma, M. L.
  2009; 34 (5): 686-688
- **Plasmon-enhanced emission from optically-doped MOS light sources** *OPTICS EXPRESS*
  Hryciw, A. C., Jun, Y. C., Brongersma, M. L.
  2009; 17 (1): 185-192
- **Planar Lenses Based on Nanoscale Slit Arrays in a Metallic Film** *NANO LETTERS*
  Verslegers, L., Catrysse, P. B., Yu, Z., White, J. S., Barnard, E. S., Brongersma, M. L., Fan, S.
  2009; 9 (1): 235-238
- **Program Committee Near-Field Optics (NFO10) Conference**
  Brongersma, M., L.
  2009

- **Program Committee Nanometa-2009**
  Brongersma, M., L.
  2009
- **Plasmonics and Metamaterials: Introduction** *J. Opt. Soc. Am. B26, PM1*
  Boardman, A., Bell, L., D., Brongersma, M., L., Atwater, H., A.
  2009; B26, PM1
- **Plasmonics** *Short course at the Conference on Lasers and Electro-optics CLEO Europe, Munich, Germany*
  Brongersma, Mark, L., Zia, R., Yanik, M., F., Fan, S., Brongersma, M., L.
  2009
- **Planar Lenses Based on Nanoscale Slit Arrays in a Metallic Film** *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS 2009)*
  Verslegers, L., Catrysse, P. B., Yu, Z., White, J. S., Barnard, E. S., Brongersma, M. L., Fan, S.
  IEEE.2009: 3224–3225
- **Ultrafast developments** *NATURE PHOTONICS*
  Cao, L., Brongersma, M. L.
  2009; 3 (1): 12-13
- **Guest Editor for Plasmonics and Metamaterials issue for the Journal of the Optical Society of America**
  Brongersma, Mark, L., Barnard, E., Cai, W., Jun, Y. C., White, J., Brongersma, Mark, L.
  2009
- **Active Plasmonics Ultrafast Developments** *Nature Photonics*
  Cao, L., Zeltzer, G., Ruiz, R., Thomann, I., Lee, H., Brongersma, Mark, L.
  2009; 12: 3
- **Plasmonics: The Next Wave of Chipscale Technologies**
  Brongersma, M., L.
  2009
- **Program Committee Near-Field Optics (NFO10) Conference**
  Brongersma, M., L.
  2009
- **Program Committee Nanometa-2009**
  Brongersma, M., L.
  2009
- **Plasmonics and Metamaterials: Introduction** *J. Opt. Soc. Am. B26, PM1*
  Boardman, A., Bell, L., D., Brongersma, M., L., Atwater, H., A.
  2009; B26, PM1
- **Plasmonics** *Short course at the Conference on Lasers and Electro-optics CLEO Europe, Munich, Germany*
  Brongersma, Mark, L., Zia, R., Yanik, M., F., Fan, S., Brongersma, M., L.
  2009
- **Planar Lenses Based on Nanoscale Slit Arrays in a Metallic Film** *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS 2009)*
  Verslegers, L., Catrysse, P. B., Yu, Z., White, J. S., Barnard, E. S., Brongersma, M. L., Fan, S.
  IEEE.2009: 3224–3225
- **Ultrafast developments** *NATURE PHOTONICS*
  Cao, L., Brongersma, M. L.
  2009; 3 (1): 12-13
- **Temperature-dependent Auger recombination dynamics in luminescent silicon nanowires** *PHYSICAL REVIEW B*
  Guichard, A. R., Kekatpure, R. D., Brongersma, M. L., Kamins, T. I.

2008; 78 (23)

