

## VDE-ITG-Committee 5.4 "Communication Cable Networks" Sub-Committee 5.4.1 "Polymer Optical Fibers"

Information bulletin, version IX (March 2004)

Chairmen of 5.4.1: Prof. Dr.-Ing. O. Ziemann (POF-AC, Univ. of Applied Sciences Nürnberg)  
 ITG: Information Technology Society  
 VDE: Association of German Electrical Engineers

### AIMS

The purpose of VDE-ITG-SC 5.4.1 is to contribute to the scientific and technical progress in the field of polymer optical fibers and to promote their practical applications. In first place for Germany but also for interested partners from other European countries, the sub-committee provides a forum for discussion of the latest research results, new developments of technology, outstanding system implementations and applications.

### HISTORY

The foundation of VDE-ITG-SC 5.4.1 "Polymer Optical Fibers" took place on January 16, 1997 in Berlin during a meeting of interested people at the Federal Institute of Materials Research and Testing (BAM). Representatives from telecommunication industry, cable and components manufacturers, automotive industry, manufacturers of measuring and testing equipment, mechanical engineering industry, research institutes and universities were belonging to the foundation members.

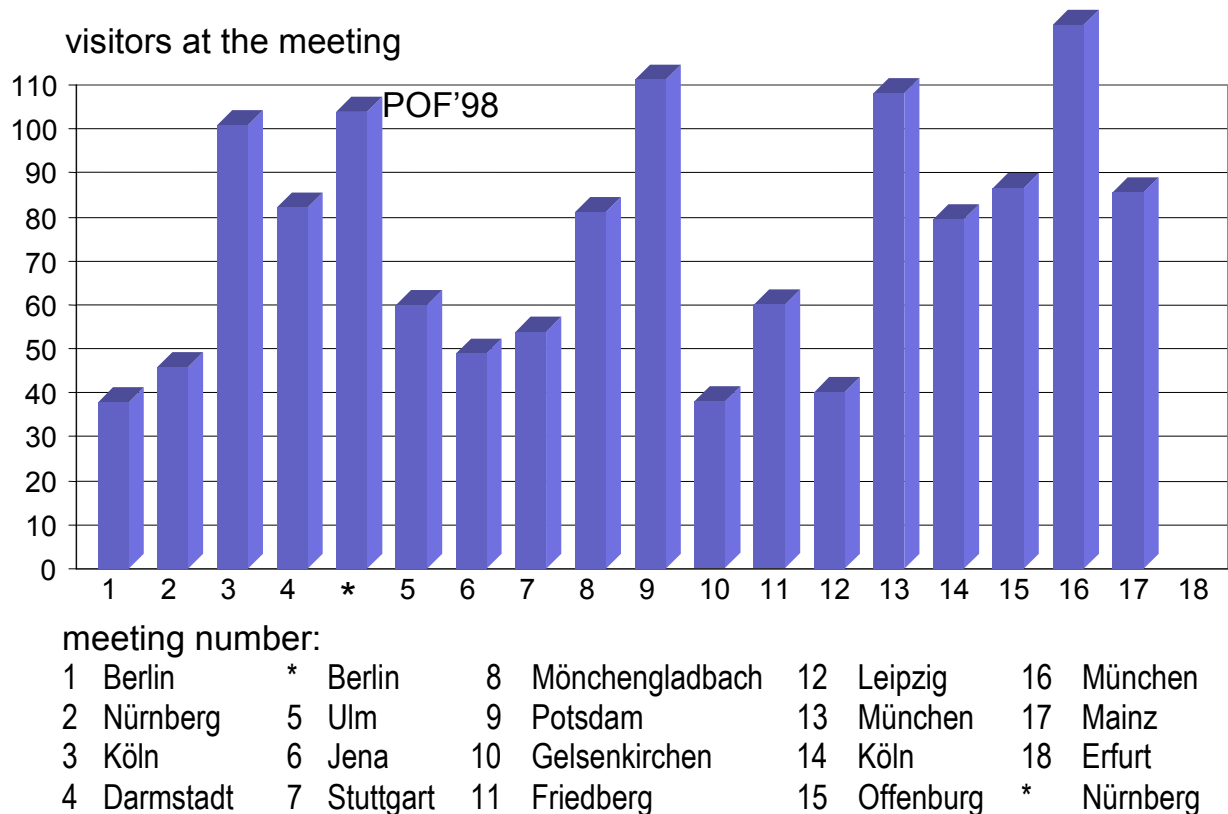
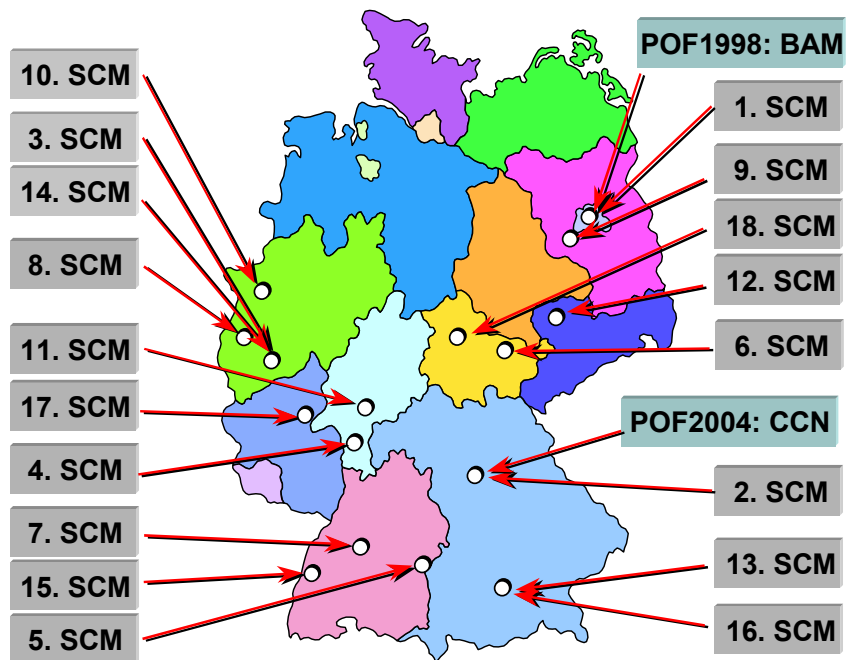


