

ディスプレイ技術

ディスプレイ技術のイノベーションはIOPscienceとともに

IOPscienceは御社の革新的で重要な研究開発になくてはならないリソースです。イノベーションを促進し、競争力を維持し、利益を生み出すべき研究を見つけ出すことができるでしょう

ディスプレイ技術の主な内容:

- AR & VR
- センサー
- フレキシブル・エレクトロニクス
- 量子ドット
- 照明および固体照明
- 酸化物TFT
- マイクロLED
- 有機エレクトロニクスおよび有機EL
- グラフェンおよび2D材料
- AI
- ディスプレイ(OLED)
- QLED
- ウェアラブル・エレクトロニクス
- 液晶
- IGZO

ディスプレイコミュニティとの連携

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- **Sangyoon Lee**
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Panasonic, Associate Editor
Japanese Journal of Applied Physics
- **Chae Deok Lee**
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- **Robert J Visser**
Applied Materials, USA,
Industrial Advisory Board
Flexible and Printed Electronics
- **Nobuyuki Sugii**
Hitachi, Associate Editor
Japanese Journal of Applied Physics

商業用ディスプレイ特許のサポート

- **Toshiba** Light emitting devices having light coupling layers (US 9299881 B2)
- **Samsung Display and Kobe Steel** Thin film transistor, display substrate and method of manufacturing a thin film transistor (US 9070597 B2)
- **Hitachi** Method of initialising a hole spin in a quantum-dot device (EP20130153131)
- **AU Optronics** High speed and wide viewing angle liquid crystal displays (US7995181B2)
- **LG Display** Light control device for a transparent display and method of manufacturing the device (EP3153916A1)
- **LG Display** Organic light emitting diode display panel and method of fabricating the same (US9673417B2)
- **Samsung Display** Liquid crystal display device and method of manufacturing the same (US9659965 B2)
- **LG Display** Organic light emitting diode display panel and method of fabricating the same (US9673417B2)

ディスプレイ技術

世界でトップレベルのディスプレイ企業による研究を特集

- Room-temperature direct band-gap electroluminescence from germanium (111)-fin light-emitting diodes
Hitachi, Japan
- Highly luminescent silica-coated CdS/CdSe/CdS nanoparticles with strong chemical robustness and excellent thermal stability
LCD R&D Center, Samsung Display
- Application of PI-VM for management of the metal target plasma etching processes in OLED display manufacturing
Samsung Display
- Selective Metallization of amorphous-Indium-Gallium-Zinc-Oxide Thin-Film Transistor by Using Helium Plasma Treatment
LG Display
- Dry transfer of graphene to dielectrics and flexible substrates using polyimide as a transparent and stable intermediate layer
Corning

