

業績

Achievements

1 学術論文

- M. Kimura, T. Suhara and Y. Kanada-En'yo, "Antisymmetrized molecular dynamics studies for exotic clustering phenomena in neutron-rich nuclei", *Eur. Phys. J A* 52, 373 (2016).
- J.Lee, H.Liu, P Doornenbal, M.Kimura (他 19 名), "Asymmetry dependence of reduction factors from single-nucleon knockout of ^{30}Ne at 230 MeV/nucleon", *Prog. Theor. Exp. Phys.* 2016, 083D01 (2016).
- H. Masui and M. Kimura, "Deuteron-like neutron-proton correlation in ^{18}F studied with the cluster-orbital shell model approach", *Prog. Theor. Exp. Phys.* 2016, 053D01 (2016).
- W. Horiuchi, S. Hatakeyama, S. Ebata and Y. Suzuki, "Extracting nuclear sizes of medium to heavy nuclei from total reaction cross sections", *Phys. Rev. C* 93, 044611-1-16 (2016).
- R. Kanungo, W. Horiuchi (他 36 名, M. Kimura 17 番目), "Proton distribution radii of $^{12-19}\text{C}$ illuminate features of neutron halos", *Phys. Rev. Lett.* 117, 102501-1-6 (2016).
- DIchinkhorloo, M. Aikawa, S. Chiba, Y. Hirabayashi, K. Kato, "Low energy scattering cross sections for $n + ^6,7\text{Li}$ reactions using the continuum-discretized coupled-channels method", *Phys. Rev. C* 93, 064612 (2016).
- M. Nyman, F. Belloni, D. Ichinkhorloo, E. Pirovano, A. J. M. Plompen and C. Rouki, "Measurement of the 477.6-keV γ -ray production cross section following inelastic neutron scattering by ^7Li ", *Phys. Rev. C* 93, 024610, (2016).
- Y. Chiba, Y. Taniguchi and M. Kimura, "Isoscalar dipole transition as a probe for asymmetric clustering", *Phys. Rev. C* 93, 034319 (2016)
- T. Baba, M. Kimura "Structure and decay pattern of the linear-chain state in ^{14}C ", *Phys. Rev. C* 94, 044303 (2016).
- M. Aikawa, S. Ebata, S. Imai, "Thick-target transmission method for excitation functions of interaction cross sections", *Nucl. Instrum. Methods B* 383, 156, (2016).
- F. Ditroi, S. Takacs, H. Haba, Y. Komori, M. Aikawa, Z. Szucs, M. Saito, "Excitation function of the alpha particle induced nuclear reactions on enriched ^{116}Cd , production of the theranostic isotope $^{117\text{m}}\text{Sn}$ ", *Nucl. Instrum. Methods B* 385, 1, (2016).

2 論文(国際会議抄録等)

- H. Masui and M. Kimura, "Deuteron-like correlation of valence nucleons for the T=0 channel in ^{18}F ", *EPJ Web of Conferences* 113, 06003 (2016).
- D. Ichinkhorloo, M. Aikawa, S. Chiba, Y. Hirabayashi, K. Kato, "The scattering cross

sections for ${}^6,7\text{Li} + n$ reactions”, EPJ Web of Conferences, 122, (2016).

- Manju, Jagjit Singh, P. Banerjee, R. Chatterjee, “Scaling properties in deformed medium mass neutron halo nuclei”, Proceedings of the DAE-BRNS Symp. on Nucl. Phys. 61, 474 (2016)
- Shuichiro Ebata, Masayuki Aikawa, Shotaro Imai, “Simulation for thick-target yields of transmutation reactions on radioactive targets, based on inverse kinematics”, EPJ Web of Conferences 122, 07003, (2016).
- A. Sarsembayeva, S. Imai, S. Ebata, M. Chiba, K. Kato, N. Otuka, M. Aikawa, “Current status in development of new EXFOR editor”, Proceedings of the 2015 Symposium on Nuclear Data, 81, (2016).
- Masayuki Aikawa, Shuichiro Ebata, Shotaro Imai, “Interaction cross sections using thick-target transmission method”, Proceedings of the 2015 Symposium on Nuclear Data, 77, (2016)

3 著書

- M. Kimura, “Cluster states in stable and unstable nuclei”, *Progress of time-dependent nuclear reaction theory*, ed. by Y. Iwata, (Bentham Science Publishers 2016).

4 口頭発表(国際会議等)

<招待講演>

- M. Kimura, “Nuclear clustering probed by monopole and dipole responses”, Clustering effects of nucleons in nuclei and quarks in multi-quark states, [KITPC, Beijing China, 2016.3.28-4.22]
- M. Kimura, “Probing asymmetric clusters by isoscalar monopole/dipole transitions”, The 11th International Conference on Clustering Aspects of Nuclear Structure and Dynamics (Cluster '16), [University of Naples, Naples, Italy, 2016.5.23-27]
- M. Kimura, “Clusters and Responses in Atomic nuclei”, International workshop for the collective motions in nuclei, [Weihei, China. 2016.7.21.]
- J. Singh, “Continuum excitation’s in the Borromean systems and the unbound $2n$ -systems: ${}^6\text{He}$ and ${}^{26}\text{O}$ ”, Invited seminar, [University of Padova, Italy, 2016.10.21]
- M. Kimura, “Nuclear responses and Clustering phenomena”, Workshop on Nuclear Cluster Physics (WNCP2016), [Kannai Media Center, Kanto Gakuin University, Yokohama, Japan, 2016.11.14-17]
- *M. Kimura, “Clustering and Nuclear responses”, First Tsukuba-CCS-RIKEN joint workshop on microscopic theories of nuclear structure and dynamics, [RIKEN Nishina Center, 2016.12.12-13, University of Tsukuba, 2016.12.14-16].

