

# Publication list of Laszlo B. Kish

(Until 1999, his family name was Kiss)

January 2012.

**328 items listed**

*(Conference posters with only-abstract are omitted)*

**Science Citation Index citations** : >2200 **h-index: 25**

(Source: relevant ones from the following SCI searches: Kish LB OR Kiss LB ; Kish L ; Kiss L )

**Google scholar citations:** >2900, **Google scholar h-index: 26**

(Source: <http://scholar.google.com.au/citations?user=fVJ8twEAAAAJ&hl=en> )

**A: Patents and patent disclosures** (20 items: 7 patents and 13 disclosures)

**B: Editor of special journal issues and books/proceedings** (13 items)

**C: Peer reviewed journal articles** (166 articles)

(C<sup>+</sup>: Invited review papers in peer reviewed journals: 6 articles)

(C: Regular papers in peer reviewed journals: 160 articles)

**D: Invited and plenary talks at international conferences** (58 articles)

**E: Book chapters and regular talks at international conferences** (71 articles)

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## A. Patents and patent disclosures (20 items)

(5 US patents, 3 Swedish patents and 12 disclosures of other inventions)

- A-20. **L.B. Kish**, G. Schmera, "Bacteria Identification by Phage Induced Impedance Fluctuation Analysis, BIPIF", patent pending, Navy Case 100811, Serial Number 13/075,250 filed on March 30, 2011, see: <http://arxiv.org/abs/1004.0147v1>
- A-19. H.C. Chang, **L.B. Kish**, "Vertical-compression and vertical-vibration methods for vibration-induced conductance fluctuation study of soils (VC-VICOF and VV-VICOF)". March 19, 2008.
- A-18. Ch. Kwan, **L.B. Kish**, G. Schmera, " High Performance Chemical Agent Classification Framework", Signal processing cp. - TAMU - SPAWAR patent disclosure, May 1, 2007.
- A-17. **L.B. Kish**, "Methods of Using Existing Wire Lines (powerlines, phonelines, internet lines, etc.) for Totally Secure Classical Communication Utilizing Kirchoff's Law and Johnson-like Noise (KLJN), TAMU patent disclosure", October 2, 2006.
- A-16. **L.B. Kish**, C.L.S. Morgan, A. Kishne, "Vibration-induced conductance fluctuation (VICOF) testing of soils", TAMU patent disclosure, October, 2005.
- A-15. **L.B. Kish**, "Totally Secure Classical Communication Utilizing Johnson (-like) Noise and Kirchoff's Law", TAMU patent disclosure, September 15, 2005.
- A-14. **L.B. Kish**, Stealth Communication. Zero-Signal-Power Communication: Zero-Power Classical Communication, Zero-Quantum Quantum Communication and Environmental-Noise Communication, TAMU patent disclosure, August 18, 2005.
- A-13. J. Bergou and **L.B. Kish**, A New Quantum Communicator with Enhanced Security, no Detection Noise, no Entanglement and no Classical Channel, CUNY-TAMU patent disclosure, July 5, 2005.
- A-12. J.R. Biard and **L.B. Kish**, Enhancing the sensitivity of the SEPTIC bacterium detection method by concentrating the phage-infected bacteria via dc electrical current, TAMU patent disclosure, May 18, 2005.
- A-11. **L.B. Kish**, M. Cheng, R. Young, M. King, S. Bezrukov, "Sensing Phage-Triggered Ion Cascade