- **Quantification of Free-Carrier Absorption in Silicon Nanocrystals with an Optical Microcavity** *NANO LETTERS*
  Kekatpure, R. D., Brongersma, M. L.
  2008; 8 (11): 3787-3793
- **Spectral properties of plasmonic resonator antennas** *OPTICS EXPRESS*
  Barnard, E. S., White, J. S., Chandran, A., Brongersma, M. L.
  2008; 16 (21): 16529-16537
- **Nonresonant enhancement of spontaneous emission in metal-dielectric-metal plasmon waveguide structures** *PHYSICAL REVIEW B*
  Jun, Y. C., Kekatpure, R. D., White, J. S., Brongersma, M. L.
  2008; 78 (15)
- **Fundamental photophysics and optical loss processes in Si-nanocrystal-doped microdisk resonators** *PHYSICAL REVIEW A*
  Kekatpure, R. D., Brongersma, M. L.
  2008; 78 (2)
- **Plasmonics - Engineering optical nanoantennas** *NATURE PHOTONICS*
  Brongersma, M. L.
  2008; 2 (5): 270-272
- **A nonvolatile plasmonic switch employing photochromic molecules** *NANO LETTERS*
  Pala, R. A., Shimizu, K. T., Melosh, N. A., Brongersma, M. L.
  2008; 8 (5): 1506-1510
- **Gain-induced switching in metal-dielectric-metal plasmonic waveguides** *APPLIED PHYSICS LETTERS*
  Yu, Z., Veronis, G., Fan, S., Brongersma, M. L.
  2008; 92 (4)
- **Free-carrier Absorption in Si Nanocrystals Probed by Microcavity Photoluminescence** *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS 2008)*
  Kekatpure, R. D., Guichard, A. R., Brongersma, M. L.
  IEEE.2008: 1495–1496
- **Gain-induced switching in metal-dielectric-metal plasmonic waveguides**
  Yu, Z., Veronis, G., Brongersma, M. L., Fan, S.
  edited by Greiner, C. M., Waechter, C. A.
  SPIE-INT SOC OPTICAL ENGINEERING.2008
- **Active plasmonic components employing extreme light concentration** *487, 21st Annual Meeting of the IEEE Lasers and Electro-Optics Society*
  Brongersma, Mark, L., Cai, W., Catrysse, Peter, B.
  2008; 487
- **The dependence of poly-crystalline SiC mid-infrared optical properties on deposition conditions**
  Provine, J., Roper, C., Schuller, J., A., Brongersma, M., L., Maboudian, R., Howe, R., T.
  2008
- **Fundamental photophysics and optical loss processes in Si-nanocrystal doped microcavities** *Phys. Rev.*
  Kekatpure, Rohan, D., Shin, W., Fan, S., Brongersma, Mark, L.
  2008; A 78: 23829
- **Free-carrier absorption in Si nanocrystals probed by microcavity photoluminescence**
  Kekatpure, R., D., Guichard, A., R., Brongersma, M., L.
  2008
- **Nanoplasmonics** *tutorial at the Materials Research Society (MRS) Spring Meeting, San Francisco*
  Brongersma, Mark, L., Kekatpure, Rohan, D., Brongersma, Mark, L., Kamins, Theodore, I.
  2008

- **Plasmonics Bridging the Gap Between Microphotonics and Nanoelectronics**
  Brongersma, M., L.
  2008
- **Photophysics of Si nanostructures: ensembles and single particles**
  Guichard, A., R., Kekatpure, R., D., Brongersma, M., L.
  2008
- **Gain-induced switching in metal-dielectric-metal plasmonic waveguides**
  Yu, Z., Veronis, G., Brongersma, M., L., Fan, S.
  2008
- **Recent Progress in Plasmonics** *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS 2008)*
  Brongersma, M. L.
  IEEE.2008: 3417–3418
- **The Dependence of Poly-crystalline SiC Mid-Infrared Optical Properties on Deposition Conditions** *IEEE/LEOS International Conference on Optical MEMS and Nanophotonics*
  Provine, J., Roper, C., Schuller, J. A., Brongersma, M. L., Maboudian, R., Howe, R. T.
  IEEE.2008: 182–183
- **Photophysics of Si nanostructures: ensembles and single particles** *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS 2008)*
  Guichard, A. R., Kekatpure, R. D., Brongersma, M. L.
  IEEE.2008: 1331–1332
- **Plasmon-assisted local temperature control to pattern individual semiconductor nanowires and carbon nanotubes** *NANO LETTERS*
  Cao, L., Barsic, D. N., Guichard, A. R., Brongersma, M. L.
  2007; 7 (11): 3523-3527
- **Plasmonics - the missing link between nanoelectronics and microphotonics** *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING*
  Brongersma, M. L., Zia, R., Schuller, J. A.
  2007; 89 (2): 221-223
- **Dielectric metamaterials based on electric and magnetic resonances of silicon carbide particles** *PHYSICAL REVIEW LETTERS*
  Schuller, J. A., Zia, R., Taubner, T., Brongersma, M. L.
  2007; 99 (10)
- **Surface plasmon polariton analogue to Young's double-slit experiment** *NATURE NANOTECHNOLOGY*
  Zia, R., Brongersma, M. L.
  2007; 2 (7): 426-429
- **Metal-dielectric slot-waveguide structures for the propagation of surface plasmon polaritons at 1.55 mu m** *IEEE JOURNAL OF QUANTUM ELECTRONICS*
  Feng, N., Brongersma, M. L., Dal Negro, L.
  2007; 43 (5-6): 479-485
- **Omnidirectional light emission via surface plasmon polaritons** *APPLIED PHYSICS LETTERS*
  Liu, J. S., Brongersma, M. L.
  2007; 90 (9)
- **Thin film patterning by surface-plasmon-induced thermocapillarity** *APPLIED PHYSICS LETTERS*
  Roentzsch, L., Heinig, K., Schuller, J. A., Brongersma, M. L.
  2007; 90 (4)
- **High Q/V microdisk resonators for observation of Purcell effect in silicon nanocrystals** *4th IEEE International Conference on Group IV Photonics*
  Kekatpure, R. D., Guichard, A. R., Brongersma, M. L.
  IEEE.2007: 259–261