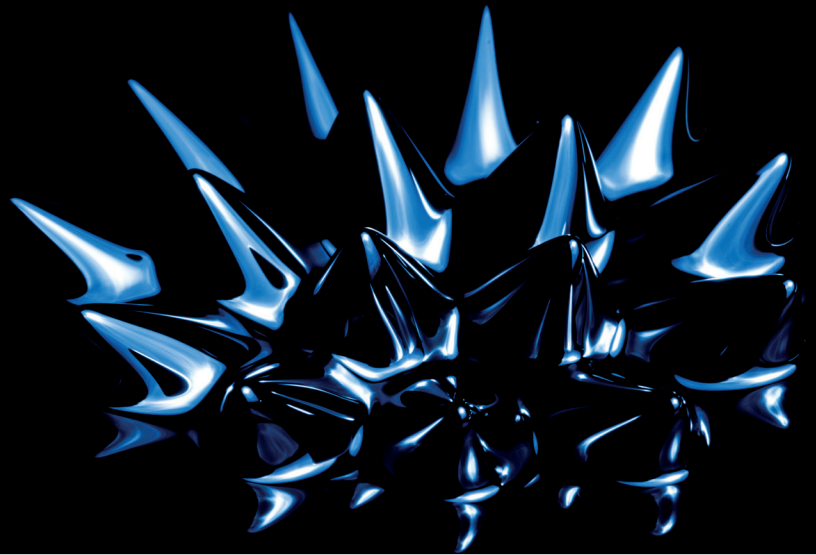
最近の特別号

- Optoelectronic Materials and Devices
Semiconductor Science and Technology™
- Active-Matrix Flatpanel Displays and Devices – TFT Technologies and FPD Materials
Japanese Journal of Applied Physics
- Imaging, Sensing, and Optical Memory
Japanese Journal of Applied Physics
- Organic optoelectronic and electronic materials and devices
Journal of Physics D: Applied Physics™

ディスプレイに関するホットな話題

- Characteristics of quantum-dot light-emitting diodes fabricated using a sputtered zinc tin oxide electron-transporting layer
- High efficiency quantum dot and organic LEDs with a back-cavity and a high index substrate
- High ambient contrast ratio OLED and QLED without a circular polarizer
- Display process compatible accurate graphene patterning for OLED applications
- Active control of plasmonic colors: emerging display technologies
- Fabrication and Characterization of a GaN-Based 320 × 256 Micro-LED Array
- Printable stretchable interconnects
- Low-power-consumption optical interconnect on silicon by transfer-printing for used in opto-isolators

世界トップクラスの革新的なディスプレイ企業が IOPscience を購読しています。IOPscience の購読をご検討の場合は iopcorporate@iop.org へお問い合わせください。無料のお試し購読をご利用いただけます。



材料科学

材料科学のイノベーションはIOPscienceとともに

2D材料の物性を改良したり、最先端のウェアラブル・プリンタブルエレクトロニクス、ナノ構造で世界を変えたり、バイオ技術で医療を変革させるためには、IOPscience は御社の研究になくてはならないリソースです。

進化し続ける多彩な材料科学ポートフォリオなど、IOPscience はあなたが業界の最先端に立ち続けるために必要な内容を提供します。

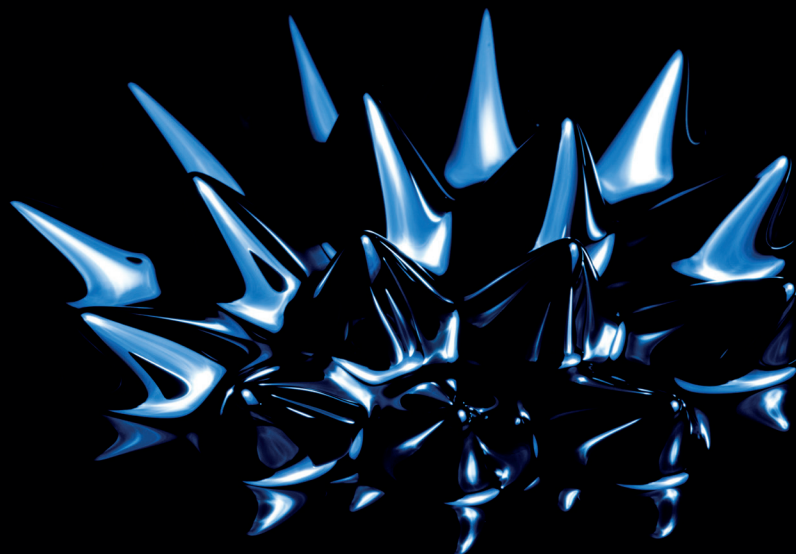
材質科学技術の主な内容:

- 生体材料
- ナノ材料
- メタマテリアルおよびクローキング
- コーティング
- 電子材料
- ナノ構造
- ヘテロ構造
- グラフェン
- フォトニクス材料
- スマート材料およびデバイス
- 多機能材料
- 量子材料
- 機能的合成物

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Editor, *Applied Physics Express* and Associate editor, *Japanese Journal of Applied Physics*
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Advisory panel, *Journal of Physics D: Applied Physics*[™]
- **Z Zhang**
Texas Instruments, USA
Advisory panel, *Journal of Physics D: Applied Physics*



