Publications - Dr. Ken Gilleo (partial - article list) January 2006 update

BOOKS

Author, **MEMS/MOEMS Packaging**, McGraw-Hill, NY, published July 2005.

Author, **"Industrial Forensics – Strategic Approach to Problem Solving"**, TBD (manuscript complete), 2005-2006.

Editor/Author, **Area Array Packaging Concepts and Designs**, McGraw-Hill, NY, published November 2003

Editor/Author, **Area Array Packaging Materials**, McGraw-Hill, NY, published November 2003

Editor/Author, **Area Array Packaging Processes and Equipment**, McGraw-Hill, NY, published November 2003

Author/Chapter: "Flip Chips", **Chip-Scale Packaging for Modern Electronics**, J. Fjelstad, R. Ghaffarian, Y. Kim, Electrochemical Publications, LTD, Isle of Man, 2003

Author/Chapter: "Photonics", **Science & Technology Yearbook 2002**, McGraw-Hill, NY 2002

Author/Chapter: "Printed Circuit History and Overview", C. Harper, **Electronic Assembly Fabrication**, McGraw-Hill, NY, 2002

Editor/Author, **"Area Array Packaging Handbook ",** McGraw-Hill, NY, Nov. 2001

Author/Chapter: "Conductive Adhesives as a Lead-Free Alternative", Hwang, J., **Environmentally-Friendly Electronics: Lead-Free Technology**, Electrochemical Publications, London, 2001

Coauthor: **Surface Mount Technology Basics**, Seimens, Munich, Germany, 2001

Author/Chapter: "Flip Chip Technology: Materials, and Processes for Next Generation of High-Performance Electronics", **Electronic Packaging and Interconnect Handbook**, McGraw-Hill, NY, 2000

Author/Chapter: "Introduction to Conductive Adhesives", **Conductive Adhesives for Electronics**, J. Lu, Electrochemical Publishers Ltd. UK, 2000

Author, **Handbook of Polymer Thick Film** - Environmentally Conscious Manufacturing, Van Nostrand Reinhold, NY, May 1, 1995

Author/Chapter: "Surface Tension and Rheology", **Handbook of Coating Technology**, Marcel-Dekker, NY 1991

Editor/Author, **Handbook of Flexible Circuits**, Van Nostrand Reinhold, NY, 1992

Author/Chapter: "Screen Printing", **Plastic Finishing and Decorating**, pp. 152-172, Van Nostrand Reinhold, NY, 1986

Author/Chapter: "Nylon Flammability", **Advances in Flame Retardants**, Vol. 5, pp. 165-181, 1975

Patents (29 US published) are listed in separate document.

PAPERS & Presentations

2006

“Step 5 - Dispensable Electronic Materials”, Webcast, Advanced Packaging Magazine, March 9, 2006.

“The Alchemy of Nanotechnology”, CuircuiTree, p. ?, March?, 2006.

“Nanotechnology, MST, MEMS, and MOEMS - Key Technologies of the 21st Century” T-01 TUTORIAL, APEX - IPC Printed Circuits Expo, Workbook, February, 6, 2006, Anaheim, CA.

“Flexible Circuitry Advances: Materials, Processes & Constructions” W-26 Workshop, APEX - IPC Printed Circuits Expo, Workbook, February, 7, 2006, Anaheim, CA.

“Thermoplastic Electronic Packaging: Low Cost – High Versatility”, APEX - IPC Printed Circuits Expo, pp. SO-6, 1-14, February, 8, 2006, Anaheim, CA.

“The New Convergence - Bio, Nano, and MEMS., p.32, February 2006, Circuits Assembly.

2005

“MEMS Wafer-Level Processes”, pp. 199 – 204, November 3-4, International Wafer-Level Packaging Conference, San Jose, CA.

“Brainstorming New Package Ideas”, Panel Presentton/Discussion, November 3-4, International Wafer-Level Packaging Conference, San Jose, CA.

“The Future – the Next 50 Years”, SMTA Vendor Day, Milwaukee, WI, Oct. 18, 2005

“An All-Silicon Package?”, Circuits Assembly, p. 18, October 2005.

“Future Workshop”, SMTA International, Chicago, IL, September 29, 2005

“MEMS Packaging Update”, pp. 20, 22, Advanced Packaging, September 2005.

“MEMs In Medicine”, Circuits Assembly, August 2005.

“MEMs In Medicine”, SMTA Medical Electronics Conference, Minneapolis, MN, April 2005.

“Conductors”, CircuiTree, June 2005.

“The 7,000 Year Cycle”, Circuits Assembly, Vol. 16, June 2005.

“Super Synergy = Flex, Chips and RF Connections”, Keynote Address, IPC International Conference on Flexible Circuits & Chip Scale Packaging, June 22-23 2005, Minneapolis, MN.

“Flex Circuitry Applications from Advanced Packaging to Outer Space”, workshop, IPC International Conference on Flexible Circuits & Chip Scale Packaging, June 22-23 2005, Minneapolis, MN.

“Flexible Circuitry: Materials, Processes & Constructions”, workshop, IPC International Conference on Flexible Circuits & Chip Scale Packaging, June 22-23 2005, Minneapolis, MN.

“Emerging Technology – the Next 50 Years (More Alive in ’55)”, Nepcon East, May 5 2005, Boston, MA.

“MEMS in Medicine”, Medical Electronic Conference, April 25-28, Minneapolis, MN.

“Bumping Technology”, Live Broadcast, Design Expo, March 16, 2005.

“Emerging Technology – It’s Everywhere”, SMTA Long Island, NY March 24, 2005.

“Circuit Jetting”, CircuiTree, March 2005.

Gilleo, K. et al, “Injection Molded & Micro Fabrication Electronic Packaging”, Molding Conference, February 1-4 2005, New Orleans, LA.

Gilleo, K. et al, “Thermoplastic Injection Molding: New Packages and 3D Circuits”, IPC Printed Circuits Expo, February 20-23 2005, Anaheim, CA.

