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Education：

2005.3.25 Ph.D (Chemistry), Department of Chemistry, Tohoku University
東北大学大学院理学研究科化学専攻　博士課程修了 博士（理学）[指導教員：川﨑雅司教授]

2002.3.26 M. Sc. of Engineering, Department of Innovative and Engineering Materials, Tokyo Institute of Technology
東京工業大学大学院総合理工学研究科物質科学創造専攻　修士課程修了 [指導教員：川﨑雅司教授]

2000.3 B. Sc. Department of Inorganic Materials, Tokyo Institute of Technology
東京工業大学工学部無機材料工学科修了

Research interests：

epitaxial thin film growth, molecular beam epitaxy, quantum transport, electric-field effect
oxide electronics, topological insulators,

Professional career：

2002.4～2005.3 日本学術振興会特別研究員（DC1）
2005.4～2006.3 東北大学金属材料研究所　超構造薄膜化学研究部門　博士研究員
2006.4～2007.3 日本学術振興会特別研究員（PD）
2007.4～2010.5 東北大学金属材料研究所　超構造薄膜化学研究部門　助教
2010.6～2012.8 東京大学大学院工学系研究科付属量子相エレクトロニクス研究センター　特任講師
2012.9～2013.3 東京大学大学院新領域創成科学研究科　物質系専攻　准教授
2013.4～　　現職

兼任
2008.10～2012.3 科学技術振興機構戦略的創造研究事業さきがけ　研究員
2012.10～2016.3 科学技術振興機構戦略的創造研究事業さきがけ　研究員
2013.4～2014.3 理化学研究所　創発物性科学研究センター強相関界面研究グループ　客員研究員
2014.4～　　理化学研究所　創発物性科学研究センター強相関界面研究グループ　客員主管研究員
2016.4～2017.9 科学技術振興機構　研究開発戦略センター(JST-CRDS)　特任フェロー

Awards：

I, JSAP Young Scientist Award for the Presentation of an Excellent Paper (2001)
I, 19th Advanced Technology Award, Nippon broadcasting system, inc. prize (2005)
I, 22th Inoue Research Award for Young Scientists (2005)
I, 28th JSAP Award for the Most Promising Young Scientist (2006)
I, 48th Harada young Researcher Award (2008)
I, 7th Condensed-Matter Science Prize (2012)
I, 18th JSPS Prize (2021)

List of Publication

2021

199) Formation of ilmenite-type single-crystalline $MgTiO_3$ thin films by pulsed-laser deposition
M. Negishi, K. Fujiwara, **A. Tsukazaki**
AIP Advances **11**, 125125 (2021).

198) Competing correlated states around the zero field Wigner crystallization transition of electrons in two-dimensions
J. Falson, I. Sodemann, B. Skinner, D. Tabrea, Y. Kozuka, **A. Tsukazaki**, M. Kawasaki, K. von Klitzing, J. H. Smet
Nature Materials, online publication Dec. 23rd (2021).

197) Quantum anomalous Hall effect with a permanent magnet defines a quantum resistance standard
Y. Okazaki, T. Oe, M. Kawamura, R. Yoshimi, S. Nakamura, S. Takada, M. Mogi, K. S. Takahashi, **A. Tsukazaki**, M. Kawasaki, Y. Tokura, N-H. Kaneko
Nature Physics, online publication Dec. 14th (2021).

196) Emergence of spin-orbit coupled ferromagnetic surface state derived from Zak phase in a nonmagnetic insulator FeSi
Y. Ohtsuka, N. Kanazawa, M. Hirayama, A. Matsui, T. Nomoto, R. Arita, T. Nakajima, T, Hanashima, V. Ukleev, H. Aoki, M. Mogi, K. Fujiwara, **A. Tsukazaki**, M. Ichikawa, M. Kawasaki, Y. Tokura
Science Advances **7**, eabj0498 (2021).

195) Tuning scalar spin chirality in ultrathin films of the kagome-lattice ferromagnet Fe_3Sn
K. Fujiwara, Y. Kato, T. Seki, K. Nomura, K. Takanashi, Y. Motome, **A. Tsukazaki**
Communications Materials **2**, 113 (2021).

