## LIST OF SOME MAJOR PUBLICATIONS OF YOSHIAKI DAIMON HAGIWARA



- [1] Amr M. Mohsen, T.C.McGill, Yoshiaki Daimon Hagiwara, and Carver A. Mead, "The Influence of Interface States on Incomplete Charge Transfer in Overlapping Gate Charge Coupled Devices", IEEE Journal of Solid State Circuits, Vol. SC 8, No.2, April 1973.
- [2] Yoshiaki Daimon Hagiwara, Amr M. Mohsen and Thomas C. McGill, "Charge Transfer of Buried Channel Charge Coupled Devices", Proceeding of International Solid State Circuit Conference (ISSCC1974), Philadelphia USA, on February 1974.
- [3] Yoshiaki Daimon Hagiwara, Amr Mohsen, and T. C. McGill, "Final Stage of the Charge Transfer Process in Charge Coupled Devices", IEEE Transactions on Electron Devices, Vol. ED-21, No.4, April 1974.
- [4] Y. Hagiwara, JPA1975-127646, filed on Oct 23, 1975, on the surface-pinned N+NPNP triple junction type dynamic photodiode with MOS capacitor buffer memory for high frquency global shutter.
- [5] Y. Hagiwara, JPA1975-127647, filed on Oct 23, 1975, on the surface-pinned N+NPN double junction dynamic photodiode with MOS capacitor buffer memory for high frequency global shutter.
- [6] Y. Hagiwara, JPA1975-134985, filed on Nov 10, 1975, on the surface-pinned PNP doble-junction bipolar-ransistor type dynamic photodiode with vertical overflow drain (VOD) capability with completely-majority-carrier-depleted buried-channel base region.
- [7] C.A. Mead, Y. Hagiwara, et al, "128-Bit Multi Comparator", IEEE Journal. of Solid State Circuits, VOL.SC11, No.4, Oct.1976. Caltech/Intel Project 1972-1973.
- [8] Y.Hagiwara, T.Hahashimoto and S.Ochi, JPA1977-126885, filed on Sept 29, 1977, on in-pixel overflow drain (OFD) with drain punch-thru action of complete-charge-draining and high-frequency global-and-electronic shutter function capability.
- [9] Y Daimon-Hagiwara, "Two Phase CCD with Narrow-Channel Transfer Regions", SSDM1977, Sept 1978; Proc. 9th Conf. Solid State Devices, Japanese Journal of Applied Physics, Vol. 17 Sup. 17-1, 1978, pp. 255-261.
- [10] Y. Daimon-Hagiwara, M. Abe and C. Okada, "A 380H × 488V CCD Imager with Narrow Channel Transfer Gates", SSDM1978, Sept 1978; Proc. 10th Conf. Solid State Devices, J. J. of Applied Physics, Vol. 18 Sup. 18-1, 1979, pp. 335-340.
- [11] Y.D-Hagiwara, an invited talk, "Advances in CCD imagers", the 5th Int. Conf. on CCD, Univ. of Edinburgh, Scotland, UK, Sept 1979; https://www.imagesensors.org/Past%20Workshops/1979%20CCD79/03-1%20Hagiwara.pdf; https://imagesensors.org/1979-papers/;
- [12] Y. Kanoh, T. Ando, H. Matsumoto, Y. Hagiwara and T. Hashimoto, "Interline Transfer CCD Image Sensor", Technical Journal of Television Society, ED 481, pp. 47-52, Jan 24, 1980.
- [13] Yoshiaki Daimon-Hagiwara, an invited talk "CCD imagers", IEEE Electrochamical Society ECS 1980 Meeeting, St. Louis, MO USA.
- [14] Fumio Miyaji, Yasushi Matsuyama, Yoshikazu Kanaishi, Katsunori Senoh, Takashi Emori and Yoshiaki Hagiwara, "A 25 nanosec 4 Mega bit CMOSRAM with Dynamic Bot-Line Loads", ISSCC1989 and J.Solid State Circuits, Vol24, No.5, October 1989.
- [15] Yoshiaki Hagiwara, "High-Denisity and High-Quality Frame Transfer CCD Image with Very Low Smear, Low Dark Current, and Very High Blue Sensitivity", IEEE Transaction on electron Devices, VOI.43, No.12, Dec 1996.
- [16] Yoshiaki Hagiwara, an invited ESSCIRC2001 Plenary Talk, "Micro-Electronics for Home Entertainment", Technical Digest of IEEE ESSCIRC2001 International Conference (ESSCIRC2001), Villach, Austria, September, 2001.
