

List of Other Research Papers Published Overseas

(From March 2022 to May 2023)

[Journal of Lightwave Technology] 2022.3, Volume: 40, Issue: 5, pp 1560-1566, 2022

Optical-Fiber Cable Employing 200 μ m-Coated Four-Core Multicore Fibers

Y. Sasaki, R. Fukumoto, K. Takenaga,
S. Shimizu, and K. Aikawa
Fujikura Ltd.

[Journal of Lightwave Technology] 2022.3, Volume 40, No.5 pp. 1552-1559, 2022

1,728-Fiber Cable with 12-Fiber Ribbons Comprising 160- μ m Coating Fiber with 80- μ m Cladding

S.Matsuo, K. Yahashiro, Y.Tsujimoto,
M. Miyata, A. Murata, T. Ishikawa,
T. Nakajima and K. Osato
Fujikura Ltd.

[IEEE Transactions on Applied Superconductivity] 2022.6, Volume 32, Issue 4, 4700205, 2022

AC loss measurements in an HTS coil wound using two-ply bundle conductor

K.Kajikawa,¹ Y.Fujiwara,¹ M.Miezaki,¹
S.Awaji,² A.Badel,² K.Takahashi,²
T.Okada,² T.Abe,² S.Fujita,³ S.Muto,³
K.Tsuchiya,³ Y.Iijima,³ M.Daibo³
1: Sanyo-Onoda City Univ.
2: Tohoku Univ.
3: Fujikura Ltd.

[27th OptoElectronics and Communications Conference/International Conference on Photonics in Switching and Computing 2022] 2022. 7, Japan

Ultra-high-density optical cable with advanced optical fibers

Shoichiro Matsuo, Kenji Yamashiro,
Yusuke Tsujimoto, Noriaki Yamashita,
Okimi Mukai, Yusuke Sasaki,
Katsuhiro Takenaga
Fujikura Ltd.

[INTERNATIONAL CONFERENCE ON MATERIALS DESIGN AND APPLICATIONS 2022] 2022.7, Online (Portugal)

Shrinkage and viscoelastic properties of UV-curable adhesives for precise positioning during curing process

A Takahashi,¹ Y Sekiguchi,² C Sato²
1: Fujikura Ltd
2: Tokyo Institute of Technology

[27th OptoElectronics and Communications Conference/International Conference on Photonics in Switching and Computing 2022] 2022.7, Japan

Multi-Core Fiber Link with Its Polarity Management in View
Takuya Oda, Osamu Kikuchi,
Katsuhiro Takenaga, and Kentaro Ichii
Fujikura Ltd.

[27th OptoElectronics and Communications Conference/International Conference on Photonics in Switching and Computing 2022] 2022.7, Japan

Estimating Crosstalk Between Diagonal Cores in Four-Core Fibers with Square Lattice Structure
Mayu Nakagawa, Masaki Ohzeki,
Yusuki Sasaki, Katsuhiro Takenaga, and
Kentaro Ichii
Fujikura Ltd.

[27th OptoElectronics and Communications Conference/International Conference on Photonics in Switching and Computing 2022] 2022.7, Japan

Investigation of Crosstalk Dependence on Cladding Diameter in Heterogeneous Multi-core Fibers by Considering Polarization-mode Coupling Effects
Gustavo Ocampo,¹ Yoshimichi Amma,²
Kunimasa Saitoh¹
1: Hokkaido Univ
2: Fujikura Ltd.

[27th OptoElectronics and Communications Conference/International Conference on Photonics in Switching and Computing 2022] 2022.7, Japan

Experimental Investigation of Nonlinear Signal Distortions in Multi-Span FMF Transmission
Georg Rademacher,¹
Benjamin J. Puttnam,¹ Ruben S. Luis,¹
Kazuhiko Aikawa,² Yoshinari Awaji,¹
and Hideaki Furukawa¹
1: NITC
2: Fujikura Ltd

[IEICE Electronics Express] 2022.8, 2022 Volume 19 Issue 18 Pages 20220379

Behavior of intercore crosstalk in square-layout uncoupled four-core fibers
Masanori Koshibala, Yasuo Kokubun,
Mayu Nakagawa, Masaki Ohzeki, and
Katsuhiro Takenaga
Fujikura Ltd.

[EFATS2022(2nd International Conference On Emissions Free Air Transport Through Superconductivity)] 2022.8, Online (UK)

Recent status of Fujikura's 2G HTS wire

Satoru Hanyu, Shinji Fujita,
Yutaka Adachi, Kazuomi Kakimoto,
Yasuhiro Iijima, Masanori Daibo
Fujikura Ltd.

[IEEE Transactions on Applied Superconductivity] 2022.9, Volume 32, Issue 6, 6601804, 2022

Low resistance soldered joint of REBCO coated conductors with novel Ag-dispersed structure

M. Ohsugi,¹ T. Yoshida,¹ Y. Iijima,¹
K. Kakimoto,¹ W. Hirata,¹ S. Fujita,¹
M. Daibo,¹ M. Furuse,² and Y. Yoshida²
1: Fujikura Ltd
2: AIST

[IEEE Transactions on Applied Superconductivity] 2022.9, Volume 32, Issue 6, 4701605, 2022

Quench protection study of a large scale REBCO magnet with additional copper tapes

Shogo Muto, Shinji Fujita, Koki Tsuchiya,
Tetsuo Takemoto, Masaaki Ishii,
Yasuhiro Iijima, Masanori Daibo
Fujikura Ltd.