Fig. 1: Visitors at the recent sub committee meetings



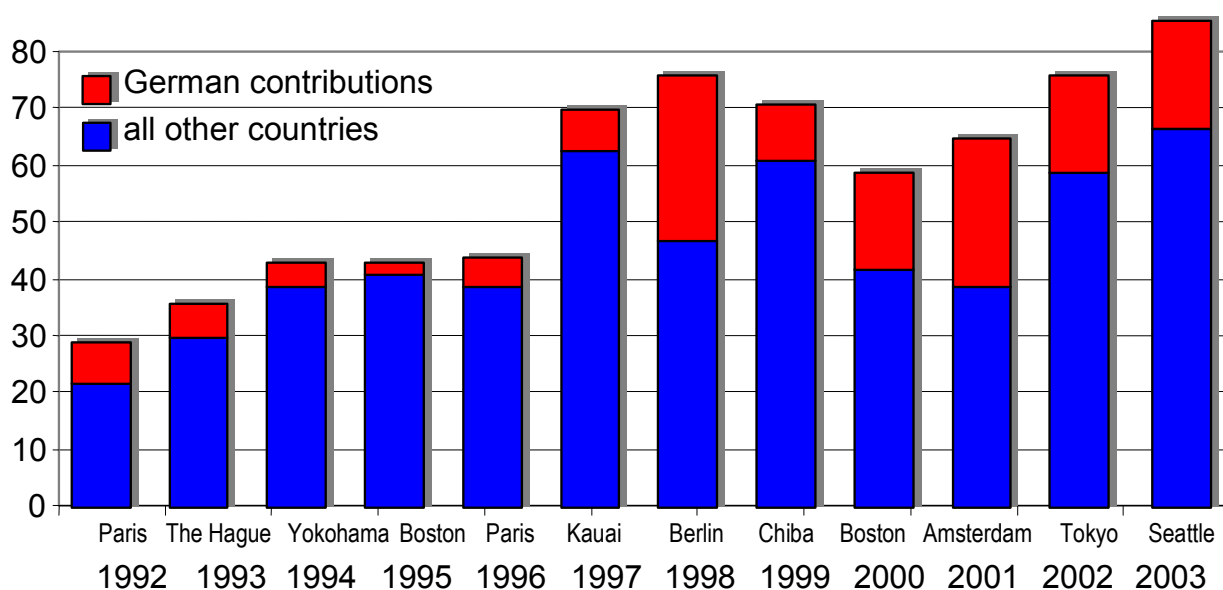
**Fig. 2:** Location of sub committee meetings

### Next highlights

The next meeting of the sub committee will be held in Erfurt at March 9<sup>th</sup>. The main topic will be: „Active components and mounting methods for POF systems“  
The 13<sup>th</sup> International POF Conference

The high numbers of visitors show the increasing interest for Polymer Fibers in Germany. Inside Europe, Germany has most of the research activities related to POF. This is indicated also by the participation at the International Conferences “Plastic Optical Fibers & Applications”. In 1998, 2000 and 2001, Germany was the country with the highest number of contributions. In Tokyo 2002 and Seattle 2003, Japan and Germany are nearly equally represented.