194) Magneto-optical spectroscopy on Weyl nodes for anomalous and topological Hall effects in chiral MnGe
Y. Hayashi, Y. Okamura, N. Kanazawa, T. Yu, T. Koretsune, R. Arita, **A. Tsukazaki**, M. Ichikawa, M. Kawasaki, Y. Tokura, Y. Takahashi
Nature Communications **12**, 5974 (2021).

193) Nonreciprocal transport in a Rashba Ferromagnet, Delafossite $PdCoO_2$
J. H. Lee, T. Harada, F. Trier, L. Marcano, F. Godel, S. Valencia, **A. Tsukazaki**, M. Bibes
Nano Letters **21**, 20 (2021).

192) Three-dimensional sensing of the magnetic-field vector by a compact planar-type Hall device
J. Shiogai, K. Fujiwara, T. Nojima, **A. Tsukazaki**
Communications Materials **2**, 102 (2021).

191) Versatile electronic states epitaxial thin films of (Sn-Pb-In)Te: From topological crystalline insulator and polar semimetal to superconductor
R. Yoshimi, M. Masuko, N. Ogawa, M. Kawamura, **A. Tsukazaki**, K. S. Takahashi, M. Kawasaki, Y. Tokura
Physical Review Materials **5**, 094202 (2021).

190) Current-induced magnetization switching at charge-transferred interface between topological insulator $(Bi,Sb)_2Te_3$ and van der Waals ferromagnet Fe_3GeTe_2
R. Fujimura, R. Yoshimi, M. Mogi, **A. Tsukazaki**, M. Kawamura, K.S. Takahashi, M. Kawasaki, Y. Tokura
Applied Physics Letters **119**, 032402 (2021). Selected as a featured article.

189) Two-dimensionality of metallic surface conduction in $Co_3Sn_2S_2$ thin films
J. Ikeda, K. Fujiwara, J. Shiogai, T. Seki, K. Nomura, K. Takanashi, **A. Tsukazaki**
Communications Physics **4**, 117 (2021).

188) First-principles investigation of magnetic and transport properties in hole-doped Shandite compounds $Co_3In_xSn_{2-x}S_2$
Y. Yanagi, J. Ikeda, K. Fujiwara, K. Nomura, **A. Tsukazaki**, M-T. Suzuki
Physical Review B **103**, 205112 (2021).

187) Current-induced switching of proximity-induced ferromagnetic surface states in a topological insulator
M. Mogi, K. Yasuda, R. Fujimura, R. Yoshimi, N. Ogawa, **A. Tsukazaki**, M. Kawamura, K.S. Takahashi, M. Kawasaki, Y. Tokura
Nature Communications **12**, 1404 (2021).

186) Critical thickness for the emergence of Weyl features in $Co_3Sn_2S_2$ thin films
J. Ikeda, K. Fujiwara, J. Shiogai, T. Seki, K. Nomura, K. Takanashi, **A. Tsukazaki**

Communications Materials **2**, 18 (2021).

185) Robustness perpendicular magnetic anisotropy of $Co_3Sn_2S_2$ phase in sulfur deficient sputtered thin films
J. Shiogai, J. Ikeda, K. Fujiwara, T. Seki, K. Takanashi, **A. Tsukazaki**
Physical Review Materials **5**, 024403 (2021).

184) Determination of the phase coherence length of $PdCoO_2$ nanostructures by conductance fluctuation analysis
T. Harada, P. Bredol, H. Inoue, S. Ito, J. Mannhart, **A. Tsukazaki**
Physical Review B **103**, 045123 (2021).

183) Giant anomalous Hall effect from spin-chirality scattering in a chiral magnet
Y. Fujishiro, N. Kanazawa, R. Kurihara, H. Ishizuka, T. Hori, F. S. Yasin, X. Yu, **A. Tsukazaki**, M. Ichikawa, M. Kawasaki, N. Nagaosa, M. Tokunaga, Y. Tokura
Nature Communications **12**, 317 (2021).

2020

182) Single-domain formation of $SrMnBi_2$ films on polar $LaAlO_3$ substrate
K. Takahashi, J. Shiogai, H. Inoue, S. Ito, S. Kimura, S. Awaji, **A. Tsukazaki**
AIP Advances **10**, 105216 (2020).