- **Metal-dielectric slot waveguide structures for the propagation of surface plasmon polaritons at 1.55 μm** *IEEE Journ. Of Quant. Electron.*
  Feng, N., White, Justin, S., Fan, S., Brongersma, Mark, L.
  2007; 43: 479- 485
- **High Q/V microdisk resonators for observation of purcell effect in silicon nanocrystals**
  Kekatpure, R., D., Guichard, A., R., Brongersma, M., L.
  2007
- **Surface Plasmon Nanophotonics** *Surface Plasmon Nanophotonics*
  Kik, Pieter, G., Brongersma, Mark, L.
  edited by Brongersma, Mark, L., Kik, Pieter, G.
  2007: 271
- **Plasmonics – A New Wave of Opportunities** *Briefing of National Academies Committee on Nanophotonics Accessibility and Applicability, Washington DC*
  Brongersma, Mark, L., Brongersma, M., L., Kik, P., G., Atwater, H., A.
  2007
- **Midinfrared Dielectric Metamaterials Based on Electric and Magnetic Mie Resonances of Silicon Carbide Particles** *Phys. Rev. Lett.*
  Schuller, J., A., Guichard, A., R., Hryciw, A., C., Brongersma, M., L., McGehee, M., D.
  2007; 99: 107401
- **Design of mid-infrared photodetectors enhanced by surface plasmons on grating structures**
  Yu, Z., Veronis, G., Brongersma, M., L., Fan, S.
  2007
- **Scientific Advisory Board for the journal "Metamaterials"**
  Brongersma, Mark, L., Polman, A., Min, K., S., Boer, E., Tambo, T., Atwater, H., A.
  2007
- **Plasmonics – The Next Wave of Chipscale Technologies** *NanoMaterials for Defense Applications Symposium, Organized by the US Denfense Agencies, San Diego*
  Brongersma, Mark, L., Brongersma, M., L., Kik, P., G., Meltzer, S., Requicha, A., A.G., Atwater, H., A.
  2007
- **Chipscale Plasmonics and Nanophotonics** *DARPA Components from Metamaterials Workshop, Washington*
  Brongersma, Mark, L., Seo, M., Huo, Y., Sarmiento, T., Harris, James, S., Brongersma, Mark, L.
  2007
- **Plasmonics - The missing link between nanoelectronics and microphotonics** *Progress in Electromagnetics Research Symposium (PIERS 2007)*
  Brongersma, M. L., Zia, R., Schuler, J.
  ELECTROMAGNETICS ACAD.2007: 1043–1045
- **Design of mid-infrared photodetectors enhanced by surface plasmons on grating structures** *Conference on Integrated Optics - Devices, Materials, and Technology XI*
  Yu, Z., Veronis, G., Brongersma, M. L., Fan, S.
  SPIE-INT SOC OPTICAL ENGINEERING.2007
- **Auger recombination in luminescent, CMOS-compatible Si nanowires** *4th IEEE International Conference on Group IV Photonics*
  Guichard, A. R., Kekatpure, R. D., Brongersma, M. L.
  IEEE.2007: 250–252
- **Plasmonics – The Next Wave of Chipscale Technologies** *NanoMaterials for Defense Applications Symposium, Organized by the US Denfense Agencies, San Diego*
  Brongersma, Mark, L., Brongersma, M., L., Kik, P., G., Meltzer, S., Requicha, A., A.G., Atwater, H., A.
  2007
- **Chipscale Plasmonics and Nanophotonics** *DARPA Components from Metamaterials Workshop, Washington*
  Brongersma, Mark, L., Seo, M., Huo, Y., Sarmiento, T., Harris, James, S., Brongersma, Mark, L.