### Internationale POF conferences



**Fig. 3:** German participation at POF conferences

- The POF1998 was held in Germany (BAM Berlin) with participation of the ITG sub committee between Oct. 5<sup>th</sup> and 8<sup>th</sup>. The number of contributions from Germany are 23. Prof. Y. Koike was the chairman of the conference. POF1999 was held from July 14<sup>th</sup> to 16<sup>th</sup> in Chiba (Japan). Germany was the second active country (10 contributions) behind Japan (30 contributions).
- Boston was the place of the POF 2000. From 59 contributions in total, 17 papers and posters were from Germany.
- In the Amsterdam conference POF 2001 from Sept. 27<sup>th</sup> to 30<sup>th</sup>, the German participation was 23 from 70 contributions.
- At the POF 2002 in Tokyo, Germany was represented by 17 from 76 papers and posters.
- Contribution to the POF'2003 are: Japan: 21, Germany: 19 and the USA: 17. In total the number of 87 papers, tutorials and posters are the highest ever.

### Information by the Internet

The general information about the sub committee work will be given by our internet presentation. Martin Bloos (POF-AC) is responsible for the web presentation. For participants without web access, the use of Fax is recommended.

**Internet home page: <http://www.pofac.de>**

### Sub committee organization

The organization between the meetings is made by the host of the next event. In the case of necessary expenses, the cost will be distributed between the visitors (the first 18 meetings have been without fees for the visitors). The list of persons interested is managed by the committee chairmen and will be used exclusively for sub committee purposes.

### Dates

There are typically two meetings per year. Additionally, there are annual international POF conferences and meetings with other international groups on demand. The sub committee meeting will be held in German language generally. Of course, foreign guests have the option for English presentations. Invitations will be sent by e-mail from the POF-AC. Registrations are not required, but they are welcome for better meeting preparation (confirmations of registrations are not foreseen).

### Literature

German and English literature according POF:

- O. Ziemann: "Grundlagen und Anwendungen der optischen Polymerfaser", Der Fernmeldeingenieur 11,12/1996, Verlag für Wissenschaft und Leben, Georg Heidecker GmbH Erlangen (PF 3566, 91023 Erlangen), ISSN 0015-010X
- W. Daum, J. Krauser, P. E. Zamzow: "POF - Optische Polymerfasern für die Datenkommunikation", Springer, Berlin 2001
- W. Daum, J. Krauser, P. E. Zamzow: "POF - Polymer Optical Fibers for Data Communication", Springer, Berlin 2002
- Club des Fibres Optiques Plastiques (CFOP) France: „Plastic Optical Fibres - Practical Applications“, edited by J. Marcou, John Wiley & Sons, Masson, 1997
- A. Weinert: „Kunststofflichtwellenleiter“, Publicis MCD Verlag, Erlangen, München, 1998
- A. Weinert: "Plastic Optical Fibers", Publicis MCD Verlag, Erlangen, München, 1999

For more information please contact:

Prof. Dr.-Ing. Olaf Ziemann, POF-AC Nürnberg  
Univ. of Appl. Sciences Nürnberg  
Wassertorstr. 10, D-90489 Nürnberg /Germany  
phone/Fax.: +49 911 5880/1060 /5060  
e-mail: olaf.ziemann@pofac.fh-nuernberg.de

or:

Reg.-Dir. Dr.-Ing. Werner Daum, Bundesanstalt für Materialforschung und -  
prüfung (Federal Institute for Material Research and Testing)  
Unter den Eichen 87, D-12200 Berlin /Germany  
Tel./Fax.: (030) 8104-1910; -1917  
e-mail: werner.daum@bam.de

or:

Prof. Dr. Hans Poisel, POF-AC Nürnberg  
Univ. of Appl. Sciences Nürnberg  
Wassertorstr. 10, D-90489 Nürnberg /Germany  
phone/Fax.: +49 0911 5880-1189/-5070  
e-mail: hans.poisel@pofac.fh-nuernberg.de

## Meetings

The first 17 meetings of the SC took place in:

