

業績

Achievement

1 学術論文 <原著論文>

- B. Zhou and *M. Kimura, “ $2\alpha + t$ cluster structure in ^{11}B ”, Phys. Rev. C 98, 054323-1-11 (2018).
- T. Baba and *M. Kimura, “Characteristic α and ^6He decays of linear-chain structures in ^{16}C ”, Phys. Rev. C 97, 054315-1-12 (2018).
- S. Takács, F. Ditrói, Z. Szűcs, *M. Aikawa, H. Haba, Y. Komori, M. Saito, “Measurement of activation cross sections of alpha particle induced reactions on iridium up to an energy of 50 MeV”, Appl. Radiat. Isot. 136, 133-142 (2018).
- Naoyuki Ukon, *Masayuki Aikawa, Yukiko Komori, Hiromitsu Haba, “Production cross sections of deuteron-induced reactions on natural palladium for Ag isotopes”, Nucl. Instrum. Methods B 426, 13-17 (2018).
- *M. Aikawa, M. Saito, N. Ukon, Y. Komori, H. Haba, “Activation cross sections of alpha-induced reactions on natIn for ^{117}mSn production”, Nucl. Instrum. Methods B 426, 18-21 (2018).
- *M. Aikawa, M. Saito, S. Ebata, Y. Komori, H. Haba, “Activation cross sections of alpha-induced reactions on natZn for Ge and Ga production”, Nucl. Instrum. Methods B 427, 91-94 (2018).
- F. Ditrói, S. Takács, H. Haba, Y. Komori, *M. Aikawa, M. Saito, T. Murata, “Investigation of alpha particle induced reactions on natural silver in the 40-50 MeV energy range”, Nucl. Instrum. Methods B 436, 119-129 (2018).
- *M. Aikawa, Y. Komori, H. Haba, “Activation cross sections of deuteron-induced reactions on niobium up to 24 MeV”, Nucl. Instrum.

2 学術論文<国際会議抄録等>

- M. Kimura, “Clustering Probed by Nuclear Responses”, Proceedings of the Ito International Research Center Symposium “Perspectives of the Physics of Nuclear Structure”, JPS Conf. Proc. Vol. 23, 012019-1-8 (2018).
- *M. Kimura and T. Baba, “Nuclear molecules in neutron-rich nuclei”, AIP Conference Proceedings 2038, 020007-1-7 (2018). item T. Baba and *M. Kimura, “Characteristic decay patterns of the linear-chain states in carbon isotopes”, AIP Conference Proceedings 2038, 020010-1-6 (2018).
- *M. Kimura, S. Ebata, D. Ichinkhorloo, A. Sarsembaeva, N. Ukon and *J. Singh, “Activity of Hokkaido University Nuclear Reaction Data Centre (JCPRG)”, Proceedings of the 8th AASPP Workshop on Asian Nuclear Reaction Database Development, INDC(MGL)-0001 12 (2018).
- *D. Ichinkhorloo, M. Aikawa, S. Chiba, Y. Hirabayashi, and K.Katō, “Analysis of the $^{16}\text{O}(n,pn)^{15}\text{O}$ Reaction Using the CDCC method”, Proceedings of the 9th AASPP Workshop on Asian Nuclear Reaction Database Development, IAEA INDC(KOR)-006 Distr. NC, pp.61.