[IEEE Transactions on Applied Superconductivity] 2022.9, Volume 32, Issue 6, 4005305, 2022

Quench study on REBCO coil for HTS sextupole magnet

X. Wang,¹ K. Tsuchiya,¹ S. Fujita,²
S. Muto,² K. Tsuchiya²
1: KEK
2: Fujikura Ltd.

[IEEE Transactions on Applied Superconductivity] 2022.9, Volume 32, Issue 6, 4603306, 2022

REBCO coil with robust behavior against local defects wound using two-tape bundle

Toru Abe,¹ Arnaud Badel,²
Tatsunori Okada,¹ Satoshi Awaji,¹
Shinji Fujita,³ Koki Tsuchiya,³
Yasuhiro Iijima,³ Masanori Daibo³
1: Tohoku University
2: G2ELab
3: Fujikura

[The European Conference on Optical Communication 2022] 2022.9, Switzerland

Novel Inter-core Crosstalk Measurement Method Using Loopback and Bidirectional OTDR Technique

Mayu Nakagawa, Masaki Ohzeki,
Katsuhiro Takenaga, and Kentaro Ichii
Fujikura Ltd.

[71ST ANNUAL IWCS CABLE & CONNECTIVITY INDUSTRY FORUM] 2022.10, USA

Development of 16F, low-loss, IEC-Grade B, MMC High-Density Optical Connector and Corresponding Cleaning tool

Kouta Yamanaka,¹ Shuhei Kanno,¹
Yuya Sakaguchi,¹ Satoshi Shida,¹
Yasuyuki Wada,¹ Takaaki Ishikawa,¹
Kansei Shindo,¹ Mike Hughes,²
Sharon Lutz,² Jeff Hendrick²
1: Fujikura Ltd., Japan
2: US Conec Ltd., USA

[71ST ANNUAL IWCS CABLE & CONNECTIVITY INDUSTRY FORUM] 2022.10, USA

Development of Best Practices and Guidelines for the Use of Expanded Beam Connectors in Data Center Applications

Alexander Cuno,¹ Davide Fortusini,¹
Riley Freeland,¹ Eric ten Have,¹
Martin Hempstead,¹ Peter uscany,¹
Douglas Wilson,² Teruhiko Omori,³
Faezeh Gholami,⁴ Richard Baca,⁵
Chad Ambrose,⁶ Tatiana erdinskikh,⁶
Tiger Ninomiya,⁶ Tyler Royer,⁶
Brian Teague,⁶ Masatoshi Imoo,⁷
Michael Kadar-Kallen⁸
1: Corning Inc.
2: FiberQA
3: Fujikura Ltd.
4: IBM Corp.
5: Microsoft
6: Senko Advanced Components
7: Sumitomo Electric Industries
8: US Conec Ltd.

[28th International Semiconductor Laser Conference] 2022. 10, Japan

Investigation of Failure Mode of High Power Wavelength Stabilized Laser Diode

Rintaro Morohashi, Yohei Kasai,
Masahiro Uchiyama,
Toshiyuki Kawakami, Yuji Yamagata
Fujikura Ltd.

[The 2022 IWCS Cable & Connectivity Industry Forum] 2022.10, Rhode Island, USA

6,912 Fiber Cable using 160µm Coating Optical fiber with 80µm Cladding

Yusuke Tsujimoto, Noriaki Yamashita,
Akira Murata, Takaaki Ishikawa,
Tatsuki Hatano, Kenji Yamashiro,
Shoichiro Matsuo, Noritaka Ukiya,
Akira Kori, and Ken Osato
Fujikura Ltd.

[The 2022 IWCS Cable & Connectivity Industry Forum] 2022.10, Rhode Island, USA

High-Density Optical Fiber Cable Using G.654E Fiber
Masatoshi Ohno, Hironori Sato,
Akira Namazue, Akira Murata,
Kenji Yamashiro, Katsubumi Nagasu,
Shoichiro Matsuo, Akira Kori, and
Ken Osato
Fujikura Ltd.

[ASC2022(Applied Superconductivity Conference)] 2022.11, USA

Recent status of 2G HTS wires with IBAD-PLD method at Fujikura

Satoru Hanyu, Shinji Fujita,
Yutaka Adachi, Kazuomi Kakimoto,
Yasuhiro Iijima, Masanori Daibo
Fujikura Ltd.