- (SEPTIC)", U.S. Patent, serial #: 60/630,975, November 24, 2004.
- A-10. **L.B. Kish**, P.M. Ajayan, Magnetic Flash Memory with Carbon Nanotubes, TAMU-RPI patent disclosure, September 2004.
  - A-9. G. Schmera, **L.B. Kish**, J. Smulko, "System and Method for Gas Recognition by Analysis of Bispectrum Function", US Patent, Navy Case #96130 (March 2004).
  - A-8. G. Schmera, **L.B. Kish**, ""System and Method of Molecule Counting Using Fluctuation Enhanced Sensors"", US Patent, Navy Case #95831 (March 2004). US Patent # 7524460 (April 28, 2009).
  - A-7. **L.B. Kish**, S. Sethuraman, Non-Breakable Data Encryption with Classical Information, TAMU patent disclosure, May 2004.
  - A-6. S. Bezrukov, M. Cheng, M.D. King, **L.B. Kish**, R.Y. Young, "MOSFET-Based Biochip for Detection of Phage Infection of Bacteria, NIH and TEES-TAMU patent disclosure, December 2003.
  - A-5. G. Schmera and **L.B. Kish**, "Fluctuation Enhanced Chemical Sensing by Surface Acoustic Wave Devices", US Patent, Navy Case #8412, (June 2003)
  - A-4. **L.B. Kish**, "Quantum Computing by Analog Electronic Circuits", **TEES patent disclosure**, TEES 1921, (July 2002)
  - A-3. **L.B. Kish**, C.G. Granqvist and R. Vajtai, "Sampling-and-Hold Chemical Sensing by Noise Measurements for Electronic Nose Applications", **Swedish patent** Ser. No.: 990409-5
  - A-2. **L.B. Kish**, C.G. Granqvist, J. Söderlund, "Particle size determination", **Swedish patent**, Ser. No.: 9803320-2; Publ. No.: 513194
  - A-1. **L.B. Kish**, C.G. Granqvist, J. Söderlund, "Detection of chemicals based on resistance fluctuation-spectroscopy", **Swedish patent**, Ser. No.: 9803019-0; Publ. No.: 513148

## **B. Editor of books, special journal issues and proceedings (13 items)**

- B-13. S.M. Bezrukov, **L.B. Kish**, L.K.J. Vandamme, "Special issue on 1/f noise", **Fluctuation and Noise Letters** 10 (2011) December.
- B-12. C.G. Granqvist, **L.B. Kish** (eds.), "Sensing of Organic Pollution in Soil, Air, Water and Food", **Sensors** (special issue ISSN 1424-8220) 2011; [http://www.mdpi.com/journal/sensors/special\\_issues/sopsawf/](http://www.mdpi.com/journal/sensors/special_issues/sopsawf/) .
- B-11. **L.B. Kish**, G. Schmera (eds.), "Metal-oxide Based Nanosensors", **Sensors** (special issue, ISSN 1424-8220, open access journal), February 28, 2010; [http://www.mdpi.com/journal/sensors/special\\_issues/metal\\_oxide\\_based\\_nanosensors/](http://www.mdpi.com/journal/sensors/special_issues/metal_oxide_based_nanosensors/)
- B-10. **L.B. Kish**, K. Lindenbergl and Z. Gingl (eds.), "Noise in Complex Systems and Stochastic Dynamics", Proceedings of SPIE International Conference on Noise in Complex Systems and Stochastic Dynamics, Austin, Texas, May 2005, **SPIE - The International Society of Optical Engineers**, SPIE Proceedings Series.
- B-9. C.G. Granqvist, **L.B. Kish**, W.H Marlow, (eds.), "Gas Phase Nanoparticle Synthesis", Kluwers Academic (2004)
- B-8. J. Smulko, Y. Blanter, M. Dykman and **L.B. Kish** (eds.), "Noise and Information in Nanoelectronics, Sensors and Standards", Proceedings of SPIE International Conference on Noise and Information in Nanoelectronics, Sensors and Standards, Canary Islands, May 2004, **SPIE - The International Society of Optical Engineers**, SPIE Proceedings Series vol. 5472.
- B-7. **L.B. Kish**, F. Green, G. Iannaccone, J.R. Vig (eds.), "Noise and Information in nanoelectronics, sensors and Standards", Proceedings of SPIE International Conference on Noise and Information in nanoelectronics, sensors and Standards, Santa Fe, June 2003, **SPIE - The International Society of Optical Engineers**, SPIE Proceedings Series vol. 5115.
- B-6. V. Varadan and **L.B. Kish** (eds.), "Smart Electronics, MEMS, BioMEMS, and Nanotechnology", Proceedings of SPIE International Conference on Smart Electronics, MEMS, BioMEMS, and Nanotechnology, San Diego, March 2003, **SPIE - The International Society of Optical Engineers**, SPIE Proceedings Series vol. 5055.
- B-5. **L.B. Kish** (ed.), "Special Issue on BIOMEMS and Smart Nanostructures", Smart Materials and Structures,

Volume 11, Number 5, October 2002, **Institute of Physics Publishing**, Oxford.