世界でトップレベルの材料企業による研究を特集

- Dry transfer of graphene to dielectrics and flexible substrates using polyimide as a transparent and stable intermediate layer
Corning Inc, United States
- Electric field effect on the electronic structure of 2D Y2C electride
Samsung Advanced Institute of Technology, Korea
- Hydrodynamics of electrons in graphene
Raytheon BBN Technologies, United States
- Flexible n-type thermoelectric composite films with enhanced performance through interface engineering and post-treatment
Hyundai Motor Company, Korea
- Integrated nanomaterials for extreme thermal management: a perspective for aerospace applications
Northrop Grumman Corporation, United States

最近の特別号

- Multifunctional Nanomaterials
Nanotechnology
- Commercial Applications of Graphene and Components
2D Materials
- Ferroelectric Materials and Their Applications
Japanese Journal of Applied Physics
- New materials for nanophotonics
Journal of Optics™
- New Materials and Applications for Organic Electrolyte Gated Transistors
Flexible and Printed Electronics

材料科学に関するホットな話題

- Interface bonding in silicon oxide nanocontacts: interaction potentials and force measurements
- Chronic softening spinal cord stimulation arrays
- Absorption-enhanced imaging through scattering media using carbon black nano-particles: from visible to near infrared wavelengths
- Biomimetic hydrogels direct spinal progenitor cell differentiation and promote functional recovery after spinal cord injury
- Optical and thermal filtering nanoporous materials for sub-ambient radiative cooling
- Hot carrier dynamics in plasmonic transition metal nitrides
- Graphitic microstructure and performance of carbon fibre Li-ion structural battery electrodes
- From softening polymers to multimaterial based bioelectronic devices
- Fabrication methods and applications of microstructured gallium based liquid metal alloys

世界トップクラスの革新的な材料科学企業が IOPscience を購読しています。IOPscience の購読をご検討の場合は iopcorporate@iop.org へお問い合わせください。無料のお試し購読をご利用いただけます。

半導体

半導体技術のイノベーションはIOPscienceとともに

画期的なディスプレイ技術部品の供給や、太陽光発電技術の開発、最先端機器の製造、半導体材料の可能性の拡大のために、IOPscienceは御社の研究になくてはならないリソースです。

IOPscience は御社が半導体業界に革新や進化をもたらし、業界を導いていくために必要な内容を提供します。

半導体の主な内容:

- NANDフラッシュ
- シリコン
- 電界
- 薄膜
- GaN
- エッチング
- 走査型電子顕微鏡
- FinFET
- プラズマ
- エピタキシー
- DRAM
- 抵抗スイッチング
- メモリ
- グラフェン
- MEMS
- 量子回路
- CMOS
- ナノワイヤ
- 人工知能

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- **Kazuaki Kurihara**
Toshiba Memory Corporation
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Executive editorial board, *Surface Topography: Metrology and Properties*[™]
- **Franz Laermer**
Robert Bosch GmbH, Germany
Advisory board, *Journal of Micromechanics and Microengineering*[™]

半導体

世界でトップレベルの半導体企業による研究を特集

- Source/drain eSiGe engineering for FinFET technology
Globalfoundries Inc, United States
- A model for etching of three-dimensional high aspect ratio silicon structures in pulsed inductively coupled plasmas
Applied Materials Inc, United States
- Effect of charge trap layer thickness on the charge spreading behavior within a few seconds in 3D charge trap flash memory
SK Hynix Semiconductor Inc, Korea
- Universal core model for multiple-gate field-effect transistors with short channel and quantum mechanical effects
Qualcomm Technology Inc, United States
- Realize multiple hermetic chamber pressures for system-on-chip process by using the capping wafer with diverse cavity depths
Taiwan Semiconductor Manufacturing Company (TSMC), Taiwan