“Flexible Circuitry : Materials, Processes & Construction”, workshop, IPC Printed Circuits Expo, February 20-23 2005, Anaheim, CA.

“MST, MEMS, MOEMS and Nanotechnology”, workshop, IPC Printed Circuits Expo, February 20-23 2005, Anaheim, CA.

“Pack it in! (Your Cellphone, That Is)”, Circuits Assembly, Vol. 16, p 24, February 2005.

2004

“The Circuit War”, CircuiTree magazine, December 2004.

“Could Technology Win World War III?”, Circuits Assembly, Vol. 15, November 2004.

“Emerging Technology”, SMTA – Hennepin Tech MN. November 10, 2004.

“Encapsulation: Materials, Processes and Equipment”, Advanced Packaging, p 38, 40, 42, October 2004.

“Introduction to Circuitry Materials”, TBA Live, San Jose, CA, October 19, 2004.

“The Time is Right for Injection Molded Packages”, SMTA International, September 27, 2004, Chicago, IL.

“Home Grown Circuits”, CircuiTree, p 26, September 2004.

“The World in Your Hand” Circuits Assembly, Vol. 15, July 2004.

Gilleo, K. et al “Low Ball BGA: A New Concept in Thermoplastic Packaging”, Semicon West, July 2004.

“Underfill Update – Materials and Processes”, Advanced Packaging, June 2004.

“Ready for MID?”, CircuiTree, June 2004.

“What Quiet Revolution?”, Circuits Assembly, Vol. 15, May 2004.

“Elements on Demand: Infinite Alchemy?”, Semiconductor International, April 2004.

“Myriad Flex Applications”, CircuiTree, March 2004.

“When are Conductive Adhesives and Alternative to Solder?”, APEX 2004, February 2004, Anaheim, CA.

“The Robots have Landed”, Circuits Assembly, Vol. 15, p 26-27, February 2004,

Flex Workshop, IPC, Phoenix AZ, January 6, 2004.

2003

“Let’s Hear it for Groovy Circuit Mechanics”, CircuiTree, p 24, December 2003.

“Screen Printed Power”, Circuits Assembly, Vol. 14, November 2003.

“Introduction to Flexible Circuitry – Materials, Processes and Applications”, IEEE Workshop, November 2003, Burlington, MA.

“What a Difference a Year Makes – Advanced Packaging”, Keynote, Peaks in Packaging, Whitefish, MT, Oct. 6, 2003

The Final Revolution? Semiconductor International, Vol. 26, No. 11, October 2003.

“Time to Bring Back 3D Molded Circuits? CircuiTree, p 22, Sept. 2003.

“The Most Important Emerging Technology”, Circuits Assembly, August 2003.

“Exploring the Nanoworld”, Circuits Assembly, Vol. 14, August 2003.

“Can ET Pull Us Upward?”, SMTA Meeting/Nepcon East, Boston, MA, June 11, 2003.

“What’s Tomorrow’s Technology?”, Nepcon East, Boston, MA, June 2003.

“The 5 Most Important Emerging Technologies”, Panel Presentation, Nepcon East, Boston, MA, June 10, 2003

“Invention of Circuitry and the German Heritage”, Redaktion Elektronik, Germany, pp. 55 – 66, 29 June 2003.

“The Circuit Centennial – Tribute to 100 Yeas of Innovation”, CircuiTree Magazine, June 2003.

“Emerging Technology”, SMTA – 3M Company, June 4, 2003.

“The Other Circuit Process”, CircuiTree, p 32, June 2003.

“Get the Lead In! Getting the Lead In?”, CircuiTree, May 2003.

“Plastic Hermetic Packages for MEMS”, IMAPS New England 30th Annual Symposium, May 8, 2003, Boxboro, MA.

“Emerging Technology Will Jump-Start the Economy”, IMAPS New England 30th Annual Symposium, May 8, 2003, Boxboro, MA.

“Chemists in Electronics”, Microelectronics in New England, Vol. XXVI No.1, May 2003.

“A Smorgasbord of Emerging Packaging Technologies”, April 4, 2003, SMTA Webcast, Edina, MN.

“Hermetic Plastic Packaging”, IMAPS Viking Chapter Symposium, April 7, 2003, St. Paul, MN.

“The Circuit Centennial”, CircuiTree, April 2003.

“The Final Revolution”, EP&P, April 2003.

“Airport Security”, CircuiTree, April 2003.

“Flex Circuitry and New Flex-Based Packages” - Workshop, APEX Conference, March 30, 2003, Anaheim, CA.

“Conductive Adhesives” - Workshop, APEX Conference, March 30, 2003, Anaheim, CA.

“Introduction to MEMS, MOEMS and Optoelectronics” – TUTORIAL, APEX Conference, March 29, 2003, Anaheim, CA.

“Plastic Hermetic Packages for MEMS, MOEMS and Optoelectronic Devices?”, IPC SMEMA Council, March 2003, Long Beach, CA.

“Flexible Circuits Workshop”, IPC Circuit Expo, March 23, 2003, Long Beach, CA.

“Catalyze the IMAPS Revolution in Boston”, IMAPS Advanced Microelectronics Journal, V. 30, No. 2, p 14-15, March/April 2003.

“The Final Revolution”, EP&P magazine, March 2003

“Centennial Salute to Circuitry” Special Keynote, PCB West Conference, March 11, 2003, San Jose, CA.

“100 Years into the Future”, PCB West, San Jose, CA, March 2003.

“The Great Nanohoax?” EP&P, February 2003.

“Can ET Pull Us Up?” Pan Pacific Microelectronics Symposium, February 18 – 20, 2003, Kohala Coast, HI.

“ET Upward”, Invited Lecture, February 14, 2003, Worcester Polytechnic Institute, Worcester, MA.

“100 Years of Circuitry”, IPC Flex and Chips Conference, February 11-12, 2003, Tempe, AZ.

“MOEMS and Optoelectronics Workshop”, January 15, 2003, by invitation from Hong Kong Productivity Council (HKPC), Kowloon, Hong Kong.