- Manju, *J. Singh, Shubhchintak, and R. Chatterjee, “ Low-lying dipole strength for deformed halo ^{31}Ne ”, Proceedings of the DAE-BRNS Symp. on Nucl. Phys. 63, 462 (2018).
- *D. Ichinkhorloo, M. Aikawa, S. Ebata, S. Imai, J. Singh, N. Otsuka, and M. Kimura, “ Report EXFOR Compilation of RIBF data in 2017 ”, RIKEN Accel. Prog. Rep. 51, 104 (2018).
- 馬場智之, *木村真明, 「炭素同位体における直鎖クラスター構造とその崩壊モード」原子核研究, Vol. 62 Supplement 1, January 2018, p.73-74.
- 鈴木祥輝, *木村真明, 「中性子魔法数 28 の破れに伴う原子核の変形」原子核研究, Vol. 62 Supplement 1, January 2018, p.54-55.
- K. Chikaato, M. Takechi, T. Otsubo, H. Wang, H. Otsu, H. Sakurai, D.S. Ahn, *M. Aikawa, (8 番目, 以下 23 名), “ Measurement of interaction cross-section for ^{90}Sr , ^{88}Kr , ^{89}Rb , and ^{91}Y ”, Proceedings of the 2017 Symposium on Nuclear Data, 211-213 (2018).
- X. Sun, H. Wang, H. Otsu, H. Sakurai, D.S. Ahn, *M. Aikawa, (6 番目, 以下 23 名), “ Reaction study of ^{136}Xe on proton, deuteron and carbon at 168 AMeV ”, Proceedings of the 2017 Symposium on Nuclear Data, 99-104 (2018).
- Tomohiro MURATA, *Masayuki AIKAWA, Moemi SAITO, Naoyuki UKON, Yukiko KOMORI, Hiromitsu HABA, Sándor TAKÁCS, “ Cross Section Measurement to Produce ^{99}Mo by Alpha-Induced Reactions on Natural Zirconium ”, Proceedings of the 2017 Symposium on Nuclear Data, 181-184 (2018).
- Moemi Saito, *Masayuki Aikawa, Tomohiro Murata, Naoyuki Ukon, Yukiko Komori, Hiromitsu Haba, Sándor Takács, “ The measurement of the excitation function of alpha induced reaction on natYb to produce ^{177}Lu ”, Proceedings of the 2017 Symposium on Nuclear Data, 115-118 (2018).
- *M. Aikawa, M. Saito, S. Ebata, Y. Komori, H. Haba, “ Activation cross sections of alpha-induced reactions on natural zinc for ^{68}Ge production ”, Proceedings of the 2016 Symposium on Nuclear Data, 153-156 (2018).
- Naoyuki Ukon, Moemi Saito, *Masayuki Aikawa, “ Production cross sections of ^{52}Fe isotope in alpha particle induced reactions on natCr ”, Proceedings of the 2016 Symposium on Nuclear Data, 129-133 (2018).
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- X. Sun, H. Wang, H. Otsu, H. Sakurai, D.S. Ahn, *M. Aikawa, (6 番目, 以下 23 名), "Spallation reaction study of ^{136}Xe on proton, deuteron and carbon", RIKEN Accelerator Progress Report 51, 50 (2018).
- T. Murata, *M. Aikawa, M. Saito, N. Ukon, Y. Komori, H. Haba, S. Takacs, "Cross section measurement to produce ^{99}Mo by alpha-induced reactions on natural Zr", RIKEN Accelerator Progress Report 51, 25 (2018).

3 著書

- M. Kimura, "Cluster states in stable and unstable nuclei", *Frontiers in Nuclear and Particle Physics* Vol. 2, Edited by Y. Iwata (2018), pp.210-232, DOI: 10.2174/97816810876411190201, ISBN: 978-1-68108-765-8