最近の特別号

- Nanofabrication: Principles, Techniques, and Devices
Journal of Micromechanics and Microengineering
- Quantum Photonics: Chips and Dots
Quantum Science and Technology™
- Superconducting Qubits
Quantum Science and Technology
- SiGe Materials, Devices and Technologies
Semiconductor Science and Technology
- Solid State Devices and Materials
Japanese Journal of Applied Physics
- 2D Semiconductors
Semiconductor Science and Technology

半導体に関するホットな話題

- Dramatic switching behavior in suspended MoS₂ field-effect transistors
- Review on the dynamics of semiconductor nanowire lasers
- Time-resolved structure analysis of piezoelectric crystals by X-ray diffraction under alternating electric field
- Angle-resolved polarized Raman scattering on relaxor ferroelectrics with intermediate random fields
- Vibrational spectroscopy of compound semiconductor nanocrystals
- Theoretical study of piezotronic metal–insulator–semiconductor tunnel devices

当社の専用ページはこちら iopscience.org/semiconductors

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生体医工学

生体医工学のイノベーションはIOPscienceとともに

生体医工学や生物物理学、医学物理学の研究開発においても、またはこれらの分野間の学際研究においても、IOPscience は御社の研究になくてはならないリソースです。

IOPscience には、御社の研究開発部門において創造力とイノベーションを引き出すコンテンツがあります。

生体医工学の主な内容:

- 放射線治療
- 医用画像
- 医療機器
- ナノメディシン
- 組織工学
- 神経科学
- 呼吸分析
- プラズマ医療
- 心臓血管モニタリング
- バイオプリンティング
- 神経技術
- 生体工学
- 医療バーチャル・リアリティ
- ロボット工学
- ウェアラブルデバイス
- 人工知能

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- **G Wolf**
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- **A Sitek**
IBM Watson Health, USA
International advisory board, *Physics in Medicine & Biology*

生体医工学

世界でトップレベルの生体医工学企業による研究を特集

- A novel phantom for characterization of dual energy imaging using an on-board imaging system
Varian Medical Systems, United States
- Real-time, image-based slice-to-volume registration for ultrasound-guided spinal intervention
Siemens Healthcare GmbH, Germany
- Modeling the interference between shear and longitudinal waves under high intensity focused ultrasound propagation in bone
Philips Research, Netherlands
- Continuous non-invasive determination of nocturnal blood pressure variation using photoplethysmographic pulse wave signals: comparison of pulse propagation time, pulse transit time and RR-interval
Roche Diabetes Care GmbH, Germany
- Addition of luminescence process in Monte Carlo simulation to precisely estimate the light emitted from water during proton and carbon-ion irradiation
Mitsubishi Electric Corp., Japan

最近の特別号

- Advances in Biomaterials for Orthopaedic Applications
Biomedical Materials™
- Bioinks
Biofabrication™
- Optical Imaging in Neuroscience
Journal of Neural Engineering
- Hyperspectral imaging in biomedical applications
Journal of Optics™
- Neurophotonics
Journal of Physics D: Applied Physics™
- Focus on Nanomedicine
Nanotechnology™

生体医工学のホットな話題

- Titanium nanostructures for biomedical applications
- Nanoparticles target early-stage breast cancer metastasis *in vivo*
- Fabrication of modular hyaluronan-PEG hydrogels to support 3D cultures of hepatocytes in a perfused liver-on-a-chip device
- A definition of bioinks and their distinction from biomaterial inks
- Biomaterials for corneal bioengineering
- The dynamics of hovering flight in hummingbirds, insects and bats with implications for aerial robotics
- Light-based 3D printing of hydrogels with high-resolution channels
- TIGRE: a MATLAB-GPU toolbox for CBCT image reconstruction
- Synchrotron microbeam radiotherapy in a commercially available treatment planning system

世界トップクラスの革新的な生体医学企業が IOPscience を購読しています。IOPscience の購読をご検討の場合は iopcorporate@iop.org へお問い合わせください。無料のお試し購読をご利用いただけます。

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