### **1. Meeting in Berlin (BAM: Federal Institute for Material Research and Testing), Jan. 16<sup>th</sup>, 1997**

- Foundation of the group, introduction of participants and definition of aims/procedures

### **2. Meeting in Nürnberg (University of Applied Sciences), May 12<sup>th</sup>, 1997**

- Creation of nine Working Groups with different topics
- Technical session with presentations of:
  - M. Langenwalter (Siemens AG): "Extract of a report to POF"
  - O. Ziemann (Deutsche Telekom AG): "The Full Service Access Network Action - about the future development of broadband customer access"
  - Representatives of Mitsubishi: „Present status of GI-POF“

### **3. Meeting in Cologne (Maternushaus), Dec. 04<sup>th</sup>, 1997 joint event with the annual meeting of the ITG Sub Department 5.4**

- Collocation with the annual meeting of the ITG Sub Department 5.4  
„Communication Cable Networks“
- Technical session with presentations of:
  - Dr. Schrader (Univ. Potsdam): "Properties of polymer compounds for optical fibers"
  - Prof. H. Poisel (FH Nürnberg): "Report to present developments at POF - Overview to the POF'97 conference Hawaii"
  - Prof. K.-F. Klein (FH Gießen/Friedberg): "Applications of fluorescent polymer fibers for sensors"
- Exhibition of POF experiments and products from 14 institutions

#### **4. Meeting in Darmstadt (Technology Center of Deutsche Telekom), April 28<sup>th</sup>, 1998**

- Technical session with presentations of:
  - O. Ziemann (Deutsche Telekom): „Proposal for the specification of a POF link with 100 m reach using 520 nm LED“
  - A. Bräuer (IOF), H.-J. Tessmann, O. Ziemann, W. Frank (Deutsche Telekom): „Introduction to a test method for the determination of life time of POF“
  - J. Krauser (FH Berlin), O. Ziemann: „Presentation of a round test for POF attenuation measurements in order to determine caution of errors using different POF length“
- Session for POF automotive applications with presentations of:
  - E. Zeeb (Daimler-Benz AG): „Application of POF at Daimler-Benz“
  - K. Wiese (AMP Deutschland GmbH): „Use of POF in the automobile industry“
  - R. Felgenhauer (Delphi Automotive Systems): „Lower Layer of MML / optical data transmission“
  - H. Schöpp (Becker GmbH): „From the car radio to an Audio-/Video communication system - integration and decentralization of functionality's today and tomorrow“
  - W. Homann (C&C Electronics): „Hierarchical network architectures“

#### **5. Meeting in Ulm (University of Ulm, Institute for Organization and Management of Information Systems together with DaimlerChrysler Ulm), Dec. 10<sup>th</sup>, 1998**

- Technical session with presentations:
  - K.-J. Ebeling (UNI Ulm): „VCSEL as sources for POF systems“
  - K. Arndt (Ratioplast): „Active and passive components for POF“
  - H. Lichotka (Rotero Lip): „Polymer optical components“
- general reports
  - O. Ziemann (TZD Telekom): „Reports to the POF'98 and the IWCS'98“
  - J. Krauser (TZD Telekom): „Introduction of results of the ring test POF attenuation and call for participation in the second phase“

#### **6. Meeting in Jena (Fraunhofer Institute of Optics and Fine mechanics), April 20<sup>th</sup>, 1999**

- Technical session with presentations:
  - W. Horak (Siemens AG): „Aspects of eye safety in POF systems“
  - P. Dannberg (IOF Jena): „Polymer optical components with Abformtechnik“
  - T. Engst (UNI Ulm): „Practical experiences with POF transceivers“
  - O. Ziemann (DT Berlin): „Theoretical transmission model for POF - results of a diploma theses work“

#### **7. Meeting in Stuttgart (Lapp Kabel GmbH), Sept. 16<sup>th</sup>, 1999**

- Technical session with presentations:
  - Dr. H. Nestle, H. Euler, M. Spurmann: „Industrial requirements for cable and lines“ - mechanical, thermal and chemical stress, EMC and shielding, Desina-compatible Hybrid-cables (4xCu, 2xPOF)“
  - Dr. H. Nestle, H. Euler, M. Spurmann: „Test and evaluation of cables (including hybrid cables)“
- Visit of test setups
- Short papers
  - O. Ziemann (T-Nova): „report of the POF 1999, ECOC 1999 and POF World 1999“
  - H. Poisel (FH Nürnberg): „the new POF-AC in Nürnberg“