“Nanotechnology and MEMS Workshop”, January 14, 2003, Hong Kong Productivity Council, Kowloon, HK

2002

“On the Verge of Converge”, EP&P, December 2002

“Interposer Multilayer Circuitry”, CircuiTree, November 2002

“The NHP Factor”, EP&P, November 2002

“MEMS and Telecommunications”, Ericsson Sponsor, October 11, 2002, Molndal, Sweden.

“RF-MEMS Tutorial”, IMEGO, October 10, 2002, Gothenburg, Sweden.

“MEMS Seminar”, Chalmers University, October 10, 2002, Kemivagen, Sweden.

“A Century of Chemists Crafting Circuits”, Microelectronics in New England (IMAPS), Vol. XXV, No. 3, Winter 2002.

“MEMS and Packaging”, IVF Institute, October 9, 2002, Gothenburg, Sweden.

“Metalworking in the 21st Century”, EP&P, October 2002.

“MEMS and the Military”, SAAB-Bofers Sponsor, October 8, 2002, Karlskoga, Sweden.

“Flip Chip and Underfill” as thesis opponent, Orebro University, October 7, 2002, Orebro, Sweden.

“MEMS and Emerging Technology”, Invited Lecturer, October 6, 2002, Uppsala, University, Stockholm, Sweden.

“147 Year History of Optoelectronics”, October 1, 2002, IMAPS Nordic, Stockholm, Sweden.

“MEMS and RF Tutorial”, September 30, 2002, IMAPS Nordic, Stockholm, Sweden.

“Optoelectronics Tutorial”, pp. 140 – 145, IMAPS Nordic Annual Conference, Stockholm, Sweden, September 29, 2002.

“Will MEMS Become All-Pervasive”, p 762 – 767, SMTA International, Chicago, IL, September 22 – 26, 2002.

4 Dimensional PCB Designs”, CircuiTree, August 2002.

“The Real History of Chip on Flex”, Circuitree, July 2002.

“Thinking Out of the Hermetic Box”, EP&P, July 2002

“Introduction to Optoelectronics”, IPC 2nd International Conference on Optoelectronics, San Francisco, CA, June 12 – 13, 2002.

“Never Need Batteries Again”, EP&P, June 2002.

“The Real Warbots”, EP&P, May, 2002.

“Optoelectronics Packaging: New Concepts & Preliminary Results”, April 23 – 25, 2002, Microsystems Conference, Binghamton, NY.

“Fluid Jetting for Next Generation Packages”, April 22, 2002, Four th Workshop Area Array Packaging Technologies, Berlin, Germany.

“Optoelectronics vs. Electronics: The Difference is Elementary”, Optoelectronics, pp 3-7, April, 2002.

“Leaping Tall Buildings and Other Obstacles!”, EP&P, April 2002.

“An Elemental View of Optoelectronics & Electronics” EP&P, March, 2002.

“Flexible Circuitry Advances” Workshop, IPC Circuits Expo, Long Beach, CA March 24, 2002.

“Electronics, Photonics and Packaging”, Microelectronics in New England (IMAPS), Vol. XXV, No. 1, Summer 2002.

“Adding a Little Light to the nano-World”, pp. 58 – 64, Pan Pacific Microelectronics Symposium, Maui, HI, February 5 – 7, 2002.

“The Ominous ET Attack?” EP&P, February 2002.

Conductive Adhesives", Workshop, January 21, 2002, APEX, San Diego, CA

"Flex Circuitry and New Flex-Based Packages", Workshop, January 21, 2002, APEX, San Diego, CA

"Introduction to MEMS, MOEMS and Optoelectronics" Tutorial, January 20, 2002, APEX, San Diego, CA.

"Frontline – Technology Update", EP&P, Janauary 2002.

"Underfill Update: NUF, MUF, WUF, and Other Stuff", web article, 2002, posted on FlipChips.com

2001

"When Worlds Collide", EP&P, December, 2001

"Industry Historian Takes Exception to Flip-Chip's Birthday", Letter to the Editor, Chip Scale Review, p 26 Nov./Dec. 2001.

"RF-MEMS What?", EP&P, November 2001.

"MEMS and MOEMS Basics", September 23, 2001, IMAPS Nordic, Oslo, Norway.

"MEMS and MOEMS Packaging", September 23, 2001, IMAPS Nordic, Oslo, Norway.

"Is the Chemical Battery Dead?" Microelectronics in New England (IMAPS), Vol. XXIV, No. 3, Winter 2001.

"No Place to Go But Up", EP&P, October 2001.

A. Rae, K. Gilleo et al, "Materials and System Choices for Bluetooth and Beyond", pp. 721 - 725, SMTA International, Chicago, IL September 30 – October 4, 2001.

"World's Best Minimal Package?", EP&P, September 2001.

"A Smorgasbord of Packages – Petite and Light", pp. 1-6, Journal of SMT, July 2001.

"The Next Big Event?", EP&P, July 2001.

"When are Conductive Adhesives an Alternative to Solder?", pp. 147 – 155, Proc. Advanced Packaging Technologies in Electronics Industry (SMTA), Boston, MA, June 12 – 13, 2001.

A. Rae, K. Gilleo et al, “Materials and System Choices for Bluetooth and Beyond”, pp. 115 – 120, Proc. Advanced Packaging Technologies in Electronics Industry (SMTA), Boston, MA, June 12 – 13, 2001.

“Chemists in Electronics”, Microelectronics in New England (IMAPS), Vol. XXIV, No. 2, Summer 2001.

“The Real e-Ticket”, EP&P, June 2001.

“A Brief 3-Millenia History of Digital Wireless”, EP&P, May 2001.

“Future Applications for MEMS/MOEMS Technology”, pp. 26 – 32, IPC International Conference on Optoelectronics, Toronto, Canada, May 3 – 4, 2001.

“Getters: Molecular Scavengers for Packaging”, Engineering Times Asia, May 2001.