181) Molecular beam epitaxy of superconducting $Sn_{1-x}In_xTe$ thin films
M. Masuko, R. Yoshimi, **A. Tsukazaki**, M. Kawamura, K. S. Takahashi, M. Kawasaki, Y. Tokura
Physical Review Materials **4**, 091202(R) (2020).

180) Direct observation of the statics and dynamics of emergent magnetic monopoloes in a chiral magnet
N. Kanazawa, A. Kitaori, J. S. White, V. Ukleev, H. M. Ronnow, **A. Tsukazaki**, M. Ichikawa, M. Kawasaki, Y. Tokura
Physical Review Letters **125**, 137202 (2020).

179) Microwave response of interacting oxide two-dimensional electron systems
D. Tabrea, I. A. Dmitriev, S. I. Dorozhkin, B. P. Gorshunov, A. V. Boris, Y. Kozuka, **A. Tsukazaki**, M. Kawasaki, K. von Klitzing, J. Falson
Physical Review B **102**, 115432 (2020).

178) Giant magneto-optical responses in magnetic Weyl semimetal $Co_3Sn_2S_2$
Y. Okamura, S. Minami, Y. Kato, Y. Fujishiro, Y. Kaneko, J. Ikeda, J. Muramoto, R. Kaneko, K. Ueda, V. Kocsis, N. Kanazawa, Y. Taguchi, T. Koretsune, K. Fujiwara, **A. Tsukazaki**, R. Arita, Y. Tokura, Y. Takahashi
Nature Communications **11**, 4619 (2020).

177) Stabilization of a honeycomb lattice of IrO_6 octahedra by formation of ilmenite-type superlattices in $MnTiO_3$
K. Miura, K. Fujiwara, K. Nakayama, R. Ishikawa, N. Shibata, **A. Tsukazaki**
Communications Materials **1**, 55 (2020).

176) Current scaling of the topological quantum phase transition between a quantum anomalous Hall insulator and a trivial insulator
M. Kawamura, M. Mogi, R. Yoshimi, **A. Tsukazaki**, Y. Kozuka, K. S. Takahashi, M. Kawasaki, Y. Tokura
Physical Review B **102**, 041301(R) (2020). Rapid communication.

175) Inhomogeneous interface dipole effect at the Schottky junctions of $PdCrO_2$ on β-Ga_2O_3 (201) substrates
T. Miyakawa, T. Harada, S. Ito, **A. Tsukazaki**
Journal of Applied Physics **128**, 025302 (2020).

174) Large non-reciprocal charge transport mediated by quantum anomalous Hall edge states
K. Yasuda, T. Morimoto, R. Yoshimi, M. Mogi, **A. Tsukazaki**, M. Kawamura, K. S. Takahashi, M. Kawasaki, N. Nagaosa, Y. Tokura
Nature Nanotechnology **15**, 831 (2020).

173) Insulator-to-metal transition of Cr_2O_3 thin films via isovalent Ru^{3+} substitution
K. Fujiwara, M. Kitamura, D. Shiga, Y. Niwa, K. Horiba, T. Nojima, H. Ohta, H. Kumigashira, **A. Tsukazaki**
Chemistry of Materials **32**, 5272-5279 (2020).

172) Dynamic characteristics of $PdCoO_2$ / β-Ga_2O_3 Schottky junctions
T. Harada, **A. Tsukazaki**
Applied Physics Letters **116**, 232104 (2020).

171) Two-dimensional growth of conductive ultra-thin Sn films on insulating substrate with an Fe buffer layer
D. Zheng, J. Shiogai, H. Inoue, S. Souma, T. Sato, **A. Tsukazaki**
APL Materials **8**, 061103 (2020).

170) Magnetic-field-induced topological phase transition in Fe-doped $(Bi,Sb)_2Se_3$ heterostructures
Y. Satake, J. Shiogai, G. P. Mazur, S. Kimura, S. Awaji, K. Fujiwara, T. Nojima, K. Nomura, S. Souma, T. Sato, T. Dietl, **A. Tsukazaki**
Physical Review Materials **4**, 044202 (2020). Selected as Editor's suggestion.