- K.-F. Klein (FH Friedberg): “report Polymer conference New Orleans”
- W. Daum (BAM): “outlook to the POF 2000/ POF 2001, European activities”
- K.-F. Klein (FH Friedberg): “new Ideas for POF measurement techniques”
- F. Mederer (UNI Ulm): “Experiments with GI-POF”
- O. Ziemann (T-Nova): “Market development for building networks”

## **8. Meeting in Mönchengladbach (Alcatel) at March 9<sup>th</sup>, 2000**

- Welcome by Dr. Gumbel (CEO Alcatel Cable)
- Presentations in the technical session:
  - H. Steinberg, P. E. Zamzow (Alcatel), O. Ziemann, L. Giehmann (Telekom): „GBit/s-Transmission over SI-POF”
  - S. Schrader (UNI Potsdam): “Materials for Polymer Optical Fibers”
  - J. Pischel (Corning Cable Systems): „The Calibration laboratory in Neustadt/Coburg”
  - Bruland (Harting): „connector mounting at POF for automotive applications”
  - F. Bach (FCI): “Hierarchic bus networks – Multiplex illumination control”
  - E. Thiel (Ratioplast): „The optical clamp“
- Technical presentations
  - Bruland: Demonstration of automatic connector mounting
  - Alcatel: Visit of the glass fiber production
  - FCI: Demonstration of a C-class Mercedes with POF-Bus
- Questions form action inside the sub committee

## **9. Meeting in Postdam (University) at October 19<sup>th</sup>, 2000**

- Welcome by the vice president of the UNI Potsdam, Prof. J. Kurths
- Technical presentations:
  - Rupert Maier (Hamamatsu Photonics Deutschland GmbH) : „LED's/Photo-IC's for 50 and 156 Mb/s POF data communication from Hamamatsu“
  - S. Schrader, D. Neher (UNI Potsdam): „Organic LED“
  - N. Schunk: „Status of the POF use for IEEE1394“
  - S. G. Pofperl, T. S. Schaal, S. M. Seiffert, E. Zeeb (DaimlerCrysler): „Mode excitation in standard 1 mm Polymer Fibres“
  - B. Mann (LBM Fasertechnik): „Fiber optics in building lighting; market development – manufacturer overview – market penetration; optical basics for projectors and fibers; comparison of glass and POF“
  - B. Mann (LBM Fasertechnik): „Application examples from realized projects; indoor and outdoor fur side light and end light“
  - O. Ziemann/P. E. Zamzow: „Report to the POF 2000 and POF World“
  - J. Brendel (Luciol Instruments): „OTDR measurement with high length resolution for the characterization of POF links and cables“
  - K. Panzer (Infineon): „Status of components for Byteflight and MOST“
- Special Event: Presentation of Masaki Naritomi, Asahi Glass: “GI-POF Lucina – status of the development”
- Poster presentations by:
  - Prof. Klein (FH Gießen/Friedberg)
  - Prof. Poisel (FH Nürnberg, POF-AC)
  - O. Ziemann (T-Nova GmbH)
  - Prof. Daum (BAM)
  - K. Schmieder (TU Dresden)

## **10. Meeting in Gelsenkirchen (Univ. of Applied Sciences) at May 29<sup>th</sup>, 2001**

- Welcome by the Univ. of Applied Sciences Gelsenkirchen
- Technical presentations:
  - Hans Poisel (POF-AC): "End face preparation of POF - Report to the actual development of POF cutting tools"
  - Martin Pollakowski (FH Gelsenkirchen): "Requirements to POF transmission lines for the transport of DSL signals - current development of DSL in Germany"
- Short presentations:
  - O. Ziemann, W. Daum: "Report of the Standardization activities in Germany"
  - About the work of the DKE
  - Report to the work of the FoTON project
  - POF activities of the COST 206 group