MOEMS: Key to Ultrabroadband on the Internet, June 25 – 27, 2001, Electronics Packaging Symposium, (SUNY) Binghamton, NY.

“Photonics Challenge to Electronic Packaging”, IEEE Trans., Component & Packaging Technology, V. 24, #2, June 2001.

“Catcing the Big Wave”, HDI, June 2001, p 40-42.

“Glass Houses”, PC Fab, April 2001.

“Light Duty: Managing MOEMS” Electronic News, March 2001.

“Packaging and Interconnect Challenges Posed by Converging Chip Level Technologies”, K&S 9th Annual Packaging Symposium, Sunnyvale, CA, 2001.

“Overview of New Packages, Materials and Processes”, pp. 1 – 5, International Symposium on Advanced Packaging Materials (IMAPS), Braselton, GA, March 11 – 14, 2001.

“MEMS Packaging: Is it Ready for Prime Time?”, Electronic News, March 5, 2001.

“Flexible Circuitry Advances” Workshop, IPC Circuits Expo, Anaheim, CA April 2, 2001.

“Flip Chip Assembly with Conductive Adhesives”, SGIA Journal, 2001.

“A Smorgasbord of Packages – Petite and Light”, pp. 113 – 118, Pan pacific Microelectronics Symposium, Kauai, HI, Feb. 13 – 16, 2001.

2000

"Advanced Packaging Materials and Processes", October 12, 2000, tutorial, National Physics Laboratory, UK.

"MEMS Packaging Issues", NSF Workshop on Mfg. of MEMS, November 7, 2000, Double-Tree Hotel, (ASU sponsor) Orlando, FL

"MOEMS the Word", Circuits Assembly, November 2000, p 28-31, 33-34.

T. Chen, B. Cotterman, K. Gilleo, P. Weber, "Molded Underfill for Flip Chip in Package", Proceedings SMTA International, pp. 201 – 205, Chicago, IL, September 26 – 28, 2000.

"MEMS Packaging Issues and Materials", pp. 598 – 604, Proc. 33rd International Symposium on Microelectronics (IMAPS), Boston, MA, September 20 – 22, 2000.

"MEMS Packaging and Assembly Issues", Proceedings SMTA International, pp. 784 - 789 , Chicago, IL September 26-28 , 2000.

K. Gilleo and G. Bacon, "Parylene Coatings for MEMS", Vacuum Technology & Coating, July 2000.

"Flex as an Advanced Packaging Medium" Workshop, IPC 6th Annual Conference on Flex Circuits, Doubletree Hotel, Dallas, TX, June 7, 2000.

"Flex-Based Packaging Solutions – From CSP to MEMS", 6th Annual Flexible Circuit Conference (IPC), Dallas, TX, June 8 – 9, 2000.

"MEMs Packaging Solution", EP&P, June 2000, p 49-50, 52-53, 55-56.

"MEMS Packaging Solutions Open New Markets", EP&P, June 2000.

"H2: The Wrong Gas for GaAs", IMAPS New England 27th Annual Symposium, Boxboro, MA, May 9, 2000.

K. Gilleo and D. Blumel, "Wafer Level Flip Chip Enabled with Solid Underfill", IMAPS High Density International Conference, Adams Mark Hotel, Denver, CO, April 25 – 28 2000.

K. Gilleo, J. Murray, Chapter 1 Circuit Patterning "The History of PCB Technology", PC Fab, pp 18-20, 22, March 2000.

"The MEMS PCB Assembly Challenge", Circuits Assembly, pp. 62, 64, 66, 68, 70, March 2000.

"Flex-Based Packaging Solutions from CSPs to MEMS", Flexible Circuitry & Electronic Packaging, pp 7-12, April/May 2000.

“MEMS Packaging Issues”, Position Paper, NSF Workshop 2000 on MEMS, Orlando, FL

“MEMS Packaging Solutions Open New Markets”, pp. 49, 50, 52, 53, 54, 56, 58, EP & P magazine, June 2000.

“Flip Chip Assembly with Conductive Adhesives”, IMAPS Proceedings 2000 HD International Conference on High-Density Interconnect, Denver, CO.

“Flex as an Advanced Packaging Medium” – Workshop, April 7, 2000, IPC Flex Circuit Conference, Dallas, TX.

K. Gilleo, B. Cotterman, and I.A. Chen, “Molded Underfill for Flip Chip in Package”, HDI, pp. 28-31, June 2000.

“The Chemistry & Physics of Underfill”, Proceedings NEPCON West, Anaheim, CA, pp 280-292, March 1 – 5, 1998.

“Wafer-Level Flux Underfill: Underflip!”, pp. P-MT1/4 1 – 4, APEX, Long Beach, CA, March 12 – 16, 2000

“The 4-Way Underfill Race, pp (not numbered), IMAPS International Adv. Tech. Workshop on Flip Chip, Braselton, GA, March 3 – 5, 2000

“Flex Circuit Applications and New Flex-Based Packages”, Workshop, APEX, Long Beach, CA March 13, 2000

“Polymer Solders: The Cool Lead-Free Alternative”, Nepcon East, Boston, MA, June 2000

“Flex in the New Millennium”, Flexible Circuitry & Electronic Packaging, January 2000

K. Gilleo, J. Murray, Chapter 13 “The Next Century of the Printed Circuit”, PC Fab pp 20-23, January 2000

1999

K. Gilleo, D. Blumel, “The Ultimate Flip Chip Integrated Flux/Underfill”, Proceedings NEPCON West, Anaheim CA, pp 1477 – 1488, 1999

K. Gilleo, D. Blumel, “Transforming Flip Chip into CSP with Reworkable Wafer Level Underfill”, Proceedings Pan Pacific Microelectronics Symposium, pp 159-165, ‘99