- B-4.** **L.B. Kish** (ed.), "BioMEMs and Smart Nanostructures", Proceedings of the SPIE International Conference on BioMEMs and Smart Nanostructures, Adelaide, Australia, 17-19 December 2001, **SPIE - The International Society of Optical Engineers**, SPIE Proceedings Series 4590.
- B-3.** D. Abbott, **L.B. Kish** (eds.), "Unsolved Problems of Noise and Fluctuations", Proceeding of the 2nd international conference on Unsolved Problems of Noise (UPoN'99), Adelaide, Australia, 1999, **American Institute of Physics**, Melville, NY (2000).
- B-2.** Ch. Doering, **L.B. Kiss**, M. Shlesinger (eds.), "Unsolved Problems of Noise", Proceeding of the 1st international conference on Unsolved Problems of Noise (UPoN'96), Szeged, Hungary, 1996, **World Scientific**, Singapore (1997).
- B-1.** A. Bulsara, S. Chillemi, **L.B. Kiss**, P.V.E. McClintock, R. Mannella, F. Marchesoni, K. Nicolis, K. Wiesenfeld (eds.), "Fluctuations in Physics and Biology: Stochastic Resonance, Signal Processing and Related Phenomena" Proceeding of the international workshop held at Elba Island, Italy, June 1994, **Nuovo Cimento D 17** (1995).

## **C. Peer reviewed journal articles (166 articles)**

### **C<sup>+</sup>. Invited review papers in peer reviewed journals (6 articles)**

- C<sup>+</sup>-6.** **L.B. Kish**, F. Peper, Information Networks Secured by the Laws of Physics, Invited paper, **IEICE Transactions on Communications**, in Special Issue: Frontiers of Information Network Science, accepted for publication (December 2011).
- C<sup>+</sup>-5.** **L.B. Kish**, S.P. Khatri, S.M. Bezrukov, F. Peper, Z. Gingl, T. Horvath, "Noise-based deterministic logic and computing: a brief survey", **International Journal of Unconventional Computing** 7 (2011 February) 101-113 .
- C<sup>+</sup>-4.** **L.B. Kish**, "Absolutely Secure Communications by Johnson-like Noise and Kirchhoff's Laws", **Journal of the Society of Instrument and Control Engineers (SICE, Japan)** 49 (2010) 212-216.
- C<sup>+</sup>-3.** **L.B. Kiss**, P. Svedlindh, "Noise in high Tc superconductors", **IEEE Trans. on Electron Devices** 41 (1994) 2112
- C<sup>+</sup>-2.** **L.B. Kiss** and P. Svedlindh, M. Bjornander, P. Nordblad, F. Masszi and J. Magnusson, "Noise in high Tc superconductors", **Journal on Communications** 46 (1995) 20.
- C<sup>+</sup>-1.** **L.B. Kiss**, "On fluctuations with a 1/f spectrum and the non-existence of the quantum 1/f noise effect", **Reviews of Solid State Science** 2 (1988) 659.

### **C. Regular papers in peer reviewed journals (160 articles)**

- C-160.** **L.B. Kish**, C.G. Granqvist, "Energy requirement of control"; submitted for publication (10/2011);<http://arxiv.org/abs/1110.0197>
- C-159.** L.L. Kish, J. Kameoka, C.G. Granqvist, **L.B. Kish**, "Log-Normal Distribution of Single Molecule Fluorescence Bursts in Micro/Nano-Fluidic Channels", **Applied Physics Letters** 99 (2011, October), Article Number: 143121 ; <http://arxiv.org/abs/1107.4360>
- C-158.** **L.B. Kish**, Hung C. Chang, Maria D. King, Chiman Kwan, James O. Jensen, Gabor Schmera, Janusz Smulko, Zoltan Gingl, and Claes G. Granqvist, "Fluctuation-Enhanced Sensing for Biological Agent Detection and Identification", **IEEE Nanotechnology** 10 (2011) 1238-42, <http://arxiv.org/abs/0912.5211> .
- C-157.** P. Makra, Z. Topalian, C.G. Granqvist, **L.B. Kish**, C. Kwan, "Accuracy versus speed in fluctuation-enhanced sensing", **Fluctuation and Noise Letters**, accepted for publication (September 2011); <http://arxiv.org/abs/1108.1957>