## **11. Meeting in Friedberg (Univ. of Appl. Sciences Gießen/Friedberg) at Sept. 29<sup>th</sup>, 2001**

- Welcome by the vice president of the University of Applied Sciences Gießen/Friedberg: Prof. Vogel
- Technical presentations:
  - Dr. Schulze (TransMIT GmbH) : „Technology transfer in Mittelhessen“
  - H. Kragl (DieMount): „pigtailed LED transmitter“
  - C. Meisser (Komax): „Half and Full automatic POF confection“
  - C. Meisser (Komax): „POF in the Automobile“
  - A. Weinert (FO Systems): „POF cable for the automation technique“
  - O. Ziemann (POF-AC Nürnberg): „Report to the POF 2001 / ECOC2001“
  - K.-F. Klein (FH Friedberg): „Photonic Crystal Fibers“
  - H. Poisel (POF-AC Nürnberg): „International opening of the POF-AC“
  - B. Lohmüller (Hamamatsu): „Far field and near field measurements with the Hamamatsu setup“
  - R. Maier (Hamamatsu): „Transmitter and receiver components for POF“
- Laboratory visit with Prof. Klein
- Poster presentation of the POF-2001 contributions
  - O. Ziemann (POF-AC Nürnberg), „100 m Cut-Back-measurements“
  - O. Ziemann (POF-AC Nürnberg), „FF and bandwidth measurements on POF“
  - O. Ziemann (POF-AC Nürnberg), „Video transmission over POF“
  - K.-F. Klein (FH Gießen/Friedberg): „Mode dependent loss in GI-POF“
  - U. Döllinger, A. Dröge, O. Ziemann, J. Krauthan: „Attenuation measurements on POF“
- Exhibition:
  - Hamamatsu Germany
  - Ratioplast/Nichimen
  - WEZAG
  - Klein: „Presentation of a WDM link together with FhG Erlangen/Nürnberg“

## **12. Meeting at the Univ. of Applied Sciences (Deutsche Telekom) Leipzig at May 24<sup>th</sup>**

- Welcome by the Prorektor of the Univ. of Appl. Sciences Leipzig, Prof. Detlef Schlayer
- Technical presentations:
  - W. Daum (BAM Berlin): "Preparation of the POF2002 in Japan"
  - E. Thiel (Ratioplast): "LWL - hybrid connectors"
  - B. Lohmüller (Hamamatsu): „Introduction of POF measurement setups by Hamamatsu“
  - A. Bachmann (POF-AC Nürnberg): „Experiences with the near and far field measurement system LEPAS“

- O. Ziemann (POF-AC Nürnberg): „To the future work of the VDE/VDI working group Testing of Polymer Fibers“
- Discussion of future methods of POF bandwidth measurements
- Technical presentations, session II
  - V. Appelt, J. Vinogradov, O. Ziemann (POF-AC Nürnberg): „FEXT compensation in POF-WDM systems“
  - C.-A. Bunge (TU Berlin): „The use of GI fibers in Gbps-LAN-connections“
  - L. Jankowski (BAM Berlin): „CCD - camera Calibration for POF - measurement“
  - H. Kragl (DieMount GmbH): „Introduction of new LED for POF“

### 13. Meeting at BMW in Munich at July 07<sup>th</sup>, 2002

- Welcome by BMW
  - R. Albiez: „Comments to the future of on board networks“
- Technical presentations:
  - O. Ziemann (POF-AC Nürnberg), K.-F. Klein (FH Gießen/Friedberg): „Overview to potential of POF, new possibilities of industrial use“
  - K. Herrmann (G&G Österreich): „Construction/coatings and properties of POF“
  - C. Meisser (Komax): „Fully automation for cable manufacturing with automated measurement and testing“
  - F. Behrens (TSK): „Automatic attenuation measurement on POF cables“
  - A. Engel (Tyco): „Basics of optical fiber processing, crimping, ultrasonic, laser processing, process control, documentation“
  - L. Bauer (Tyco): „Basics of optical fiber processing: process technique and processing modules“
  - R. Jetter (Tyco), Herr Fahrnbauer (BMW): „Interface geometries on POF - housings/ collar connections/ ferrules - design, tolerances, latch“
  - A. Engel (Tyco): „Optical connections with MOST - power budget“
  - H. Hurth (Infineon): „Optocouplers (Diodes) for optical waveguides“
  - V. Trucks (S-Y Systems Technologies Europe GmbH): „Connector mounting of the wiring harness with optical fibers - experiences of a serial manufacturer - production lines, new facts due to optical fibers“
  - Herr Gumpinger (BMW): „Customer services: Handling the new technologies - hand tools - devices for the field use“
  - R. Albiez, L. Hochmuth (BMW): „Onbord networks with optical fibers for cars - requirements, general experiences - onbord network design - present status and outlook“
  - R. Mandausch (BMW): „Process chain wiring harness/optical fibers - from the development to the scrap of the car“
  - Herr Leonhart (BMW): „Quality requirements to the optical fiber, repair/extra work“
  - Herr Thiel (BMW): „Introduction of the 7-series BMW (MOST) with iDrive“
- Exhibition:
  - Tyco: Module for crimping the brass ferrule on the fiber, module end face preparation, processing tools (hand tools), housing options for optical fibers (MOST)
  - S-Y Systems Technologies Europe GmbH: on board network of the 7-series BMW (car specific designed)
  - TSK: hand measurement tools (Attenuation, fiber position in the connector)
  - BMW: Documentation of the on board network (3D), car for demonstration 7-series
  - Hamamatsu: Far field measurement on POF and GOF for determination of the coupling efficiency at 650 nm on cables up to 10 m

