

# 講演セッションキーワード一覧

(2018年春期講演大会募集から適用)

| 大分類   | セッションキーワード   |
|---|--|
| 材料と社会<br>Materials and Society                                | 教育<br>Education  |
|   | 歴史<br>History  |
|   | 材料と社会<br>Materials and Society   |
|   | 環境<br>Environment  |
| 物性基礎<br>Materials Physics                                     | 水素関連物性・機能・プロセッシング<br>Hydrogen Related Properties, Functions and Processing   |
|   | イオン伝導・輸送現象<br>Ionic Conduction and Transport Phenomena                       |
|   | 磁気機能・磁気物性<br>Magnetic Functions and Properties                               |
|   | 電気伝導・熱伝導<br>Electrical Conduction and Heat Conduction                        |
|   | 電子・光物性<br>Electronic Properties and Optical Properties                       |
|   | 薄膜・多層膜・超格子物性<br>Properties of Thin Films, Multilayer Films and Superlattices |
|   | 微粒子・ナノ粒子物性<br>Properties of Fine and Nano Particles                          |
| 量子ビーム科学<br>Quantum Beam Science                               |  |
| 組織制御<br>Microstructure Control                                | 拡散・相変態<br>Diffusion and Phase Transformations                                |
|   | 再結晶・粒成長・集合組織<br>Recrystallization, Grain Growth and Texture                  |
|   | 熱力学・状態図・相平衡<br>Thermodynamics, Phase Diagrams and Phase Equilibria           |
|   | マルテンサイト・変位型相変態<br>Martensitic and Displacive Transformations                 |
| 力学特性<br>Mechanics of Materials                                | 強度・力学特性<br>Strength and Mechanical Properties of Materials                   |
|   | 高温変形・クリープ・超塑性<br>High Temperature Deformation, Creep and Superplasticity     |
|   | 格子欠陥・格子欠陥制御・プラストン<br>Lattice Defects, Defect Control and Plastons            |
|   | 疲労・破壊<br>Fatigue and Fracture  |
| 材料化学<br>Materials Chemistry                                   | 粒界・界面<br>Grain Boundaries and Interfaces                                     |
|   | 高温酸化・高温腐食<br>High Temperature Oxidation and Corrosion                        |
| 表面・界面<br>Surfaces and Interfaces                              | 腐食・防食<br>Corrosion and Protection  |
|   | 表面処理・表面改質・コーティング<br>Surface Treatments and Modification/Coatings             |
|   | 表面反応・分析<br>Surface and Interface Phenomena/Characterization                  |
|   | 摩擦・トライボロジー<br>Abrasion and Tribology   |
| 生体材料基礎・生体応答<br>Fundamentals of Biomaterials and Bio-responses | 触媒材料<br>Catalysts  |
|   | 細胞機能・組織再生<br>Cellular Functions and Tissue Regeneration                      |
|   | 構造生体機能化<br>Bio-functionalization: Structure                                  |
| 分析・評価<br>Analysis and Characterization                        | 表面生体機能化<br>Bio-functionalization: Surface and Interface                      |
|   | 分析・解析・評価・先端技術<br>Analysis/Characterization/Evaluation/Advanced Techniques    |
| 計算材料科学<br>Computational Materials Science                     | 計算材料科学・材料設計<br>Computational Materials Science and Materials Design          |
| 材料プロセッシング<br>Materials Processing                             | 環境・リサイクル技術<br>Environment and Recycling                                      |
|   | 凝固・結晶成長・鋳造<br>Solidification, Crystal Growth and Casting                     |
|   | 製造プロセス・省エネルギー技術<br>Manufacturing Processes and Energy Saving Technology      |
|   | 塑性変形・塑性加工<br>Plastic Deformation and Forming                                 |
|   | 非平衡プロセッシング<br>Non-Equilibrium Processing                                     |
|   | マイクロ波応用プロセッシング<br>Fundamentals and Applications of Microwave Processing      |
|   | 融体・高温物性プロセス<br>Molten Materials and High Temperature Properties Process      |
|   | 溶接・接合<br>Welding and Joining   |

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|---|--|
| エネルギー関連材料<br>Energy and Related Materials           | エネルギー・電池材料<br>Energy and Battery Materials   |
|   | 水素化物・水素貯蔵・透過材料<br>Hydrides/Hydrogen Storage and Hydrogen Permeation Materials          |
|   | センサー材料<br>Sensor Materials   |
|   | 熱電材料<br>Thermoelectric Materials   |
|   | ジェットエンジン・ガスタービン耐熱材料<br>Heat Resistant Materials for Jet Engines and Gas Turbines       |
| 磁性材料<br>Magnetic Materials                          | 蒸気発電耐熱材料<br>Heat Resistant Materials for Steam Powered Generators                      |
|   | 原子力材料<br>Nuclear Materials   |
|   | 磁気記録材料<br>Magnetic Recording Materials   |
|   | スピントロニクス・ナノ磁性材料<br>Spintronics Materials and Nanomagnetic Materials                    |
| 電気・電子材料<br>Electric/Electronic Materials            | ソフト磁性材料<br>Soft Magnetic Materials   |
|   | ハード磁性材料<br>Hard Magnetic Materials   |
|   | 太陽電池材料<br>Photovoltaic Materials   |
|   | 超伝導材料<br>Superconducting Materials   |
| 生体材料設計開発・臨床<br>Biomaterials Development and Clinics | 半導体材料<br>Semiconducting Materials  |
|   | 配線・実装・マイクロ接合材料<br>Interconnection, Packaging and Micro Joining Materials               |
|   | Cu・Cu合金<br>Copper and Its Alloys   |
|   | 生体・医療・福祉材料<br>Biomaterials, Medical Materials and Health Care Materials                |
| 基盤材料<br>Foundation Materials                        | Additive Manufacturing・テーラーメイド医療材料<br>Additive Manufacturing and Personalized Medicine |
|   | 生体安全性・有効性評価<br>Bio-safety Assessment and Validation                                    |
|   | 鉄鋼材料<br>Iron and Steel   |
|   | Al・Al合金<br>Aluminum and Its Alloys   |
|   | Mg・Mg合金<br>Magnesium and Its Alloys  |
|   | Ti・Ti合金<br>Titanium and Its Alloys   |
|   | 自動車用材料<br>Materials for Automobiles  |
|   | 航空機用材料<br>Materials for Aircraft   |
| 金属間化合物材料<br>Intermetallics                          |  |
| 萌芽・先進材料<br>Emerging and Advanced Materials          | 超微細粒材料(バルクナノメタル)<br>Ultrafine-Grained Materials (Bulk Nanometals)                      |
|   | 形状記憶材料<br>Shape Memory Materials   |
|   | スマート・インテリジェント材料<br>Smart and Intelligent Materials                                     |
|   | MEMS デバイス用材料<br>Materials for MEMS Devices   |
|   | セラミックス材料<br>Ceramics   |
|   | 粉末・焼結材料<br>Powder and Sintering Materials  |
|   | 複合材料<br>Composite Materials  |
|   | ポーラス材料<br>Porous Materials   |
| ナノ・萌芽材料<br>Nanomaterials and Emerging Materials     |  |
| 元素戦略<br>Elements Strategy                           | アモルファス・準結晶材料<br>Amorphous Materials and Quasicrystals                                  |
|   | 元素戦略・希少資源代替材料<br>Elements Strategy/Substitute Materials for Rare Resources             |
|   | レアメタル<br>Rare Metals   |