- C-156. T. Horvath, **L.B. Kish**, J. Scheuer, "Effective Privacy Amplification for Secure Classical Communications", **EPL** (formerly Europhysics Letters) **94** (2011 April) 28002-p1 - 28002-p6 ; <http://arxiv.org/abs/1101.4264>
- C-155. **L.B. Kish**, "Thermal noise engines", **Chaos, Solitons and Fractals** **44** (2011 February) 114–121 ; <http://arxiv.org/abs/1009.5942> .
- C-154. F. Peper, **L.B. Kish**, "Instantaneous, non-squeezed, noise-based logic", **Fluctuation and Noise Letters** **10** (June 2011) 231-237. *Open access*: <http://www.worldscinet.com/fnl/10/1002/open-access/S0219477511000521.pdf>
- C-153. **L.B. Kish**, S. Khatri, T. Horvath, "Computation using Noise-based Logic: Efficient String Verification over a Slow Communication Channel", **European Journal of Physics B** **79** (2011 January) 85-90, <http://arxiv.org/abs/1005.1560>
- C-152. **L.B. Kish**, S. Khatri, F. Peper, "Instantaneous noise-based logic", **Fluctuation and Noise Letters** **9** (2010 December) 323-330.
- C-151. Z. Gingl, S. Khatri, **L.B. Kish**, "Towards brain-inspired computing", **Fluctuation and Noise Letters** **9** (2010 December) 403-412.
- C-150. D.K. Ferry, **L.B. Kish**, "Noise and Bell's inequality", **Fluctuation and Noise Letters** **9** (2010 December) 423-426.
- C-149. Z. Gingl, **L.B. Kish**, B. Ayhan, C. Kwan, C.-G. Granqvist, "Fluctuation-Enhanced Sensing With Zero-Crossing Analysis for High-Speed and Low-Power Applications", **IEEE Sensor Journal** **10** (2010 March) 492-497.
- C-148. G. Schmera, Z. Gingl, **L.B. Kish**, B. Ayhan, C. Kwan, C.G. Granqvist, "Separating Chemical Signals of Adsorption-Desorption and Diffusive Processes", **IEEE Sensors Journal** **10** (2010 March) 461-464.
- C-147. **L.B. Kish**, J. Scheuer, "Noise in the wire: the real impact of wire resistance for the Johnson (-like) noise based secure communicator", **Physics Letters A** **374** (April 2010) 2140-214.
- C-146. H.C. Chang, **L.B. Kish**, M.D. King, C. Kwan, "Binary Fingerprints at Fluctuation-Enhanced Sensing", **Sensors** **10** (2010) 361-373; *Open Access*, <http://www.mdpi.com/1424-8220/10/1/361>
- C-145. L.L. Kish, M. Zhang, **L.B. Kish**, "Cracking the Liu key exchange protocol in its most secure state with Lorentzian spectra", **Fluctuation and Noise Letters** **9** (2010) 37–45.
- C-144. M. Aroutiounian, Z. Mkhitarian, A. Adamian, C.-G. Granqvist, **L.B. Kish**, "Fluctuation-enhanced gas sensing", **Procedia Chemistry** **1** (September, 2009) 216–219.
- C-143. S.M. Bezrukov, **L.B. Kish**, "Deterministic multivalued logic scheme for information processing and routing in the brain", **Physics Letters A** **373** (2009) 2338-234.
- C-142. **L.B. Kish**, S. Khatri, S. Sethuraman, "Noise-based logic hyperspace with the superposition of  $2^N$  states in a single wire", **Physics Letters A** **373** (March 2009) 1928–1934.
- C-141. **L.B. Kish**, T. Horvath, "Notes on Recent Approaches Concerning the Kirchhoff-Law-Johnson-Noise-based Secure Key Exchange", **Physics Letters A** **373** (2009) 901–904.
- C-140. H.C. Chang, **L.B. Kish**, M.D. King, C. Kwan, "Fluctuation-Enhanced Sensing of Bacterium Odors", **Sensors and Actuators B** **142** pp. 429-434 (web-published April 15, 2009).
- C-139. **L.B. Kish**, "Noise-based logic: Binary, multi-valued, or fuzzy, with optional superposition of logic states", **Physics Letters A** **373** (2009) 911-918.
- C-138. G. Frenning, G. Alderborn, **L.B. Kish**, D. Mahlin, "Spectral analysis of force fluctuations during probe penetration into cohesive powders", **Powder Technology** **187** (October 8, 2008) 62-67.
- C-137. Ch. Kwan, G. Schmera, J. Smulko, **L.B. Kish**, P. Heszler, C.G. Granqvist, "Advanced agent identification at fluctuation-enhanced sensing", **IEEE Sensors Journal** **8** (June 2008) 706-13.
- C-136. G. Schmera, Ch. Kwan, P. Ajayan, R. Vajtai, **L.B. Kish**, "Fluctuation-enhanced sensing: status and perspectives", **IEEE Sensors Journal** **8** (June 2008) 714-19.
- C-135. V.M. Aroutiounian, Z.H. Mkhitarian, A.A. Shatveryan, F.V. Gasparyan, M. Ghulinyan, L. Pavesi, **L.B. Kish** and C.G. Granqvist, "Noise spectroscopy of gas sensors", **IEEE Sensors Journal** **8** (June 2008) 786-90.