## 14. meeting in Colonge at Dec. 10<sup>th</sup> 2002 (Maternushaus Colonge, colocated with the ITG sub department 5.4 "Communication cable networks" workshop)

- G. Müllritter (HouseCom GmbH): "The main network for the home"
- G. Widawski, P. E. Zamzow (Nexans): "Will plastic optical fibers soon be found in residential networks and company LANs?"
- E. Thiel, K. Arndt (Ratioplast): "Optical fibers - Applications with Polymer Optical Fibers in automation"
- A. Weinert, T. F. Schmidt (FO-Systems, Leoni): "POF applications in automation"
- S. Junger, W. Tschekalinskij, N. Weber (Fraunhofer Institut für Integrierte Schaltungen Nürnberg): "Wavelength division multiplex on POF and PCF"
- W. Daum, M. Scholl (BAM Berlin, VDI Düsseldorf): "Standardized measurement methods for POF - status of the VDI/VDE - working group activities"
- O. Ziemann, C.-A. Bunge (POF-AC Nürnberg): "Report on POF 2002 and POF-World"
- S. Feistner (POF-AC Nürnberg): "Think POF - Ideas around the Polymer Optical Fiber"
- J. Faller: "Digital TV over digital home networks"

## 15. Treffen am 25./26.03.2003 an der Fachhochschule Offenburg

- O. Ziemann, W. Lieber: Welcome, general remarks
- Technical presentations Session I: "Alternative fibers and systems"
  - H. P. Huber (DaimlerChrysler AG): "Optical car networks with 200 µm - PCS fibers"
  - O. Ziemann, J. Vinogradov (POF-AC Nürnberg): "High bit rate data transmission on Standard and high temperature POF"
  - G. Zeidler: "Elastomere Optical Fibers (EOF)"
  - M. Stach (UNI Ulm): "Large and small signal transmission over POF and GOF at 650 nm and 850 nm"
- Technical presentations Session II: "Industrial Ethernet over POF"
  - G. Hörcher (Fraunhofer Technology Engineering Group): "Development related normation for industrial data cabling"
  - H. Kragl (DieMount): "Green transmitter diodes for 125 Mbit/s data transmission on PMMA-POF"
  - O. Ziemann (POF-AC): "Power budget for 100 m POF links"
- Technical presentations Session III: "Properties of optical fibers"
  - W. Daum (BAM): "Reliability of glass fibers"
  - C.-A. Bunge (POF-AC Nürnberg), W. Lieber (FH Offenburg): "Bandwidth limits of 50/62,5 µm multimode fibers"
  - J. Warrelmann, R. Schnell (Schott): "GF bundles for data communication"
  - G. Schötz (Heraeus), K.-F. Klein (FH Gießen/ Friedberg): "Silica glass large core fibers"
  - I. Freese, T. Klotzbücher, U. Schwab (IMM Mainz): "Waveguide components for POF/PCF"
  - O. Ziemann (POF-AC Nürnberg): "Active and passive networks - comparison and realization with POF"
- Technical presentations Session IV:
  - H. Poisel, O. Ziemann, M. Luber, M. Bloos (POF-AC, Nürnberg), E. Baur (Infineon Regensburg): "New fibers for data communication and illumination - developments and properties"
- O. Ziemann: Evaluation of the discussion, general business of the sub committee work