2007

- **Plasmonics - The missing link between nanoelectronics and microphotonics** *Progress in Electromagnetics Research Symposium (PIERS 2007)*
  Brongersma, M. L., Zia, R., Schuler, J.
  ELECTROMAGNETICS ACAD.2007: 1043–1045
- **Design of mid-infrared photodetectors enhanced by surface plasmons on grating structures** *Conference on Integrated Optics - Devices, Materials, and Technology XI*
  Yu, Z., Veronis, G., Brongersma, M. L., Fan, S.
  SPIE-INT SOC OPTICAL ENGINEERING.2007
- **Auger recombination in luminescent, CMOS-compatible Si nanowires** *4th IEEE International Conference on Group IV Photonics*
  Guichard, A. R., Kekatpure, R. D., Brongersma, M. L.
  IEEE.2007: 250–252
- **Probing molecular junctions using surface plasmon resonance spectroscopy** *NANO LETTERS*
  Shimizu, K. T., Pala, R. A., Fabbri, J. D., Brongersma, M. L., Melosh, N. A.
  2006; 6 (12): 2797-2803
- **Plasmon-assisted chemical vapor deposition** *NANO LETTERS*
  Boyd, D. A., Greengard, L., Brongersma, M., El-Naggar, M. Y., Goodwin, D. G.
  2006; 6 (11): 2592-2597
- **Cavity Q measurements of silica microspheres with nanocluster silicon active layer** *IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS*
  Sung, J., Tewary, A., Brongersma, M. L., Shin, J. H.
  2006; 12 (6): 1388-1393
- **Silicon-nanocrystal-coated silica microsphere thermooptical switch** *IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS*
  Tewary, A., Digonnet, M. J., Sung, J., Shin, J. H., Brongersma, M. L.
  2006; 12 (6): 1476-1479
- **Design of midinfrared photodetectors enhanced by surface plasmons on grating structures** *APPLIED PHYSICS LETTERS*
  Yu, Z., Veronis, G., Fan, S., Brongersma, M. L.
  2006; 89 (15)
- **Near-field characterization of guided polariton propagation and cutoff in surface plasmon waveguides** *PHYSICAL REVIEW B*
  Zia, R., Schuller, J. A., Brongersma, M. L.
  2006; 74 (16)
- **Tunable light emission from quantum-confined excitons in TiSi2-catalyzed silicon nanowires** *NANO LETTERS*
  Guichard, A. R., Barsic, D. N., Sharma, S., Kamins, T. I., Brongersma, M. L.
  2006; 6 (9): 2140-2144
- **Plasmonics: the next chip-scale technology** *MATERIALS TODAY*
  Zia, R., Schuller, J. A., Chandran, A., Brongersma, M. L.
  2006; 9 (7-8): 20-27
- **Controlling defect and Si nanoparticle luminescence from silicon oxynitride films with CO2 laser annealing** *APPLIED PHYSICS LETTERS*
  Tewary, A., Kekatpure, R. D., Brongersma, M. L.
  2006; 88 (9)
- **Erbium-implanted silica microsphere laser** *14th International Conference on Ion Beam Modification of Materials (IBMM 2004)*
  Kalkman, J., Polman, A., Kippenberg, T. J., Vahala, K. J., Brongersma, M. L.
  ELSEVIER SCIENCE BV.2006: 182–85
- **Synthesis and optimization of luminescent Si nanoparticles by CO2 laser annealing and Si nanocrystal light emission in microcavities**
  Kekatpure, R., D., Tewary, A., Brongersma, M., L.
  2006