4 学術講演<国際学会・国際シンポジウム>

<招待講演>

- IV Topical Workshop on Modern Aspects in Nuclear Structure, [Bormio, Italy, 2018.2.19-25]
- M. Kimura, "Structure and decay of PDR in Ne isotopes"
- Fourth International Workshop on "State of the Art in Nuclear Cluster Physics" (SOTANCP4) [Galveston, Texas, USA, 2018.5.13-18]
- M. Kimura, "Nuclear Molecules in neutron-rich nuclei"
- Nuclear Structure and Related Topics, [Burgas, Bulgaria, 2018.6.3-9]
- M. Kimura, "Structure and decay of pattern of Pygmy dipole resonance"
- ECT* workshop: Probing exotic structure of short-lived nuclei by electron scattering, [Trento, Italy, 2018.7.16-20]
- M. Kimura, "Probes for clustering in neutron-rich nuclei"
- 6th International Conference on Collective Motion in Nuclei under Extreme Conditions, [Cape Town, South Africa, 2018.10.29-11.2]
- M. Kimura, "Structure and Responses studied by time evolution method -Cluster resonances and PDR-"
- Workshop on Nuclear Cluster Physics (WNCP2018) [Sichuan University, Chengdu, China, 2018.11.9-13]
- M. Kimura, "Shape of Carbon-12"

<一般講演><<口頭発表>>

- Technical Meeting on the International Network of Nuclear Reaction Data Centres (NRDC2018) [Global Centre for Nuclear Energy Partnership (GCNEP), Bahadurgarh, Haryana, India, 2018.5.1-4]
- J. Singh, “ Progress Report of Japan Nuclear Reaction Data Centre (JCPRG) ” ,
https://www-nds.iaea.org/nrdc/nrdc_2018/P2018-09
- 4th International Workshop on “ State of the Art in Nuclear Cluster Physics ” (SOTANCP4) [Galveston, Texas, USA, 2018.5.13-18]
- T. Baba and *M. Kimura, “ Characteristic decay patterns of the linear-chain states in carbon isotopes ”
- 10th international conference on Direct Reactions with Exotic Beams (DREB2018) [Kunibiki Messe, Matsue, 2018.6.4-8]
- *J. Singh, W. Horiuchi, L.Fortunato and A. Vitturi, “ Pairing collectivity in the ground state of Borromean nuclei and unbound 2n-systems : 22C and 26O ”
- Compilation of Experimental Nuclear Reaction Data, [IAEA Headquarters, Vienna, Austria, 2018.10.22-25]
- T. Tada, “ Technical issues on EXFOR compilation at JCPRG ” ,
https://www-nds.iaea.org/nrdc/wksp_2018/
- 5th Joint Meeting of the Nuclear Physics Divisions of the American Physical Society and The Physical Society of Japan [Hilton Waikoloa Village, Waikoloa, Hawaii, USA, 2018.10.23-27]
- T. Baba and *M. Kimura, “ Coulomb shift in 14O as the signature of the linear-chain in 14C ”
- Workshop on Nuclear Cluster Physics (WNCP2018) [Sichuan University, Chengdu, China, 2018.11.9-13]
- T. Baba and *M. Kimura, “ Characteristic α and 6He decays of the linear-chain structures in 16C ”
- 9th AASPP Workshop on Asian Nuclear Reaction Database Development [The K Hotel, Gyeongju, Republic of Korea, 2018.11.12-15]
- *D. Ichinkhorloo, M. Aikawa, S. Chiba, Y. Hirabayashi, and K.Katō, “ Analysis of the 16O(n,pn)15O Reaction Using the CDCC method ”
- *M. Aikawa, M. Saito, T. Murata, M. Sakaguchi, “ Systematic study on charged-particle-induced reactions for medical radioisotope production ”
- Recent advances in nuclear structure physics (RANSP2018) [Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan, 2018.11.29-12.3]
- J. Singh, “ Two-neutron correlations in the neutron-rich nuclei ”
- 13th International Conference on Nucleus-Nucleus Collisions (NN2018) [Saitama, Japan, 2018.12.4-8]
- *D. Ichinkhorloo, M. Aikawa, S. Chiba, Y. Hirabayashi, and K.Katō, “ Analysis of the 16O(n,pn)15O Reaction ”