K. Gilleo, J. Murray, Chapter 12 “The Educators”, PC Fab, pp 22-25, December 1999

K. Gilleo, J. Murray, Chapter 11 “The Captives”, PC Fab, pp 18-22, November 1999

K. Gilleo, J. Murray, Chapter 10, PC Fab, October 1999.

K. Gilleo, J. Murray, Chapter 9 “Flex Circuits”, PC Fab, pp 18-21, September 1999

K. Gilleo, J. Murray, Chapter 8 “The Industry’s Suppliers”, PC Fab, pp 16-19, August 1999

K. Gilleo, J. Murray, Chapter 7 “The Molded Circuit Revolution”, PC Fab, pp 16-20, July 1999

K. Gilleo, J. Murray, Chapter 6 “The Early Independents”, PC Fab, pp 18-21, June 1999

K. Gilleo, J. Murray, Chapter 5 “The Printed Circuit as a Chip Carrier – Part 2”, PC Fab, pp 18-20, May 1999

K. Gilleo, J. Murray, Chapter 4 “The Printed Circuit as a Chip Carrier – Part 1” PC Fab, pp 20-22, April 1999

K. Gilleo, J. Murray, Chapter 3 “The Rise and Fall of the Father of the PCB”, PC Fab, pp 24-27, March 1999

K. Gilleo, J. Murray, Chapter 2 “Printed Circuitry Goes to War”, PC Fab, pp 22-25, February 1999

Chapter 1 “The History of the Printed Circuit”, PC Fab, pp 18-21, January 1999

K. Gilleo, B. Boyes, S. Corbett, G. Larson, D. Price, “High Volume Low Cost Flip Chip Assembly on Polyester Flex”, Circuit World, pp 11-17, February 1999

“Time to Give Flip Chip a Rest?”, HDI, p 38, April ‘99

K. Gilleo, D. Blumel, “Wafer Level Flip Chip: Bumps, Flux & Underfill, HDI pp 22, 24-27, September 1999

K. Gilleo, S. Corbett, “RFID Tags Enabled by Flip Chip”, HDI, pp 28-32, February 1999

Gilleo, K, et al, “Towards a Better Understanding of Underfill encapsulation for Flip Chip Technology”, 39, MICROELECTRONICS INTERNATIONAL, Vol. 16, No. 2, 1999

K. Gilleo, N. Kerrick, G. Nicholls, “Materials & Processes for MR & GMR Heads & Assemblies” HDI magazine 1999

“Wafer Level Flip Chip Enabled with Solid Underfill”, IMAPS High Density International Conference, Denver, CO Date? 2000

K. Gilleo, R. Lasky, G. Nicholls, “Reworkable Packaging Materials – Die Attach and Underfills”, pp. 255 – 268, HDI Expo, Mesa, AZ, August 23 – 25, 1999

K. Gilleo, S. Corbett, “RFID Tags Enabled by Flip Chip”, (pages not numbered) IMAPS International Adv. Tech. Workshop on Flip Chip Technology, Braselton, GA, March 12 – 14, 1999

K. Gilleo and D. Blumel, “The Ultimate Flip Chip – Wafer-Level Underfill”, Anaheim, CA, Nepcon West, February-March 1999

New Generation Underfills Power the 2nd Flip Chip Revolution, pp. 147 – 154, Mauna Lani, HI, Pan Pacific Microelectronics Symposium, February 10 –13, 1998

“Flex Circuits and Flex-Based Packaging”- Workshop, Nepcon Philadelphia, Philadelphia, PA, date? 1999

1998

“Chip Scale or Flip Scale: The Wrong Question?” Circuits Assembly, pp 30, 31-34, February 1998

K. Gilleo, D. Blumel, “New Generation Underfills Power the 2nd Flip Chip Revolution”, Proceedings Pan Pacific Microelectronics Symposium, Mauna Lani, HI, pp 147-154, February 1998

K. Gilleo, D. Blumel, “The Great Underfill Race”, Proceedings International Symposium on Microelectronics, IMAPS, San Diego, CA pp 701-706, November 1998

“Packaging Problems?”, PC Fab, pp 18-20, 22- 24, September 1998

“Will Flip Chip Become the Ultimate CSP?”, IMAPS New England 25th Annual Symposium, Andover, MA, May 14, 1998

“Putting the Flex Puzzle Together”, Flexible Circuitry International, pp 8, 16, 21, 22, March/April 1998

“Flexible Circuitry A Century of Solutions”, PC Fab magazine, May 1998

“The Chemistry & Physics of Underfill”, Proceedings NEPCON West, Anaheim, CA, pp 280-292, March 1 – 5, 1998.

“Will Flip Chip Become the Ultimate CSP?”, IMAPS 2nd International Adv. Tech. Workshop on Low Cost Flip Chip, Braselton, GA, March 13 – 15, 1999.

K. Gilleo et al, “Flip Chip and Advanced SMT Assembly with PTF Technology”, pp. 101 – 107, IPC 4th National Conference on Flexible Circuits, San Jose, CA, March 18 – 19, 1998 .

1997

“Flex in the Year 2000 Plus”, Flexible Circuits Engineering, pp 10-15, 18-19, July/August 1997.

“Early and Fascinating History of the Printed Circuit”, Flexible Circuits Engineering, pp 13-15, 26-29, March/April, 1997.

“Flex Based Packaging Part 3”, Flexible Circuits Engineering, pp 10-12, 14-15, May/June 1997.

“Flex Circuits and Flex-Based Packaging: Design Materials and Applications”, Microtech Conference, Austin, TX, June 1997.

“Flex-Based Packaging – An Introduction”, Flexible Circuit Engineering Magazine, January/February 1997.

K. Gilleo, T. Cinque “Polymer Materials: The Empowerment of Flip Chip”, pp. 86 – 95, Sunnyvale, CA, Proc. ITAP, February 18 – 19, 1997.

“Flip or Flop”, Circuits Assembly, pp 40-42, 44-48, February 1997.

“Flex Circuit Technology” Tutorial, Flexcon, Sunnyvale, CA September 22, 1997.

1996

“Polymer Thick Film Technology”, Pollution Prevention Review, pp 65-74, Summer 1996.