- **Guiding Properties of Surface Plasmon-Polariton Waveguides** *"Nanophotonics with Surface Plasmons" and part of a Elsevier Series on "Advances in Nano-Optics and Nano-Photonics".*
  Zia, R., Brongersma, M.
  edited by Shalaev, V., Kawata, S.
  2006: 1
- **Light emitting silicon nanowires for photonic device applications**
  Guichard, A., R., Brongersma, M., L., Kamins, T., Sharma, S.
  2006
- **Silicon-nanocrystal-coated Silica Microsphere Thermooptical Switch**
  Tewary, A., Digonnet, Michel, J. F., Brongersma, Mark., L., Sung, J., Shin, Jung, H.
  2006
- **Silicon-Based Microphotonics**
  Brongersma, M., L.
  2006
- **Synthesis and optimization of luminescent Si nanoparticles by CO2 laser annealing and Si nanocrystal light emission in microcavities**
  Kekatpure, Rohan, D., Tewary, A., Brongersma, Mark., L.
  2006
- **High-Q whispering gallery modes in wet etched silica microdisk resonators containing silicon nanocrystals**
  Kekatpure, R., D., Brongersma, M., L.
  2006
- **Plasmon** *AccessScience@McGraw-Hill, http://www.accessscience.com*
  Brongersma, Mark, L., Veronis, G., Fan, S., Brongersma, Mark, L.
  2006
- **Synthesis and optimization of luminescent Si nanoparticles by CO2 laser annealing and Si nanocrystal light emission in microcavities** *Conference on Optoelectronic Devices - Physics, Fabrication, and Application III*
  Kekatpure, R. D., Tewary, A., Brongersma, M. L.
  SPIE-INT SOC OPTICAL ENGINEERING.2006
- **Light emitting silicon nanowires for photonic device applications** *3rd International Conference on Group IV Photonics*
  Guichard, A. R., Brongersma, M. L., Kamins, T., Sharma, S.
  IEEE.2006: 137–139
- **Silicon-nanocrystal-coated silica microsphere then-nooptical switch** *Conference on Silicon Photonics*
  Tewary, A., Digonnet, M. J., Brongersma, M. L.
  SPIE-INT SOC OPTICAL ENGINEERING.2006
- **High-Q whispering gallery modes in wet etched silica microdisk resonators containing silicon nanocrystals** *3rd International Conference on Group IV Photonics*
  Kekatpure, R. D., Brongersma, M. L.
  IEEE.2006: 22–24
- **Design of a silicon-based field-effect electro-optic modulator with enhanced light-charge interaction** *OPTICS LETTERS*
  Kekatpure, R. D., Brongersma, M. L., Shenoy, R. S.
  2005; 30 (16): 2149-2151
- **Nanoengineered silicon/silicon dioxide nanoparticle heterostructures** *SOLID STATE SCIENCES*
  Ostraat, M. L., Brongersma, M., Atwater, H. A., Flagan, R. C.
  2005; 7 (7): 882-890
- **Dielectric waveguide model for guided surface polaritons** *OPTICS LETTERS*
  Zia, R., Chandran, A., Brongersma, M. L.
  2005; 30 (12): 1473-1475

- **Leaky and bound modes of surface plasmon waveguides** *PHYSICAL REVIEW B*
  Zia, R., Selker, M. D., Brongersma, M. L.
  2005; 71 (16)
- **Microring and microdisk optical resonators using silicon nanocrystals and erbium prepared using silicon technology** *Symposium of the European-Materials-Research-Society on Si-Based Photonics - Towards True Monolithic Integration*
  Gardner, D. S., Brongersma, M. L.
  ELSEVIER SCIENCE BV.2005: 804–11
- **Sub-wavelength resonances in metal-dielectric-metal plasmonic structures** *18th Annual Meeting of the IEEE-Lasers-and-Electro-Optical-Society*
  Fan, S. H., Shin, H., Brongersma, M., Veronis, G., Shen, J. T., Catrysse, P. B.
  IEEE.2005: 520–521
- **Evidence for stimulated emission in silicon nanocrystal microspheres** *2nd IEEE International Conference on Group IV Photonics*
  Chen, H., Sung, J. Y., Tewary, A., Brongersma, M., Shin, J. H., Fauchet, P. M.
  IEEE.2005: 99–101
- **Sub-wavelength resonances in metal-dielectric-metal plasmonic structures**
  Fan, S.
  2005
- **Plasmonics--Nanoscale Optics and Photonics Based on Metals**
  Brongersma, M., L.
  2005
- **Plasmonic functionality on Si chips** *Silicon Nanoelectronics and Beyond III, Workshop organized by SRC and NSF, National Science Foundation, Arlington, Virginia*
  Brongersma, Mark, L., Brongersma, Mark, L., Atwater, H., A., Flagan, R., C.
  2005
- **The future of Plasmonics and Si microphotonics** *DARPA Frontiers on Quantum Device Engineering Workshop, Los Angeles*
  Brongersma, Mark, L.
  2005
- **Design of Silicon Based Field-Effect Electro-Optic Modulator With Enhanced Light-Charge Interaction** *Opt. Lett.*
  Kekatpure, Rohan, D., Schuller, Jon, A., Brongersma, Mark, L.
  2005; 30: 2149-2151
- **Microring and microdisk optical resonators using silicon nanocrystals and erbium prepared using silicon technology**
  Gardner, D., S., Brongersma, M., L.
  2005
- **Evidence for stimulated emission in silicon nanocrystal microspheres**
  Chen, H., Sung, I., Y., Tewary, A., Brongersma, M., L., Shin, J., H., Fauchet, P., M.
  2005
- **Towards CMOS Compatible Plasmonics and Nanophotonics** *Tutorial at NanoCommerce/SEMI NanoForum, Chicago*
  Brongersma, Mark, L.
  2005
- **Geometries and materials for subwavelength surface plasmon modes** *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION*
  Zia, R., Selker, M. D., Catrysse, P. B., Brongersma, M. L.
  2004; 21 (12): 2442-2446
- **Omnidirectional resonance in a metal-dielectric-metal geometry** *APPLIED PHYSICS LETTERS*
  Shin, H., Yanik, M. F., Fan, S. H., Zia, R., Brongersma, M. L.
  2004; 84 (22): 4421-4423