- *J. Singh, W. Horiuchi, L. Fortunato and A. Vitturi, “ Three-body description of 2n-halo and unbound 2n-systems: ^{22}C and ^{26}O ”
- Tsukuba-CCS workshop on “ microscopic theories of nuclear structure and dynamics ”, [Tsukuba, Japan, 2018.12.10-12]
- M. Kimura, “ Shape of Carbon-12 ”
- 18th Radiochemical Conference, [Mariánské Lázně, Czech Republic, 2018.5.13-18]
- T. Murata, *M. Aikawa, M. Saito, N. Ukon, Y. Komori, H. Haba, S. Takács, “ ^{99}Mo production from alpha-induced reaction on ^{96}Zr ”

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- 10th international conference on Direct Reactions with Exotic Beams (DREB2018) [Kunibiki Messe, Matsue, 2018.6.4-8]
- T. Baba and *M. Kimura, “ Decay mode of the linear-chain states in C isotopes ”
- Y. G. Suzuki and *M. Kimura, “ The neutron magic number 28 and the structure in neutron-rich nuclei ”

5 学術講演<国内学会・国内研究会等>

<一般講演>◀口頭発表▶

- 日本物理学会第 73 回年次大会, [東京理科大学野田キャンパス, 2018.3.22-25]
 - 木村真明, “ 実時間発展法による軽い核の応答研究 II ”
 - 馬場智之, *木村真明, “ ^{16}C における直鎖クラスター状態と崩壊モード ”
 - 鈴木祥輝, *木村真明, “ 中性子数 28 近傍の中性子過剰核における低励起状態の構造について ”
- 2018 年度原子核三者若手夏の学校, [ホテルニューカネイ, 千葉県, 2018.8.6-11]
 - *鈴木祥輝, 木村真明, “ $N=28$ 近傍の中性子過剰核における三軸非対称変形 ”
 - *本木英陽, 木村真明, “ 実時間発展法による Hoyle 状態と 4α クラスター状態の記述 ”
- 基研研究会「Threshold Rule 50」[京都大学基礎物理学研究所, 2018.10.3-5]
 - 木村真明, “ Structure and decay of PDR in Ne isotopes ”
 - 馬場智之, *木村真明, “ ^{14}C - ^{14}O における直鎖クラスター状態のクーロンシフト ”
- 北海道原子核理論グループ研究会, [北海道大学札幌キャンパス, 2018.11.19-21]
 - 本木英陽, *木村真明, “ 実時間発展法による Hoyle 状態と 4α 状態の記述 ”
- 日本原子力学会「2018 年春の年会」, [大阪大学吹田キャンパス, 2018.3.26-28]
 - 村田朋大, *合川正幸, 齋藤萌美, 右近直之, 小森有希子, 羽場宏光, タカッチ サンドール, “ Zr 標的へのアルファ粒子照射による ^{99}Mo の励起関数測定 ”

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- 2018 年度核データ研究会 [東京工業大学, 2018.11.29-30]
<http://www.aesj.or.jp/~ndd/symposium/2018/program.html>
 - M. Sakaguchi, *M. Aikawa, M. Saito, N. Ukon, Y. Komori, H. Haba, "Production cross sections of ^{89}Zr by deuteron-induced reactions on ^{89}Y " (PB09)
 - 木村真明, “核応答で観るクラスター共鳴” (PB15)

6 国際学会等の組織・運営委員

- 木村真明, 加藤幾芳, 4th International Workshop on “State of the Art in Nuclear Cluster Physics” (SOTANCP4) [Galveston, Texas, USA, 2018.5.13-18] < International Advisory Committee >
- J. Singh, International workshop on “New Frontiers in Nuclear Physics and Astrophysics” (NNPA2018) [Akdeniz University, Antalya, Turkey, 2018.5.28-6.1] < Local Organizing Committee >
- 木村真明, Bo Zhou, Workshop on Nuclear Cluster Physics (WNCP2018) [Sichuan University, Chengdu, China, 2018.11.9-13] < Organizing Committee >
- 木村真明, Tsukuba-CCS workshop on “microscopic theories of nuclear structure and dynamics”, [Tsukuba, Japan, 2018.12.10-12] < Organizing Committee >