K. Gilleo, T. Cinque, A. Silva, "Flip Chip 1, 2, 3: Bump, Bond and Fill”, Circuits Assembly, pp 32-34, June 1996.

“Adhesives/Epoxies and Dispensing”, SMT, pp 56, 58, 60, May 1996.

“Flex Based Packages” Flexible Circuits Engineering, pp 6-9, July/August 1996.

“Advances in Packaging & Assembly Polymers”, Microelectronics International, pp 19-22, September 1996.

K. Gilleo, T. Cinque, A. Silva, " Flip Chip 1, 2, 3: Bump, Bond & Fill”, Circuits Assembly Asia, pp 34, 36, 38, 48, September/October 1996.

“Advanced Electronic Polymers for Bare Die Assembly and Protection: BGA, COB, CSP and Flip Chip Applications”, Midwest Electronics Expo, September 1996.

“Flip or Flop” 3rd Annual SMTA National Symposium, Research Triangle Park, NC, October 1996.

“Flip Chip 1, 2, 3”, IPC National Conference on Flip Chip & Chip Scale Packaging of ICs, Raleigh, NC, May 13 -14, 1996.

“Printed Package Revolution” – EP&P, 1996.

“Electronic Materials, Processes and Equipment for Chip-on-Board” Tutorial, International Flip Chip, BGA, TAB, Adv. Pack. Symposium, Feb. 14, 1996.

1995

“Electronic Polymers and the Packaging Revolution”, Circuit World, December 1995.

“Conductive Adhesive Assembly Implementation: When, Where & Why?” IPC Proceedings, November 1995.

“What’s Behind Flex Success? Solutions, Solutions, Solutions!”, Flexible Circuits Engineering, pp 8-11, Fall 1995.

K. Gilleo, T. Cinque, C. Lee, “Evolving Encapsulants” Advanced Packaging, pp 86-89, July/August ’95.
T. Cinque & K. Gilleo, "Implementing SMT With Conductive Adhesives", Surface Mount International, August 27, 1995, San Jose, CA.

Session Chair, K. Gilleo, "Flip Chip on Flex", Surface Mount International, Aug. 27, 1995, San Jose, CA

"SMT Assembly Using Conductive Adhesives & Other Polymer Based Electronic Materials", Workshop/Tutorial, Surface Mount International, August 1995, San Jose, CA.

"SMT Assembly Using Conductive Adhesives", Workshop at EMPF Government Laboratory, 1995, Indianapolis, IN.

K. Gilleo & L. Turbini, "Polymer Offers Environmental Solutions and Performance Challenges", IEEE Electronics & the Environment, Orlando, FL, May 1995.

"Electronic Polymers = Environmental Conscious Manufacturing", Nepcon West, March, 1995.

“Electronic Polymers and the Environment”, March 7, 1995, ISHM, Boston, MA.

“Assembling with Conductive Adhesives”, SMT, March 1995.

"Dispensing Epoxies/Adhesives”, SMT, April 1995.

"Conductive Adhesive Assembly Implementation: When, Where & Why?", Assembly, February 1995.

"Conductive Adhesives", SMT International, 1995.

"The First Century of the Printed Circuit", PC FAB, 1995.

"Electronic Polymers”, M. Corey & K. Gilleo, 1995.

"The Great Solder Shoot-Out: Polymer Adhesives Vs. Metallurgical Solder", T. Cinque & K. Gilleo, SMTA, March 8, 1995, Boston, MA.

“Making the No Lead Connection”, Assembly, pp-26-28, 30, 32, March 1995.

“Assembly with Conductive Adhesives”, Soldering & Surface Mount Technology, pp 12-17, February 1995.

"Are Polymer Solders the Answer to "No Lead" Assembly?” SMT, pp 39, 42-45, January 1995.

“Conductive Adhesives for Electronics Assembly”, Assembly magazine early 1995.

“Introduction to Flexible Circuitry” Workshop, International Flip Chip, BGA, TAB and Packaging Symposium, San Jose, CA February 14 – 17, 1995.

1994

“Overview and Status of Joining Materials”, Special Seminar, September 21, 1994, Stockholm, Sweden.

"Poly-Solder-C: Breakthrough in Performance", K. Gilleo & S. Corbett, First International Conference on Conductive Adhesives, November 2-4, 1994, Berlin Germany

"Conductive Adhesives for Flat Panel Displays", ISHM Flat Panel Display Conference, Ismoralda, FL, November 1994

K. Gilleo & L. Turbini, "Polymer Offer Environmental Solutions and Performance Challenges", IEEE Environmental Workshop, October 20 - 22, 1994, Yorktown, NY.

"Are Polymer Solders the Answer to "No Lead" Assembly?" SMTA-EXPO, Research Triangle Park, NC, October 18 - 19, 1994.

"The Real History of Flex", First International Conference on Flex Circuits, Sunnyvale, CA, October 12-15, 1994.

"PTF: the Low Cost Side of Flex", R. Iannetta & K. Gilleo, First International Conference on Flex Circuits, Sunnyvale, CA, October 12-15, 1994.

"Conductive Adhesives Overview", Philadelphia SMTA Meeting, October 4, 1994.

"Joining Materials: Past, Present Future - a 400 Million Year History", Scandinavian Electronics Conference, Gothenburg, Sweden, September 13, 1994 (this is 33 page paper printed and distributed by IVF and Ericcson).

"World Status of Solder Alternatives", Komponent Conference, October 21, 1993, Stockholm, Sweden.

K. Gilleo & P. Ongley, "Next Generation Anisotropic Conductive Adhesives", ISHM-Nordic Conference, Helsinki Finland, September 25 - 28, 1994.

"Tutorial on Conductive Adhesives", Surface Mount International, August 31, 1994, San Jose, CA.

R. Carpenter & K. Gilleo, "Conductive Polymer Bonding Process As An alternative to Tin/Lead Soldering", Soldering Fluxes and Pastes Conference, Atlanta, GA, June, 1994.