169) Control of Schottky barrier height in metal/β-Ga_2O_3 junctions by insertion of $PdCoO_2$ layers
T. Harada, **A. Tsukazaki**
APL Materials **8**, 041109 (2020). Selected as a featured article.

168) Precise resistance measurement of quantum anomalous Hall effect in magnetic heterostructure film of topological insulator
Y. Okazaki, T. Oe, M. Kawamura, R. Yoshimi, S. Nakamura, S. Takeda, M. Mogi, K. S. Takahashi, **A. Tsukazaki**, M. Kawasaki, Y. Tokura, N-H. Kaneko
Applied Physics Letters **116**, 143101 (2020). Selected as a featured article.

167) Signature of band inversion in the perovskite thin-film alloy $BaSn_{1-x}Pb_xO_3$
J. Shiogai, T. Chida, K. Hashimoto, K. Fujiwara, T. Sasaki, **A. Tsukazaki**
Physical Review B **101**, 125125 (2020).

166) Electrical detection of the antifferomagnetic transition in $MnTiO_3$ ultrathin films by spin Hall magnetoresistance
K. Miura, K. Fujiwara, J. Shiogai, T. Nojima, **A. Tsukazaki**
Journal of Applied Physics **127**, 103903 (2020).

165) Anomalous Hall effect at the spontaneously electron-doped polar surface of $PdCoO_2$ ultrathin films
T. Harada, K. Sugawara, K. Fujiwara, M. Kitamura, T. Nojima, K. Horiba, H. Kumigashira, T. Takahashi, T. Sato, **A. Tsukazaki**
Physical Review Research **2**, 013282 (2020).

164) A platform for making and transferring oxide films
A. Tsukazaki
Nature News&Views **578**, 41 (2020).

2019

163) Ordering phenomena of spin trimers accompanied by a large geometrical Hall effect
S. Gao, M. Hirschberger, O. Zaharko, T. Nakajima, T. Kurumaji, A. Kikkawa, J. Shiogai, **A. Tsukazaki**, S. Kimura, S. Awaji, Y. Taguchi, T. Arima, Y. Tokura
Physical Review B **100**, 241115(R) (2019).

162) Doping-induced enhancement of anomalous Hall coefficient in Fe-Sn nanocrystalline films for highly sensitive Hall sensors
K. Fujiwara, Y. Satake, J. Shiogai, **A. Tsukazaki**
APL Materials **7**, 111103 (2019).

161) Low-frequency noise measurements on Fe-Sn Hall sensors
J. Shiogai, Z. Jin, Y. Satake, K. Fujiwara, **A. Tsukazaki**
Applied Physics Express **12**, 123001 (2019).

160) Electric dipole effect in $PdCoO_2$/β-Ga_2O_3 Schottky diodes for high-temperature operation
T. Harada, S. Ito, **A. Tsukazaki**
Science Advances **5**, eaax5733 (2019).

159) Ballistic transport in periodically modulated MgZnO/ZnO two-dimensional electron systems
K. Tanaka, J. Falson, Y. Kozuka, M. Uchida, D. Maryenko, J. T. Ye, Y. Iwasa, **A. Tsukazaki**, J. H. Smet, M. Kawasaki
Applied Physics Letters **115**, 153101 (2019). Selected as an Editor's Pick.

158) Quantum anomalous Hall effect driven by magnetic proximity coupling in all-telluride based heterostructure
R. Watanabe, R. Yoshimi, M. Kawamura, M. Mogi, **A. Tsukazaki**, X. Z. Yu, K. Nakajima, K.S. Takahashi, M. Kawasaki, Y. Tokura
Applied Physics Letters **115**, 102403 (2019).

157) Large anomalous Hall effect in topological insulators with proximitized ferromagnetic insulators
M. Mogi, T. Nakajima, V. Ukleev, **A. Tsukazaki**, R. Yoshimi, M. Kawamura, K.S. Takahashi, T. Hanashima, K. Kakurai, T. Arima, M. Kawasaki, Y. Tokura
Physical Review Letters **123**, 016804 (2019).