- **New Materials for Microphotonics**
  Brongersma, M., L.
  2004
- **Towards CMOS Compatible Nanophotonics and Plasmonics**
  Brongersma, M., L.
  2004
- **Nanoshells: gifts in a gold wrapper** *NATURE MATERIALS*
  Brongersma, M. L.
  2003; 2 (5): 296-297
- **Observation of near-field coupling in metal nanoparticle chains using far-field polarization spectroscopy** *PHYSICAL REVIEW B*
  Maier, S. A., Brongersma, M. L., Kik, P. G., Atwater, H. A.
  2002; 65 (19)
- **Electromagnetic energy transport along Yagi arrays** *EMRS Spring Meeting*
  Maier, S. A., Brongersma, M. L., Atwater, H. A.
  ELSEVIER SCIENCE BV.2002: 291–94
- **Electromagnetic energy transport along Yagi arrays** *Mat. Sci. and Eng.*
  Maier, Stefan, A., Pinaud, Blaise, A., Chen, Z., Clemens, Bruce, M., Jaramillo, Thomas, F., Brongersma, Mark, L.
  2002; C19: 291–294
- **Observation of coupled plasmon-polariton modes of plasmon waveguides for electromagnetic energy transport below the diffraction limit** *Symposia on Materials and Devices for Optoelectronics and Photonics/Photonic Crystals - From Materials to Devices held at the 2002 MRS Spring Meeting*
  Maier, S. A., Kik, P. G., Brongersma, M. L., Atwater, H. A., Meltzer, S., Requicha, A. A., Koel, B. E.
  MATERIALS RESEARCH SOCIETY.2002: 431–436
- **Plasmonics - A route to nanoscale optical devices** *ADVANCED MATERIALS*
  Maier, S. A., Brongersma, M. L., Kik, P. G., Meltzer, S., Requicha, A. A., Atwater, H. A.
  2001; 13 (19): 1501-?
- **Models for quantitative charge imaging by atomic force microscopy** *JOURNAL OF APPLIED PHYSICS*
  Boer, E. A., Bell, L. D., Brongersma, M. L., Atwater, H. A.
  2001; 90 (6): 2764-2772
- **Localized charge injection in SiO2 films containing silicon nanocrystals** *APPLIED PHYSICS LETTERS*
  Boer, E. A., Brongersma, M. L., Atwater, H. A., Flagan, R. C., Bell, L. D.
  2001; 79 (6): 791-793
- **Synthesis and characterization of aerosol silicon nanocrystal nonvolatile floating-gate memory devices** *APPLIED PHYSICS LETTERS*
  Ostraat, M. L., De Blauwe, J. W., Green, M. L., Bell, L. D., Brongersma, M. L., Casperson, J., Flagan, R. C., Atwater, H. A.
  2001; 79 (3): 433-435
- **Charging of single Si nanocrystals by atomic force microscopy** *APPLIED PHYSICS LETTERS*
  Boer, E. A., Bell, L. D., Brongersma, M. L., Atwater, H. A., Ostraat, M. L., Flagan, R. C.
  2001; 78 (20): 3133-3135
- **Colloidal assemblies modified by ion irradiation** *E-MRS Spring Meeting on Materials Science with Ion Beams*
  Snoeks, E., van Blaaderen, A., van Dillen, T., van Kats, C. M., Velikov, K., Brongersma, M. L., Polman, A.
  ELSEVIER SCIENCE BV.2001: 62–68
- **Electromagnetic energy transport along arrays of closely spaced metal rods as an analogue to plasmonic devices** *APPLIED PHYSICS LETTERS*
  Maier, S. A., Brongersma, M. L., Atwater, H. A.
  2001; 78 (1): 16-18
- **Electromagnetic energy transport below the diffraction limit in periodic metal nanostructures** *Conference on Controlling and Using Light in Nanometric Domains*

Maier, S. A., Kik, P. G., Brongersma, M. L., Atwater, H. A.
SPIE-INT SOC OPTICAL ENGINEERING.2001: 22–30