"International Developments in Conductive Adhesives", Introduction and Chair, Surface Mount International, August 31, 1994, San Jose, CA.

"Assembly With Conductive Adhesives - tutorial", Surface Mount International, August 31, 1994, San Jose, CA.

"Electronic Polymers", Advanced Packaging, pp. 37-38,40,42, September/October 1994.

"First 7000 Years of Soldering - Part 1 - Metallurgy", Circuits Assembly, pp. 30-34, October 1994.

"First 7000 Years of Soldering - Part II- Polymers", Circuits Assembly, pp. 44 - 45, November 1994.

R. Carpenter & K. Gilleo, "Poly-Solder Junction-Stable Adhesive", 1994, Midwest EXPO.

S. Corbett & Ken Gilleo, "Polymer Solder", Productronika, May 1994, Munich, Germany.

R. Carpenter & K. Gilleo, "Trends in Electronic Polymers", Electrecon, May 18, 1994, Indianapolis, IN.

"Conductive Adhesives", May 1994, EP&P.

"Organic Solders Take on New Shapes", NJ, June 21, 1994.

"Technology of Adhesives for Surface Mount", Review for the Surface Mount Council, June 1994.

"Adhesives/epoxies & Dispensing", SMT, pp. 54 - 58, April 1994.

"Polymer Joining Alternatives", Introduction and Chair, Electro '94, May 10, 1994, Boston, MA.

"Conductive Adhesives Guidelines", April 1994, IPC.

J. Bolger & K. Gilleo, "Area Bonding Conductive Epoxy Adhesives for Grid Array and MCM Substrate Attach", IEEE MCMC-94, March 16, 1994.

"Alternatives to Lead Solder", PC Fab, February 1994.

"Poly-Solder: A New Junction-Stable Conductive Adhesive", .Electronic Engineering, 1994.

K. Gilleo & N. Socoloski, "Are Polymer Solders Real?" Technical Proceedings of NEPCON WEST, pp.922-929, February/March, 1994.

"Evaluating Polymer Solders - Part 1", Circuits Assembly, pp. 52-56, January 1994.

"Evaluating Polymer Solders - Part 2", pp 50-53, Circuits Assembly, February 1994.

The First 7000 Years of Soldering", International Flip Chip and TAB Conference, San Jose, CA, February 17, 1994.

K. Gilleo, et al, "Thermoplastic Die Attach Adhesive for Today's Packaging Challenges", EP&P, pp. 109-112, February 1994.

"Are "Polymer Solders Real?: Metallurgical Vs. Adhesive Joining", Electronics Manufacturing Engineering, Vol.9, No.2, Second Quarter 1994.

Nepcon West 1994 reprinted paper in ASTM Quarterly Journal 1994.

"Latest Trends in Electronic Polymers", May 18, 1994, Electrecon, Indianappolis, IN.

“Thermoplastic Die Attach”, June 23, 1994, SAMPE. NJ.

K Gilleo, T. Cinque, S. Corbett, M. Corey, C. Lee, R. Muculich, " Die Attachment for Today’s Packaging", EP&P pp 109, 110, 112, February 1994.

“Adhesive/Epoxy Dispense”, Circuits Assembly, February 1994.

K. Gilleo, D. Carpenter, “Conductive Polymer Bonding Process as an Alternative to Tin/Lead Soldering”, Flex Circuit Conference, Sunnyvale, CA, 1994.

“The 100 Year History of Flex Circuits”, keynote, February 15 – 18, TAB/Advanced Packaging Symposium, Red Lion Hotel, San Jose, CA.

1993

"Intrinsically Clean Polymer Bonding: What Are the Trade-Offs", Proc. of Technical Program Surface Mount International, pp. 655-661, San Jose, CA, August –September 1993.

“Polymer Bonding Systems Offer Alternatives to Soldering”, EP&P, pp 52-54, 56, December 1993.

K. Gilleo, et al, "Thermoplastic Die Attach Adhesives - The Attachment Solution for MultiChip Modules", IEPS September 1993.

"Evaluating Polymer Solders for Lead-Free Assembly", Proceedings IPC Fall Meeting, Wash. DC, October 24-28, 1993.

"Area Array Chip Carrier: SMT Package for Known Good Die", M. Loo & K. Gilleo, pp. 318 - 323, ISHM Proceedings, 1993.

"The Chip Carrier - Enabling Technology for the MCMs", pp. 88-89, EP&P September 1993.

"Poly-Solder: A New Junction-Stable Conductive Adhesive for Rigid Boards", Proceedings of Recent Achievements in Conductive Adhesive Joining Technology, Gothenburg, Sweden, September 23-24, 1993.

“Poly-Solder: A New Junction-Stable Conductive Adhesive for Rigid Boards”, Proceedings 31st ISHM Nordic Conference, Sweden, September 1993.

M.C. Loo and K.B Gilleo, "A Feasibility Study of BGA Packaging”, NEPCON East 1993.

M. C. Loo and K. B. Gilleo, "μBGA Carrier: SMT Package for Known Good Die”, Proc. ISHM, October 1993 .

1992

"The Polymer Electronics Revolution", Tech. Proc. NEPCON WEST, pp. 1390-1402, February 1992.

"SMT-FLEX = Maximum Versatility and Reliability", EP&P, pp. 56-59, July 1992.

“SMT-FLEX: Past, Present, Future", Rochester, NY.

"Solderless Assembly Reduces Cost, Hazards and Pollution”, Journal of Electronics Manufacturing, pp 37-41, 1992.

"Polymer Bonding Systems Offer Alternatives to Soldering", pp.52, 54 EP&P, December 1992.

"The First 100 Years of Flex", ITAB/Flip Chip Conference, San Jose, CA, February 1992.

"Riding the Wave of Electronic Polymers into the 21st Century" ISHM, Boston, MA 1992.

“Modern Polymer Bonding Systems Offer Alternatives to Soldering”, EP&P, 1992.

1991

"PTF Pure and Simple", ISHM-Boston, 1991.