156) Nonreciprocal charge transport at topological insulator/superconductor interface
K. Yasuda, H. Yasuda, R. Yoshimi, T. Liang, **A. Tsukazaki**, K. S. Takahashi, N. Nagaosa, M. Kawasaki, Y. Tokura
Nature Communications **10**, 2734 (2019). https://doi.org/10.1038/s41467-019-10658-3

155) Ferromagnetic $Co_3Sn_2S_2$ thin films fabricated by co-sputtering
K. Fujiwara, J. Ikeda, J. Shiogai, T. Seki, K. Takanashi, **A. Tsukazaki**
Japanese Journal of Applied Physics Rapid Communications **58**, 050912 (2019).

154) Quantized conductance of one-dimensional strongly correlated electrons in an oxide heterostructure
H. Hou, Y. Kozuka, J-W. Liao, L. W. Smith, D. Kos, J. P. Griffiths, J. Falson, **A. Tsukazaki**, M. Kawasaki, C. J. B. Ford
Physical Review B **99**, 121302(R) (2019).

153) Growth control of corundum-derivative $MnSnO_3$ thin films by pulsed-laser deposition
K. Miura, K. Fujiwara, **A. Tsukazaki**
AIP Advances **9**, 035210 (2019).

152) Fe-Sn nanocrystalline films for flexible magnetic sensors with high temperature stability
Y. Satake, K. Fujiwara, J. Shiogai, T. Seki, **A. Tsukazaki**
Scientific Reports **9**, 3282 (2019).

151) Formation of distorted rutile-type NbO_2, MoO_2, and WO_2 films by reactive sputtering
K. Fujiwara, **A. Tsukazaki**
Journal of Applied Physics **125**, 085301 (2019).

150) Giant thermoelectric power factor in ultrathin FeSe superconductor
S. Shimizu, J. Shiogai, N. Takemori, S. Sakai, H. Ikeda, R. Arita, T. Nojima, **A. Tsukazaki**, Y. Iwasa
Nature Communications **10**, 825 (2019). https://doi.org/10.1038/s41467-019-08784-z

149) Magnetic topological insulators
Y. Tokura, K. Yasuda, **A. Tsukazaki**
Nature Reviews Physics **1**, 126-143 (2019).

148) Thin-film stabilization of $LiNbO_3$–type $ZnSnO_3$ and $MgSnO_3$ by molecular-beam epitaxy
K. Fujiwara, H. Minato, J. Shiogai, A. Kumamoto, N. Shibata, **A. Tsukazaki**
APL Materials **7**, 022505 (2019).

2018

147) Pulsed-laser deposition of InSe thin films for the detection of thickness-dependent bandgap modification
D. Zheng, J. Shiogai, K. Fujiwara, **A. Tsukazaki**
Applied Physics Letters **113**, 253501 (2018).

146) Current-driven magnetization switching in ferromagnetic bulk Rashba semiconductor (Ge,Mn)Te
R. Yoshimi, K. Yasuda, **A. Tsukazaki**, K. S. Takahashi, M. Kawasaki, Y. Tokura
Science Advances **4**, eaat9989 (2018).

145) Andreev reflection at the interface with an oxide in the quantum Hall regime
Y. Kozuka, A. Sakaguchi, J. Falson, **A. Tsukazaki**, M. Kawasaki
Journal of the Physical Society of Japan **87**, 124712 (2018).

144) Emergence of interfacial conduction and ferromagnetism in MnTe/InP
R. Watanabe, R. Yoshimi, M. Shirai, T. Tanigaki, M. Kawamura, **A. Tsukazaki**, K. S. Takahashi, R. Arita, M. Kawasaki, Y. Tokura
Applied Physics Letters **113**, 181602 (2018).

143) Topological quantum phase transition in magnetic topological insulator upon magnetization rotation
M. Kawamura, M. Mogi, R. Yoshimi, **A. Tsukazaki**, Y. Kozuka, K. S. Takahashi, M. Kawasaki, Y. Tokura
Physical Review B **98**, 140404(R) (2018). Rapid communication.

142) Ferromagnetic insulator $Cr_2Ge_2Te_6$ thin films with perpendicular remanence

M. Mogi, **A. Tsukazaki**, Y. Kaneko, R. Yoshimi, K. S. Takahashi, M. Kawasaki, Y. Tokura
APL Materials **6**, 091104 (2018). Selected as a featured article.