## 16. Meeting in Munich (Messe) at June, 25<sup>th</sup> 2003

- O. Ziemann (POF-AC Nürnberg) Begrüßung, Allgemeines
- Y. Koike (Keio Univ., Japan) „The Giga-Island Project“, eingeladener Beitrag
- Session I:
  - M. Bloos (POF-AC Nürnberg), H. Kragl (DieMount GmbH): „Stand zu Industrial Ethernet mit Optischen Polymerfasern“
  - O. Ziemann, H. Poisel (POF-AC Nürnberg): „Entwicklung der High-T-POF „
- Session II: POF-Sender und Empfänger
  - H. Schweizer, F. Scholz, T. Ballmann, R. Roßbach (UNI Stuttgart): „Rote VCSEL für hohe Temperaturen und hohe Leistungen“
  - J. Lambkin (FireComms): „Green LED for POF data communication“, eingeladener Beitrag
  - A. Haack (Delphi): „MOST direct header“
  - E. Baur, J. Wittl, T. Killer, H. Hurt (Infineon Techn.): „POF Transceiver - New Concepts“
  - B. Schneider (ULM-photonics): „VCSEL Technologie - die Chance kostengünstiger Lichtquellen zur Kommunikation“
  - A. Hafner, R. Maier (Hamamatsu): „Transceiver für Optische Polymerfasern“
  - A. Knigge, M. Zorn, M. Weyers, G. Tränkle (FBH Berlin): „FBHs 650 nm-VCSEL: Basis für POF-Sender“
- Besichtigung der Exponate
- Session III: „POF-Meßtechnik und neue Fasern“
  - B. Lohmüller (Hamamatsu): „Messungen der Bandbreite von POF mit den optischen Sampling-Oszilloskop“
  - J. P. Clarkin (Polymicro): „Hard Clad Silica Fibers for Automotive Applications“
  - K.-F. Klein (FH Friedberg): „Marktverfügbarkeit und Eigenschaften dicker Glasfasern“
  - J. Brendel (Luciol, Schweiz): „OTDR für Multimodefasern“
- Session IV: Allgemeines
  - P. Polishuk (IGI Boston, USA): „The Need for an International Trade Organization for POF -POFTO Status“, eingeladener Beitrag
  - O. Ziemann (POF-AC Nürnberg): „Zur weiteren Arbeit der ITG-Fachgruppe 5.4.1 Optische Polymerfasern“
- Posterausstellung:
  - POF-AC Nürnberg
  - Fraunhoferinstitut Zuverlässigkeit und Mikromechatronikzentrum (MMZ)

## 17. Meeting in Mainz (IMM), Nov. 5<sup>th</sup>, 2003

- Olaf Ziemann (POF-AC Nürnberg): „Opening, general remarks to the committee work“
- technical presentations:
  - Ulrich Teubner, Stefan Kurze (IMM Mainz): „Das IMM und die Abteilung Optik“
  - Ines Frese, Ulrich Teubner (IMM Mainz), Juri Vinogradov (POF-AC): „PCS-basierte Transceiver für Datenraten >2 Gbps“
  - Thomas Klotzbücher, Thorsten Braune, Dalibor Dadic, Marc Sprzagala, Anne Koch, Ulrich Teubner (IMM Mainz): „Herstellung optischer 1×2 POF-Koppler mit Laser-LIGA“
  - Elke Thiele (STFI Chemnitz), Heinz Döring (Sensorikzentrum Mittweida): „Anwendung leuchtender Polymerfasern“
  - Olaf Ziemann, Hans Poisel (POF-AC Nürnberg): „POF-Demohaus-Nürnberg - eine Deutsche Geschichte“
- Besichtigung der Exponate
- Fachbeiträge zu:

- Lukasz Jankowski (BAM): „Alterung von Polymerlichtwellenleiter (POFs) - Modellierung der Lichtausbreitung“
- Anilkumar Appajaiah (BAM): „Climatic Aging of Polymer Optical Fibres (POF) - Chemical Investigations“
- Jochen Schlick, Andreas Weinert (FO-Systems): „Entwicklungsstand bei POF für Fast Ethernet“
- Martin Bloos, Olaf Ziemann (POF-AC Nürnberg): „Stand der Aktivitäten in der Arbeitsgruppe Ethernet über POF“
- Ewald Frank (Telegärtner), Martin Roßbach (Nexans): „GI-POF für den Einsatz in Gigabit-Ethernet-Anwendungen“
- Ilka Ziemann, Olaf Ziemann, Hans Poisel (POF-AC Nürnberg): „Kostenbetrachtungen zur Herstellung verschiedener Fasern“
- R. Knoll (Ing.-Büro): „Hybridsteckverbinder mit POF: - Trends, Einsatzgebiete (Beispiele), Innovationsoptionen“
- Diskussion zu Anwendungen der POF in der Industrie
- Olaf Ziemann, Hans Poisel (POF-AC Nürnberg): „Bericht zur POF 2003 in Seattle“
- Diskussion zur weiteren Arbeit der FG, Ankündigung POF 2004
- Besichtigung des IMM

### **18. meeting in Erfurt (DieMount GmbH) at March 9<sup>th</sup>**

main topic: „Active components and mounting methods for POF systems“

Information for the meeting; please find at the web side:

[www.pofac.de](http://www.pofac.de)