"Conductive Adhesives: The Clean, Safe Alternative to Soldering", IVF Symposium, Sweden, October 1991.

K. Gilleo, A. Chu, D. Vieau, "High Stability Solderless Junctions Using Advanced Conductive Adhesives", Tech. Proc. NEPCON WEST, pp. 193-212, February 1991.

1990

"A New Multilayer Concept Based on Anisotropicity", Technical Proceedings, NEPCON WEST, Anaheim, CA pp. 8 -31, February 1990.

"TAB-FLEX - The Real Chip-On-Board", ref. lost.

"Direct Chip Interconnect Using Polymer Bonding Technology", IEEE Transactions CHMT, Vol. 13, No.1, March 1990.

"Expanding the Capability of Flexible Circuitry", Electronic Manufacturing, pp 18, 20, 21, September 1990.

1989

"A Simplified Version of the Multilayer Circuit Process", EP&P, pp. 134-137, February 1989.

"3-D Circuits: Have They Arrived?", EP&P, pp.111-114, October 1989.

"Solderless SMT Assembly Now A High Volume Commercial Reality", pp. 325-334, EXPO SMT, Las Vegas, NV, November 1989.

"Direct Chip Interconnect Using Polymer Bonding Technology", 39th Electronic Components Conference, pp. 37-44, IEEE, Houston, TX, May, 1989.

"Rheology and Surface Chemistry for Screen Printing", Screen Printing, pp. 128-132, February 1989.

"Flexible Circuitry - The Power Hybrid Alternative", MIT Flexible/Industry Power Electronics Collegium Workshop, Cambridge, MA April 1989.

"Direct Chip Attach Using Polymer Bonding Technology", pp.37 – 44, EEC, IEEE 1989 Proceedings.

“Solderless SMT”, SMT Expo Las Vegas, NV, November 1989.

1988

"SMT-FLEX - The Synergistic Solution", EXPO SMT '88, Las Vegas, NV Proceedings pp 207-213, November 1988.

"Copper/PTF Hybrid Flex Circuitry", ISHM Micro symposium, Minneapolis, MN, September 1988.

"The Mylar Myth - Soldering Made Easy", Screen Imaging Technology for Electronics, pp.6 - 10, August 1988.

"Copper and PTF Merge", Circuits Manufacturing, July 1988 pp 34-36.

"Screen Printing vs. Photoimaging", Screen Imaging Technology for Electronics, pp. 24-27 June 1988.

"Anisotropic Adhesives: Screen-Printed Electronics Assembly", Screen Imaging Technology for Electronics, pp. 20-23, April 1988.

"Future Directions for Tape Automated Bonding", Connection Technology, pp. 16-20, March, 1988.

"Screened Through Hole Technology", Screen Imaging Technology for Electronics, pp. 18-21, February 1988.

“Z-Link A New Multilayer Circuit Process”, EP&P Magazine, 1988.

1987

"Screen Printed Electronics", Screen Imaging Technology for Electronics, pp. 42-47, October 1987.

"The Chemist in Electronics", Circuits Manufacturing, pp. 27, 28, 30, March 1987.

“Mislabled TABs”, Connection Technology, p 8, March, 1987.

"Focus on Fabricators", Printed Circuit Fabrication, pp. 162-167, February 1987.

"PTF Merges with Flexible Circuitry", EP&P, pp. 125-126, January 1987.

K. Gilleo, K. Casson, “Focus on Fabricators”, PC FAB, p 162, 164, 167, February 1987.

“PTF, SMT & Flex, A Winning Combination” NEPCON West Proceedings, pp 223-229, February 1987.

“TAB – Where is it Really Going?” Connection Technology, 1987.

1986

"Flexible Printed Wiring - A Versatile Connection System", Connection Technology, pp. 42-45, April 1986.

"Using Surface Mount Devices on Flexible Circuitry", Electri-onics, pp. 20-23, March 1986.

“PTF Merges with Flexible Circuitry” – EP&P, July 1986.

“SMD-Flex”, Electronics, early 1986.

1985

"Polymer Systems for Connection/Interconnection", Connection Technology, pp. 23-25, July/August 1985.

"Roll to Roll Hybrid Circuits - Keep Your Designs Flexible", presented at the International Society for Hybrid Manufacturers, Minneapolis, MN, May 15, 1985.

"Polymer Thick Film - A Solderless, Copperless Approach", presented at the Society for the Advancement of Material and Process Engineering, Minneapolis, MN, May 1985.

"PTF, SMT and Flex, A Winning Combination", presented at NEPCON WEST, Anaheim, CA, February 1985.

“Using Surface Mount Devices on Flexible Circuitry”, Electronics, pp 23-25, July/August 1985.

“Polymer Thick Film (PTF) Circuits”, presented at the Soc. For Advancement of Material & Process Engineering, Minneapolis, MN, May 1985

1980

Lagally, M. G., et al & Gilleo, K., "Analysis of the Composition of Discolored Aluminum Film Vapor Deposited onto Plastic", Proceedings - International Conference on Metallurgical Coatings, April 1980.

"Analysis of the Composition of a Discolored Aluminum Film Vapor-Deposited onto Plastic", M. G. Lagally, S. R. Anderson, N. C. Tran, T. Hoang, and K. Gilleo, Thin Solid Films **72**, 151 (1980).

1979

"A Tail Light Reflector that Reflects Better", UIR Newsletter, University of Wisconsin - Madison, 1979.

1974

"Nylon Flammability - Effects of Thiourea, Ammonium Sulfamate and Halogen Compounds", Ind. Eng. Chem., Product Research & Development, Vol. 13, No. 2, pp. 139-143, June 1974,

1972

"A Non-Classical Approach to Flame Retardants", Conference on Flammability, University of Detroit, November 1972,

1969

"New Reactions of Aliphatic Halonitroalkanes", Tetrahedron Letters, Vol. 49, pp. 4311-4312, 1969,

"Reactions and Rearrangements of Bicyclic Compounds", Dissertation Abstracts, 29(8), 2807 (1969),