- C-134. S. Seo, M. Dobozi-King, R.F. Young, **L.B. Kish**, M. Cheng, Patterning a nanowell sensor biochip for specific and rapid detection of bacteria, **Microelectronic Engineering** **85** (2008) 1484-9.
- C-133. **L.B. Kish**, O. Saidi, "Unconditionally secure computers, algorithms and hardware, such as memories, Fluctuation and Noise Letters **8** (June 2008) L95-L98.
- C-132. H.C. Chang, **L.B. Kish**, A.S. Kishne, C.L.S. Morgan, C. Kwan, "Theory and techniques for Vibration-Induced Conductivity Fluctuation testing of soils", **Fluct. Noise Lett.** **8** (June 2008) L125-L140.
- C-131. D. Abbott, C.R. Doering, C.M. Caves, D.M. Lidar, H.E. Brandt, A.R. Hamilton, D.K. Ferry, J. Gea-Banacloche, S.M. Bezrukov, **L.B. Kish**, "Dreams versus reality: Plenary debate session on quantum computing", **Fluct. Noise Lett.** **8** (June 2008) C27-C51.
- C-130. J. Smulko, A. Azens, R. Marsal, **L.B. Kish**, S. Green, C.-G. Granqvist, "Application of 1/f Current Noise for Quality and Age Monitoring of Electrochromic Devices", **Solar Energy Materials and Solar Cells** **92** (Aug. 2008) 914-18.
- C-129. C.-G. Granqvist, S. Green, E. Jonson, R. Marsal, G.A. Niklasson, A. Roos, Z. Topalian, A. Azens, P. Georen, G. Gustavsson, J. Smulko, **L.B. Kish**, "Electrochromic Foil-Based Devices: Optical Transmittance and Modulation Range, Effect of Ultraviolet Irradiation, and Quality Assessment by 1/f Current Noise", **Thin Solid Films** **516** (1 July 2008) 5921-6.
- C-128. R. Mingesz, Z. Gingl, **L.B. Kish**, "Johnson(-like)-Noise-Kirchhoff-loop based secure classical communicator characteristics, for ranges of two to two thousand kilometers, via model-line", **Physics Letters A**, **372** (2008) 978-984.
- C-127. **L.B. Kish**, G. Schmera, M.D. King, M. Cheng, R. Young, C.G. Granqvist, "Fluctuation-Enhanced Chemical/Biological Sensing and Prompt Identification of Bacteria by Sensing of Phage Triggered Ion Cascade (SEPTIC)", **Internat. J. of High Speed Electronics and Systems** **18** (2008) 11-18.
- C-126. J. Smulko, A. Azens, L.B. Kish and C.G. Granqvist, "Low-frequency current noise in electrochromic devices", **Smart Materials and Structures** **17** (2008) 025005 (4pp).