141) Effect of the depletion region in topological insulator heterostructures for ambipolar field-effect transistors
Y. Satake, J. Shiogai, K. Fujiwara, **A. Tsukazaki**
Physical Review B **98**, 125415 (2018).

140) A cascade of phase transitions in an orbitally mixed half-filled Landau level
J. Falson, D. Tabrea, D. Zhang, I. Sodemann, Y. Kozuka, **A. Tsukazaki**, M. Kawasaki, K. von Klitzing, J. H. Smet
Science Advances **4**, eaat8742 (2018).

139) Anisotropy of the upper critical field and its thickness dependence in superconducting FeSe electric double layer transistors
J. Shiogai, S. Kimura, S. Awaji, T. Nojima, **A. Tsukazaki**
Physical Review B **97**, 174520(2018). Editor's suggestion.

138) High-mobility field-effect transistor based on crystalline $ZnSnO_3$ thin films
H. Minato, K. Fujiwara, **A. Tsukazaki**
AIP Advances **8**, 055327 (2018).

137) Highly conductive $PdCoO_2$ ultrathin films for transparent electrodes
T. Harada, K. Fujiwara, **A. Tsukazaki**
APL Materials **6**, 046107 (2018). Editor's Pick.

136) Critical-current enhancement driven by suppression of superconducting fluctuation in ion-gated ultrathin FeSe
T. Harada, J. Shiogai, T. Miyakawa, T. Nojima, **A. Tsukazaki**
Superconductivity Science and Technology **31**, 055003 (2018).

135) Enhancement of superconducting transition temperature in FeSe electric-double-layer transistor with multivalent ionic liquids
T. Miyakawa, J. Shiogai, S. Shimizu, M. Matsumoto, Y. Ito, T. Harada, K. Fujiwara, T. Nojima, Y. Itoh, T. Aida, Y. Iwasa, **A. Tsukazaki**
Physical Review Materials **2**, 031801(R) (2018). Rapid Communication & Editor's suggestion.

134) Fermi level tuning of Dirac surface state in $(Bi_{1-x}Sb_x)_2Se_3$ alloy thin films
Y. Satake, J. Shiogai, D. Takane, K. Yamada, K. Fujiwara, S. Souma, T. Sato, T. Takahashi, **A. Tsukazaki**
Journal of Physics: Condensed Matter **30**, 085501 (2018).

133) Large magneto-thermopower in MnGe with topological spin texture
Y. Fujishiro, N. Kanazawa, T. Shimojima, A. Nakamura, K. Ishizaka, T. Koretsune, R. Arita, A. Miyake, H. Mitamura, K. Akiba, J. Shiogai, S. Kimura, S. Awaji, **A. Tsukazaki**, A. Kikkawa, Y. Taguchi, and Y. Tokura
Nature Communications **9**, 408 (2018).

132) All-in-all-out Magnetic domain inversion in $Tb_2Ir_2O_7$ with molecular fields anti-parallel to external fields
T. C. Fujita, Y. Kozuka, J. Matsuno, M. Uchida, **A. Tsukazaki**, T. Arima, M. Kawasaki
Physical Review Materials **2**, 011402(R) (2019).

2017

131) Topological spin-hedgehog crystals of a chiral magnet as engineered with magnetic anisotropy
N. Kanazawa, J. S. White, H. M. Ronnow, C. D. Dewhurst, D. Morikawa, K. Shibata, T. Arima, F. Kagawa, **A. Tsukazaki**, Y. Kozuka, M. Ichikawa, M. Kawasaki, Y. Tokura
Physical Review B Rapid Communication **96**, 220414(R) (2017).

130) Visualizing ferroic domains in an all-in-all-out antiferromagnet thin film
Y. Kozuka, T. C. Fujita, M. Uchida, T. Nojima, **A. Tsukazaki**, J. Matsuno, T. Arima, M. Kawasaki
Physical Review B **96**, 224417 (2017).

129) Observation of superparamagnetism in coexistence with quantum anomalous Hall C = ±1 and C = 0 Chern states
E. O. Lachman, M. Mogi, J. Sarkar, A. Uri, K. Bagani, Y. Anahory, Y. Myasoedov, M. E. Huber, **A. Tsukazaki**, M. Kawasaki, Y. Tokura, E. Zeldov
npj Quantum Materials **2**, 70 (2017).