- **Manipulation and Charging of Single Si Nanocrystals by Atomic Force Microscopy** *Appl. Phys. Lett.*
  Boer, E., A., Taubner, T., Brongersma, Mark, L.
  2001; 78: 3133
- **Electromagnetic energy transfer and switching in nanoparticle chain arrays below the diffraction limit** *PHYSICAL REVIEW B*
  Brongersma, M. L., Hartman, J. W., Atwater, H. A.
  2000; 62 (24): 16356-16359
- **Colloidal ellipsoids with continuously variable shape** *ADVANCED MATERIALS*
  Snoeks, E., van Blaaderen, A., van Dillen, T., van Kats, C. M., Brongersma, M. L., Polman, A.
  2000; 12 (20): 1511-1514
- **Origin of MeV ion irradiation-induced stress changes in SiO2** *JOURNAL OF APPLIED PHYSICS*
  Brongersma, M. L., Snoeks, E., van Dillen, T., Polman, A.
  2000; 88 (1): 59-64
- **Formation mechanism of silver nanocrystals made by ion irradiation of Na+<-> Ag+ ion-exchanged sodalime silicate glass** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS*
  Peters, D. P., Strohhofer, C., Brongersma, M. L., van der Elsken, J., Polman, A.
  2000; 168 (2): 237-244
- **Strong exciton-erbium coupling in Si nanocrystal-doped SiO2** *APPLIED PHYSICS LETTERS*
  Kik, P. G., Brongersma, M. L., Polman, A.
  2000; 76 (17): 2325-2327
- **Size-dependent electron-hole exchange interaction in Si nanocrystals** *APPLIED PHYSICS LETTERS*
  Brongersma, M. L., Kik, P. G., Polman, A., Min, K. S., Atwater, H. A.
  2000; 76 (3): 351-353
- **Monodisperse Silica and ZnS Particles with Continuously Variable Shape Made by Ion Irradiation of Micro-Spheres** *Advanced Materials*
  Snoeks, E., Cao, L., Arbiol, J., Brongersma, Mark, L., Morral, A. F.
  2000; 12: 1511
- **Colloidal Assemblies Modified by Ion Irradiation** *Nucl. Instr. and Meth.*
  Snoeks, E., White, Justin, S., Cai, W., Brongersma, Mark, L.
  2000; 178: 62
- **Depth distribution of luminescent Si nanocrystals in Si implanted SiO2 films on Si** *JOURNAL OF APPLIED PHYSICS*
  Brongersma, M. L., Polman, A., Min, K. S., Atwater, H. A.
  1999; 86 (2): 759-763
- **Activation energy spectra for annealing of ion irradiation induced defects in silica glasses** *11th International Conference on Ion Beam Modification of Materials (IBMM98)*
  van Dillen, T., Brongersma, M. L., Snoeks, E., Polman, A.
  ELSEVIER SCIENCE BV.1999: 221–26
- **Nucl. Intrum. Methods Phys.**
  edited by Vredenberg, A., Polman, A., Stolk, P.
  1999
- **Activation Energy Spectra for Annealing of Ion Irradiation-induced Defects in Silica Glasses** *Nucl. Instr. and Meth.*
  van Dillen, T., Kang, J., Park, J., Liu, X., Brongersma, Mark, L.
  1999; B 148: 221
- **Tuning the emission wavelength of Si nanocrystals in SiO2 by oxidation** *APPLIED PHYSICS LETTERS*
  Brongersma, M. L., Polman, A., Min, K. S., Boer, E., Tambo, T., Atwater, H. A.
  1998; 72 (20): 2577-2579