- C-125. P. Heszler, R. Ionescu, E. Llobet, L.F. Reyes, J.M. Smulko, **L.B. Kish** and C.G. Granqvist, "On the selectivity of nanostructured semiconductor gas sensors", **Phys. Stat. Sol. (b)** **244**, No. 11 (2007) 90-94.
- C-124. **L.B. Kish**, "Gravitational mass" of information? ", **Fluct. Noise Lett.** **7** (2007) C51-C68.
- C-123. A. Kishne, C.L.S. Morgan, H.-C. Chang, **L.B. Kish**, "Vibration-induced conductivity fluctuation measurement for soil bulk density analysis", **Fluct. Noise Lett.** **7** (2007) L473-L481.
- C-122. J. Smulko, A. Azens, **L.B. Kish**, C.G. Granqvist, Quality Assessments of Electrochromic Devices: The Possible Use of 1/f Current Noise, **Ionics** **13** (2007) 179-182.
- C-121. **L.B. Kish**, J. Smulko, P. Heszler, C.G. Granqvist, "On the sensitivity, selectivity, sensory information and optimal size of resistive chemical sensors", *Invited Paper*, **Nanotechnology Perceptions** **3** (2007) 43-52.
- C-120. Z.H. Mkhitarlyana, A.A. Shatveryana, V.M. Aroutiouniana, M. Ghulinyanb, L. Pavesib, **L.B. Kish**, and C.G. Granqvist, "Current-voltage and low-frequency noise characteristics of structures with porous silicon layers exposed to different gases", **Physica E** **38** (2007) 160-163.
- C-119. C.G. Granqvist, A. Azens, P. Heszler, **L.B. Kish**, L. Österlund, "Nanomaterials for benign indoor environments...", **Solar Energy Materials & Solar Cells** **91** (2007) 355-365.
- C-118. **L.B. Kish**, Response to Feng Hao's paper "Kish's Key Exchange Scheme is Insecure", **Fluct. Noise Lett.** **6** (2006) C37-C41.
- C-117. **L.B. Kish**, C.L.S. Morgan, A.Sz. Kishne, "Vibration-induced conductance fluctuation (VICO) testing of soils", **Fluct. Noise. Lett.** **6** (2006) L359-L365.
- C-116. **L.B. Kish**, "Response to Scheuer-Yariv: "A classical key-distribution system based on Johnson (like) noise—how secure?"", **Phys. Lett. A** **359** (2006) 741-744.
- C-115. **L.B. Kish**, "Thermal noise driven computing", **Appl. Phys. Lett.** **89** (2006) 144104 (October 2).
- C-114. Y. Li and **L.B. Kish**, "Heat, Speed and Error Limits of Moore's Law at the Nano Scales", **Fluct. Noise Lett.** **6** (2006) L127-L131.
- C-113. **L.B. Kish** and P. Mingesz, "Totally secure classical networks with multipoint telecloning (teleportation) of classical bits through loops with Johnson-like noise", **Fluct. Noise Lett.** **6** (2006) C9-C21.