128) Quantized chiral edge conduction on reconfigurable domain walls of a magnetic topological insulator
K. Yasuda, M. Mogi, R. Yoshimi, **A. Tsukazaki**, K. S. Takahashi, M. Kawasaki, F. Kagawa, Y. Tokura
Science **358**, 1311 (2017).

127) Tailoring tricolor structure of magnetic topological insulator for robust axion insulator
M. Mogi, M. Kawamura, **A. Tsukazaki**, R. Yoshimi, K. S. Takahashi, M. Kawasaki, Y. Tokura
Science Advances **3**, eaao1669 (2017).

126) Current-nonlinear Hall effect and spin-orbit torque magnetization switching in a magnetic topological insulator
K. Yasuda, **A. Tsukazaki**, R. Yoshimi, K. Kondou, K. S. Takahashi, Y. Otani, M. Kawasaki, Y. Tokura
Physical Review Letters **119**, 137204 (2017).

125) Fabrication of tetragonal FeSe - FeS alloy films with high sulfur contents by alternate deposition
K. Fujiwara, J. Shiogai, **A. Tsukazaki**
Japanese Journal of Applied Physics, Rapid communications **56**, 100308 (2017).

124) Nonlinear response of a MgZnO/ZnO heterostructure close to zero bias
Q. Shi, J. Falson, M. A. Zudov, Y. Kozuka, **A. Tsukazaki**, M. Kawasaki, J. Smet
Physical Review B **96**, 125401 (2017).

123) A versatile patterning process based on easily soluble sacrificial bilayer
T. Harada, **A. Tsukazaki**
AIP Advances **7**, 085011 (2017).

122) Current-driven instability of the quantum anomalous Hall effect in ferromagnetic topological insulators
M. Kawamura, R. Yoshimi, **A. Tsukazaki**, K. S. Takahashi, M. Kawasaki, Y. Tokura
Physical Review Letters **119**, 016803 (2017).

121) Enhanced electron mobility at the two-dimensional metallic surface of $BaSnO_3$ electric-double-layer transistor at low temperatures
K. Fujiwara, K. Nishihara, J. Shiogai, **A. Tsukazaki**
Applied Physics Letters **110**, 203503 (2017).

120) Observation of anomalous Hall effect in a non-magnetic two-dimensional electron system
D. Maryenko, A. S. Mishchenko, M. S. Bahramy, A. Ernst, J. Falson, Y. Kozuka, **A. Tsukazaki**, N. Nagaosa, M. Kawasaki
Nature Communications **8**, 14777 (2017). DOI: 10.1038/ncomms14777

119) Unified trend of superconducting transition temperature against Hall coefficient for ultrathin FeSe films prepared on different oxide substrates
J. Shiogai, T. Miyakawa, Y. Ito, T. Nojima, **A. Tsukazaki**
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The 5th symposium for core research clusters for materials science and spintronics and The 4th GP-MS, (on-line) Oct. 27, 2021

29) Thin film devices based on topological materials
A. Tsukazaki
3rd EPiQS-TMS alliance workshop on topological materials science, UCSB USA, Oct. 21-25, 2019.

28) Interface engineering of Sn-based oxide semiconductors
A. Tsukazaki
Compound semiconductor week (CSW2019), Nara, May 19-22, 2019.

27) High-Tc superconductivity in FeSe electric-double-layer transistor
A. Tsukazaki
The 8th Indo-Japan Seminar, Tokyo, Jan. 31- Feb. 2, 2019.

26) Emergent phenomena at the thin films heterostructures
A. Tsukazaki
Summit of Materials Science (SMS2018), Sendai, Oct. 29-30, 2018.

25) Edge current control in magnetic topological insulator heterostructures
A. Tsukazaki
MRS spring meeting, Phoenix USA April 4, 2018.

24) Quantum anomalous Hall effect in topological insulator Cr-doped $(Bi,Sb)_2Te_3$ heterostructures
A. Tsukazaki
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A. Tsukazaki
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22) Electrochemical etching approach to 'ultrathin' superconductor FeSe in EDL transistor configuration
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21) Quantized Hall effects in topological insulator field-effect transistors
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