- **Tailoring the Optical Properties of Si Nanocrystals; Materials Issues and Nanocrystal Laser Perspectives**
  Brongersma, M., L., Min, K., S., Boer, E., Tambo, T., Polman, A., Atwater, H., A.
  1998
- **Low energy k-dependent electronic structure of the layered magnetoresistive oxide La1.2Sr1.8Mn2O7** *Symposium on Metallic Magnetic Oxides at the Materials-Research-Society Fall Meeting*
  Saitoh, T., Dessau, D. S., Park, C. H., Shen, Z. X., Villella, P., Hamada, N., Moritomo, Y., Tokura, Y.
  MATERIALS RESEARCH SOCIETY.1998: 213–218
- **Co-organizer of the Eleventh International Conference on Ion Beam Modification of Materials**
  Brongersma, M., L.
  1998
- **Temperature dependence of MeV heavy ion irradiation-induced viscous flow in SiO2** *APPLIED PHYSICS LETTERS*
  Brongersma, M. L., Snoeks, E., Polman, A.
  1997; 71 (12): 1628-1630
- **Defect-related versus excitonic visible light emission from ion beam synthesized Si nanocrystals in SiO2** *APPLIED PHYSICS LETTERS*
  Min, K. S., SHCHEGLOV, K. V., Yang, C. M., Atwater, H. A., Brongersma, M. L., Polman, A.
  1996; 69 (14): 2033-2035
- **The role of quantum-confined excitons vs defects in the visible luminescence of SiO2 films containing Ge nanocrystals** *APPLIED PHYSICS LETTERS*
  Min, K. S., SHCHEGLOV, K. V., Yang, C. M., Atwater, H. A., Brongersma, M. L., Polman, A.
  1996; 68 (18): 2511-2513
- **On the Origin of Visible Luminescence from SiO2 Films containing Ge Nanocrystals**
  Min, K., S., Shcheglov, K., V., Yang, C., M., Camata, R., P., Atwater, H., A., Brongersma, M., L.
  1996
- **Ion beam synthesis of planar opto-electronic devices (reprinted from Nuclear Instruments and Methods in Physics Research, vol 106, pg 393-399, 1995)** *9th International Conference on Ion Beam Modification of Materials (IBMM 95)*
  Polman, A., Snoeks, E., VANDENHOVEN, G. N., Brongersma, M. L., Serna, R., Shin, J. H., Kik, P., Radius, E.
  ELSEVIER SCIENCE BV.1996: 393–399
- **On the origin of visible luminescence from SiO2 films containing Ge nanocrystals** *Symposium on Surface/Interface and Stress Effects in Electronic Material Nanostructures, at the 1995 MRS Fall Meeting*
  Min, K. S., SHCHEGLOV, K. V., Yang, C. M., Camata, R. P., Atwater, H. A., Brongersma, M. L., Polman, A.
  MATERIALS RESEARCH SOC.1996: 247–252
- **Ion beam synthesis of planar opto-electronic devices** *9th International Conference on Ion Beam Modification of Materials (IBMM 95)*
  Polman, A., Snoeks, E., VANDENHOVEN, G. N., Brongersma, M. L., Serna, R., Shin, J. H., Kik, P., Radius, E.
  ELSEVIER SCIENCE BV.1995: 393–99
- **CORRELATION OF SIZE AND PHOTOLUMINESCENCE FOR GE NANOCRYSTALS IN SIO2 MATRICES** *Symposium F: Microcrystalline and Nanocrystalline Semiconductors, at the 1994 Fall Meeting of the Materials-Research-Society*
  Yang, C. M., SHCHEGLOV, K. V., Brongersma, M. L., Polman, A., Atwater, H. A.
  MATERIALS RESEARCH SOCIETY.1995: 181–186
- **Ion Beam Synthesis of Planar Optoelectronic Devices**
  Polman, A., Snoeks, E., van den Hoven, G., N., Brongersma, M., L., Serna, R., Shin, J., H.
  1995
- **Ion Beam Synthesis of Planar Optoelectronic Devices** *Nucl. Instrum. and Meth.*
  Polman, A., Hryciw, Aaron, C., Barnard, Edward, S., Brongersma, Mark, L.
  1995; B 106: 393
- **ION-BEAM SYNTHESIS OF LUMINESCENT SI AND GE NANOCRYSTALS IN A SILICON DIOXIDE MATRIX** *Symposium on Materials Synthesis and Processing Using Ion Beams, at the 1993 MRS Fall Meeting*
  Atwater, H. A., SHCHEGLOV, K. V., Wong, S. S., Vahala, K. J., Flagan, R. C., Brongersma, M. L., Polman, A.

MATERIALS RESEARCH SOC.1994: 409–420

- **ION-BEAM SYNTHESIS OF LUMINESCENT SI AND GE NANOCRYSTALS IN A SILICON DIOXIDE MATRIX** *Symposium on Crystallization and Related Phenomena in Amorphous Materials, at the 1993 Fall Meeting of the Materials-Research-Society*
  Atwater, H. A., SHCHEGLOV, K. V., Wong, S. S., Vahala, K. J., Flagan, R. C., Brongersma, M. L., Polman, A.
  MATERIALS RESEARCH SOC.1994: 363–374
- **Ion Beam Synthesis of Luminescent Si and Ge Nanocrystals in a Silicon Dioxide Matrix**
  Atwater, H., A., Shcheglov, K., V., Wong, S., S., Vahala, K., J., Flagan, R., C., Brongersma, M., L.
  1994
- **CMOS Compatible High-speed Electro-optical Modulator**
  Kekatpure, D., Brongersma, M., L.