- [17] Yoshiaki Hagiwara, "Imaging Devices", IEEE IEDM2004 Conference Tutorial Short Course, Dec 2004...
- [18] Yoshiaki Daimon Hagihara, "SOI Design in Cell Processor and Beyond", an invited ESSCIRC2008 Plenary Talk, Technical Digest of IEEE ESSCIRC2008 Conference, Edinburgh, Scotland UK, September 2008.
- [19] Yoshiaki Hagiwara, "The p-n-p-n Diode in Future Linear Motor Cars and in Modern Imagers" an invited talk on ISSCC2013 Plenary Panel talk, Feb 2008 and IEEE Journal of Solid State Circuits, June issue, 2013.
- [20] Yoshiaki Hagiwara, JPA2014-135497, "Digital Transformation Matrix for Fast Image Recognition System", filed on July 1, 2014.
- [21] Yoshiaki Hagiwara, "The World of Digital Circuits for Artificial Intelligent Partner System (AIPS)", ISBN 978-4-88359-339-2, 450 pages, Hard Cover, Seizansha, 2016..
- [22] Y. Hagiwara, "Multichip CMOS Image Sensor Structure for Flash Image Acquisition", IEEE Int. 3D Systems Integration Conf. (3DIC 2019), Sendai Japan, 2019.
  - https://ieeexplore.ieee.org/document/9058907
- [23] Y. Hagiwara, "Simulation and Device Characterization of the P+PN+P Junction Type Pinned Photodiode and Schottky Barrier Photodiode", 4th IEEE EDS Technology & Manufacturing Conf. (EDTM2020), Penang Malaysia, March 16-18, 2020, https://ieeexplore.ieee.org/document/9117803
- [24] Yoshiaki Hagiwar, JPA2020-131313 filed on Aug 1, 2020, on the pinned-surface P+PnPP+ double junction type solar cell structure.
- [25] Yoshiaki Hagiwara, "Electrostatic and Dynamic Analysis of P+PNP Double Junction Type and P+PNPN Triple Junction Type Pinned Photodiodes", International Journal of Systems Science and Applied Mathematics, Volume 6, Issue 2, June 2021, <a href="https://www.sciencepublishinggroup.com/article/10.11648/j.ijssam.20210602.13">https://www.sciencepublishinggroup.com/article/10.11648/j.ijssam.20210602.13</a>
- [26] Y. Hagiwara, "Pinned Buried PIN Photodiode Type Solar Cell", Proc. Int. Conf. on Elec., Com. and Energy Tech (ICECET), Cape Town, South Africa, 9-10 Dec. 2021.
  - https://ieeexplore.ieee.org/document/9698676
- [27] Y. Hagiwara, "Invention and Historical Development Efforts of Pinned Photodiode", Proc. Int. Conf. on Elec., Com. and Energy Tech (ICECET), Cape Town, South Africa, 9-10 Dec. 2021.
  <a href="https://ieeexplore.ieee.org/document/9698439">https://ieeexplore.ieee.org/document/9698439</a>
- [28] Yoshiaki Daimon Hagiwara, "Chronology of silicon-based image sensor development", IEEE EDS Newsletter pp.18-21. Jan 2023, <a href="https://eds.ieee.org/images/files/newsletters/Newsletter\_Jan23.pdf">https://eds.ieee.org/images/files/newsletters/Newsletter\_Jan23.pdf</a>
- [29] Yoshiaki Daimon Hagiwara, and Kikuyo Ishikawa, an invited talk, "Artificial Intelligent Partner System (AIPS) with Pinned Buried Photodiode used for Robot Vision and Solar Cell Panel", the 13<sup>th</sup> nternational Conference on Communications, Circuits and Systems, presented at ICCCAS2023, Singapore, May, 2023 and also at the IEEE International Conference on Artificial Intelligence and Power Engineering (AIPE2023), Tokyo Japan, Oct 2023. <a href="https://iceexplore.ieee.org/document/10473244">https://iceexplore.ieee.org/document/10473244</a>
- [30] Yoshiaki Daimon Hagiwara, an invited talk, "Review of Historical Development Efforts of Solid State Images and Solar Cell", the 13th IEEE International Conference on Communications, Circuits and Systems, ICCCAS2024, May 10-12, 2024.
  - 2024 05 10 ICCCAS2024 Slides and Presentation mp4 Video Files by Yoshiaki Daimon Hagiwara.pdf
- [31] https://electronics.stackexchange.com/questions/83018/difference-between-buried-photodiode-and-pinned-photodiode
- [32] https://www.sony.com/en/SonyInfo/News/notice/20200626/
- [33] https://www.shmj.or.jp/english/pdf/dis/exhibi1005E.pdf