- C-112. J. Ederth, J.M. Smulko, **L.B. Kish**, P. Heszler and C.G. Granqvist, "Comparison of classical and fluctuation-enhanced gas sensing with PdxWO<sub>3</sub> nanoparticle films", **Sensors and Actuators B** **113** (2006) 310-315.
- C-111. **L.B. Kish**, "Protection against the man-in-the-middle-attack for the Kirchhoff-loop-Johnson(-like)-noise cipher and expansion by voltage-based security", **Fluct. Noise Lett.** **6** (2006) L57-L63.
- C-110. J. Kim and **L.B. Kish**, "Recognizing different types of stochastic processes", **Fluct. Noise Lett.** **6** (2006) L1-L6.
- C-109. **L.B. Kish**, "Totally secure classical communication utilizing Johnson (-like) noise and Kirchoff's law", **Physics Letters** **352** (2006) 178-182; also at <http://arxiv.org/physics/0509136>.
- C-108. J. Gea-Banacloche and **L.B. Kish**, "Future directions in electronic computing and information processing", *Invited Paper*, **Proceedings of the IEEE** **93** (2005) 1858-1863.
- C-107. **L.B. Kish**, "Stealth communication: Zero-power classical communication, zero-quantum quantum communication and environmental-noise communication", **Applied Physics Lett.** **87** (2005), Art. No. 234109.
- C-106. J.R. Biard and **L.B. Kish**, "Enhancing the sensitivity of the SEPTIC bacterium detection method by concentrating the phage-infected bacteria via DC electrical current", **Fluct. Noise Lett.** **5** (2005) L153-L158.
- C-105. **L.B. Kish**, M. Cheng, J.U. Kim, S. Seo, M.D. King, R. Young, A. Der, G. Schmera, "Estimation of Detection Limits of the Phage-Invasion Based Identification of Bacteria", **Fluct. Noise Lett.**, **5** (2005) L105-L108.
- C-104. M. Dobozi-King, S. Seo, J.U. Kim, R. Young, M. Cheng, and **L.B. Kish**, (corresponding author) "Rapid Detection and Identification of Bacteria: Sensing of Phage-Triggered Ion Cascade (SEPTIC)", **Journal of Biological Physics and Chemistry**, **5** (2005) 3-7.
- C-103. L. Torok, **L.B. Kish**, "Integro-Differential Stochastic Resonance", **Fluct. Noise Lett.** **5** (2005) L27-L42.
- C-102. **L.B. Kish**, P.M. Ajayan, "TerraByte Flash Memory with Carbon Nanotubes", **Applied Physics Letters** **86** (2005) 093106-1,2.
- C-101. J.M. Smulko, J. Ederth, Y. Li, **L.B. Kish**, M.K. Kennedy, F.E. Kruis, "Gas-Sensing by Thermoelectric Voltage Fluctuations in SnO<sub>2</sub> Nanoparticle Films", **Sensors and Actuators B** **106/2** (2005) 708-712.
- C-100. **L.B. Kish**, Y. Li, J.L. Solis, W.H. Marlow, R. Vajtai, C.G. Granqvist, V. Lantto, J.M. Smulko, G. Schmera, "Detecting Harmful Gases Using Fluctuation-Enhanced Sensing", **IEEE Sensors Journal** **5** (2005) 671-676.
- C-99. J.L. Solis, G.E. Seeton, Y. Li, **L.B. Kish**, "Fluctuation-Enhanced Multiple-Gas Sensing", **IEEE Sensors Journal** **5** (2005) 1338-1345.
- C-98. **L.B. Kish**, "Response to Klappenecker's Remarks on the Non-Breakable Data Encryption Scheme by Kish and Sethuraman", **Fluctuation and Noise Lett.**, **4** (2004) C27-C29.
- C-97. J. Smulko, J. Ederth, **L.B. Kish**, P. Heszler, C.G. Granqvist, "Higher-Order Spectra in Nanoparticle Gas Sensors", **Fluctuation and Noise Letters** **4** (2004) L597-L603.
- C-96. J.M. Smulko, **L.B. Kish**, "Higher-Order Statistics for Fluctuation-Enhanced Gas-Sensing", **Sensors and Materials** **16** (2004) 291-299.
- C-95. **L.B. Kish**, S. Sethuraman, "Non-Breakable Data Encryption with Classical Information", **Fluct. Noise Lett.** **4** (2004) C1-C5.
- C-94. J. Kim, **L.B. Kish**, "Error rate in Current-Controlled Logic Processors with Dominant Shot Noise", **Fluct. Noise Lett.** **4** (2004) L83-L86.
- C-93. S. Sethuraman, **L.B. Kish**, "Blue Noise Effects in Neural Signals", **Fluct. Noise Lett.** **4** (2004) L179-L182.
- C-92. **L.B. Kish**, "Moore's Law and the Energy Requirement of Computing versus Performance", **IEE Proc. - Circ. Dev. Syst.** **151** (2004) 190-194.