[International Microwave Symposium2023] 2022.12, USA

A Ka-Band 64-element Deployable Active Phased Array Transmitter on a Flexible Hetero Segmented Liquid Crystal Polymer for Small Satellites

Dongwon You,¹ Xi Fu¹, Hans Herdian,¹
Xiaolin Wang,¹ Yasto Narukiyo,¹
Ashbir Aviat Fadila,¹ Hojun Lee,¹
Michihiro Ide,¹ Sena Kato,¹ Zheng Li,¹
Yun Wang,¹ Daisuke Awaji,² Jian Pang,¹
Hiraku Sakamoto&, Kenichi Okada,¹
Atsushi Shirane¹

1: Tokyo Institute of Technology

2: Fujikura Ltd

[International Conference on Emerging Technologies for Communications 2022] 2022.12, Japan

Novel multi-core fiber link embracing its nature of polarity

Takuya Oda, Osamu Kikuchi,
Katsuhiro Takenaga, and Kentaro Ichii
Fujikura Ltd.

[The Optical Fiber Communication Conference and Exhibition 2023] 2023.3, USA

Bundle-type fan-in/fan-out device for 4-core multi-core fiber with high return loss

Kohei Ozaki, Yoshifumi Koike, and
Akito Nishimura
Fujikura Ltd.

[International Conference on Emerging Technologies for Communications 2022] 2022 . 12, Japan

Bundled type fan-in/fan-out device for 4-core multi-core fiber

Kohei Ozaki, Osamu Kikuchi,
Yoshifumi Koike, and Akito Nishimura
Fujikura Ltd.

[29th International Superconductivity Industry Summit (ISIS-29)] 2022.9, Online (UK)

Recent status of 2G HTS tapes at Fujikura

Masanori Daibo
Fujikura Ltd.

[The 35th International Symposium on Superconductivity (ISS2022)] 2022.11, Japan

REBCO Coated Conductor Development for Mass Productive Process Using IBAD and Hot-wall PLD

Y. Iijima, M. Ohsugi, K. Kakimoto,
S. Muto, W. Hirata, S. Fujita,
N. Nakamura, S. Hanyu, M. Daibo
Fujikura Ltd.

[The Optical Fiber Communication Conference and Exhibition 2023] 2023.3, USA

Characteristics of Over 600 km Long 4-core MCF Drawn from Single Preform

Shota Kajikawa, Tsubasa Saito,
Katsuhiro Takenaga, and Kentaro Ichii
Fujikura Ltd.

[Optical Fiber Communication Conference 2023] 2023.3, USA

Loss performance of field-deployed high-density 1152-channel link constructed with 4-core multicore fiber cable

Takuya Oda,¹ Shota Kajikawa,¹
Katsuhiro Takenaga,¹ Okimi Mukai,¹
Daiki Takeda,¹ Nikhil Angra,²
Usman Nasir,² Jongchul Park,³
Jing Zhang,³ Victor Kopp,³
Daniel Neugroschl,³ and Kentaro Ichii¹

1: Fujikura Ltd.

2: AFL Hyperscale

3: Chiral Photonics Inc.

[Optical Fiber Communication Conference 2023] 2023.3, USA

Relationship between polarization mode dispersion and crosstalk in heterogeneous multi-core fibers with different cladding diameters

Gustavo Ocampo,¹ Takanori Sato,¹
Takeshi Fujisawa,¹ Mayu Nakagawa,² and
Kunimasa Saitoh¹

1: Hokkaido University
2: Fujikura Ltd

[NVIDIA GTC 2023] 2023.3, Online (Japan)

Practical Use Case of Reinforcement Learning and Sim-to-Real Transfer for Manufacturing

Tatsuo Akiyama
Fujikura Ltd.

[Future Sensing Technologies 2023] 2023.4, Yokohama, Japan

High accuracy inference by an optical neural network implementation

Shun Miura, Mamoru Otake,
Hiroyuki Kusaka, Masahiro Kashiwagi,
Yuichiro Kunai, Takahiro Nambara,
Yumi Yamada
Fujikura Ltd.

[Journal of Lightwave Technology] 2023.4, in press

Novel Inter-core Crosstalk Measurement Method Using a Loopback and Bidirectional OTDR Technique

Mayu Nakagawa, Masaki Ohzeki,
Katsuhiro Takenaga, and Kentaro Ichii
Fujikura Ltd.

[Optics Express] 2023.4, Volume 31 Issue 4 pp5794-5800

Ultra-dense, 1152-core, broadband multicore fiber link deployed in metro network

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2: Fujikura Ltd.
3: AFL Hyperscale, Kent, WA 98032,
USA

[IEEE ACCESS 2023] 2023.5,

A Ka-Band Deployable Active Phased Array Transmitter Mounted on Small-Satellite Enabling Integration of Terrestrial and Non-Terrestrial Network

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Hans Herdian,² Xi Fu,² Hojun Li,²
Michihiro, Ide,² Carrel da Gomez,²
Zheng Li,² Jill Mayeda,² Daisuke Awaji,³
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ment, Electronic Technologies RD
center, Fujikura Ltd, Tokyo, Japan

4: Department of Mechanical Engineer-
ing, Tokyo Institute of Technology,
Tokyo, Japan

[International Radar Symposium 2023] 2023.5, Berlin, Germany

Fast Angular Processing for Sparse FMCW Radar Arrays with Non-uniform FFT

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T. Kawaguchi,² K. Kawajiri²

1: Fujikura Technology Europe GmbH,
2: Fujikura Ltd.