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## D. Invited, keynote and plenary talks at international conferences (58 articles)

- D-58.** L.B. Kish, S.P. Khatri, S.M. Bezrukov, F. Peper, Z. Gingl, T. Horvath "Noise-based Information Processing", Invited Talk, **Proc. 21st International Conference on Noise and Fluctuations (ICNF 2011)**, June 12-16, 2011, Toronto, Canada.  
*Paper presented by L.B. Kish.*
- D-57.** L.B. Kish, "Johnson engines and demons", Invited Talk, **9th International Conference on Nanomolecular Electronics (ICNME 2010)**, December 14-16, 2010, Kobe, Japan.  
*Paper presented by L.B. Kish.*
- D-56.** L.B. Kish, H.C. Chang, M.D. King, C. Kwan, J.O. Jensen, "Fluctuation-enhanced sensing for biological agent detection and identification", Plenary Talk, **Nanoelectronic Devices for Defense and Security**, September 28 - October 2, 2009, Fort Lauderdale, Florida. (published in C-153).  
*Paper presented by L.B. Kish.*
- D-55.** L.B. Kish, S. Khatri, S.M. Bezrukov, Z. Gingl, S. Sethuraman, "Noise-based logic", Invited Talk, **Fourth International Workshop on Natural Computing**, September 23-25, 2009, Himeji, Japan. Published by Springer, Eds. F. Peper et al, IWNC 2009, PICT 2, pp. 13–22, 2010.  
*Paper presented by L.B. Kish.*
- D-54.** L.B. Kish, "Speed, error and heat in classical and non-conventional general-purpose computing initiatives", Invited Talk, presented at: **Quantum Computing: Possibilities and Realities**, CIFAR Nanoelectronics Program - Fall 2008 Meeting, November 13-16, 2008, Halifax, Canada.  
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*Paper presented by F. Peper.*
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*Paper presented by L.B. Kish.*
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*Paper presented by L.B. Kish.*
- D-50.** L.B. Kish, R. Mingesz, Z. Gingl, "Thermal noise informatics: Totally secure communication via a wire; Zero-power communication; and Thermal noise driven computing", Plenary Talk at **SPIE's Fourth International Symposium on Fluctuations and Noise (FaN'07)**, Florence, Italy, May 20-24, 2007. Proc. of the SPIE, (2007) in press.  
*Paper presented by L.B. Kish.*
- D-49.** L.B. Kish, G. Schmera, Ch. Kwan, J. Smulko, P. Heszler, C.G. Granqvist, "Fluctuation-enhanced sensing", Keynote Invited Talk at the **Conference on Noise in Materials, Devices and Circuits at SPIE's Fourth International Symposium on Fluctuations and Noise (FaN'07)**, Florence, Italy, May 20-24, 2007. Proc. of the SPIE, (2007).  
*Paper presented by L.B. Kish.*
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*Paper presented by Maria King.*
- D-44.** **L.B. Kish**, Y. Li, "Heat, Speed and Error Limits of Moore's Law at the Nano Scale", Invited Talk, **Second Conference on Nanoscale Devices and System Integration**, April 4-6, 2005, Houston, TX, USA.  
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*Paper presented by L.B. Kish.*
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*Paper presented by L.B. Kish.*
- D-40.** J. U. Kim, S. Seo, M. D. King, M. Cheng, R. F. Young, S. Bezrukov, A. Der, **L.B. Kish**, "Agent-triggered ion cascade of bacteria detected in electrical field fluctuations", Invited Talk, conference **Noise and Information in Nanoelectronics, Sensors and Standards III, SPIE's Third International Symposium on Fluctuations and Noise (FaN'05)**, Austin, TX, May 24-26, 2005.  
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- D-31. L.B. Kish**, "Noise, information, power dissipation, size and speed in nano-ionic and nano-electronic systems", invited talk, **NATO Advanced Research Workshop on Stochastic systems: from Randomness to Complexity**, Erice (Sicily), July 26-Aug. 01, 2002.  
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- D-29. L.B. Kish**, "Noise aspects of nanotechnology driven electronics", special, 40-minutes talk, at the **National Radio Science Meeting of the URSI**, Boulder, Colorado, 9-12 January 2002  
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