<一般講演>

- T. Baba and M. Kimura, “Linear-chain structure in C isotopes”, Clustering effects of nucleons in nuclei and quarks in multi-quark states, [KITPC, Beijing China, 2016.3.28-4.22]

- *Y. Chiba, Y. Taniguchi and M. Kimura, “Asymmetric cluster structure and isoscalar monopole/dipole transitions of ^{28}Si ”, The 11th International Conference on Clustering Aspects of Nuclear Structure and Dynamics (Cluster '16), [University of Naples, Naples, Italy, 2016.5.23-27]
- *T. Baba, M. Kimura, “Structure and decay pattern of linear-chain states in neutron-rich Carbon isotopes”, The 11th International Conference on Clustering Aspects of Nuclear Structure and Dynamics (Cluster '16), [University of Naples, Naples, Italy, 2016.5.23-27]
- *R. Imai and M. Kimura, “A new generator coordinate method to describe α gas-like states”, The 11th International Conference on Clustering Aspects of Nuclear Structure and Dynamics (Cluster '16), [University of Naples, Naples, Italy, 2016.5.23-27]
- *D. Ichinkhorloo, M. Aikawa, S. Chiba, Y. Hirabayashi and K. Kato, “The Continuum Discretized Coupled Channels Method to Nucleon-Induced Reactions on $^{6,7}\text{Li}$ ”, 6th International Conference on Contemporary Physics, [Ulaanbaatar, Mongolia, 2016.6.8]
- M. Kimura, “Probing asymmetric cluster states of astrophysical interest using isoscalar monopole and dipole transitions”, 14th International Symposium on Nuclei in the Cosmos XIV[Toki Messe, Niigata, Japan, 2016.6.19-24]
- M. Kimura, “Probing asymmetric cluster states using isoscalar monopole and dipole transitions”, Mini-Workshop on Nuclear Clustering 2016, [Peking University, Beijing, China, 2016.7.2-3]
- Y. Chiba, Y. Taniguchi and M. Kimura, “Asymmetric clustering in ^{28}Si probed by isoscalar monopole and dipole transitions”, Mini-Workshop on Nuclear Clustering 2016, [Peking University, Beijing, China, 2016.7.2-3]
- T. Baba and M. Kimura, “Structure and decay pattern of linear-chain states in C isotopes”, Mini-Workshop on Nuclear Clustering 2016, [Peking University, Beijing, China, 2016.7.2-3]
- D. Ichinkhorloo, M. Aikawa, S. Chiba, Y. Hirabayashi and K. Kato, “Low energy scattering cross sections for $^6\text{Li}+n$ and $^7\text{Li}+n$ reactions”, The 7th Asian Nuclear Reaction Database Development Workshop [China Nuclear Data Center, China Institute of Atomic Energy, China, 2016.11.8-11]
- Y. Chiba, Y. Taniguchi and M. Kimura, “Cluster correlation in the excited states of ^{28}Si ”, Workshop on Nuclear Cluster Physics (WNCP2016), [Kannai Media Center, Kanto Gakuin University, Yokohama, Japan, 2016.11.14-17]
- T. Baba and M. Kimura, “Ternary decay of linear-chain state in ^{14}C ”, Workshop on Nuclear Cluster Physics (WNCP2016), [Kannai Media Center, Kanto Gakuin University, Yokohama, Japan, 2016.11.14-17]
- R. Imai, M. Kimura, “ α cluster structures of ^{12}C including negative parity states by time-evolution method”, Workshop on Nuclear Cluster Physics (WNCP2016), [Kannai Media Center, Kanto Gakuin University, Yokohama, Japan, 2016.11.14-17]

5 口頭発表(国内会議等)

<一般講演>

- 木村真明, “反応断面積と中性子過剰核におけるクラスターの発現”, RCNP 研究会, 「全反応断面積及び荷電変化断面積による陽子・中性子半径研究の現状と展望」 [大阪大学核物理研究センター, 2016.1.12-13]
- 木村真明, “ ^{26}Ne ピグミー共鳴の構造と崩壊モード”, 日本物理学会第 71 回年次大会, [東北学院大学泉キャンパス, 2016.3.19-22]
- 千葉陽平, 谷口億宇, 木村真明, “ ^{28}Si の高励起 $^{24}\text{Mg}+\alpha/^{16}\text{O}+^{12}\text{C}$ クラスタ一回転帯”, 日本物理学会第 71 回年次大会, [東北学院大学泉キャンパス, 2016.3.19-22]
- 馬場智之, 木村真明, “ ^{16}C における 3α クラスタ状態とアルファ崩壊幅”, 日本物理学会第 71 回年次大会, [東北学院大学泉キャンパス, 2016.3.19-22]
- 今井涼介, 木村真明, “生成座標法による軽い 4N 核のクラスター構造の研究”, 日本物理学会第 71 回年次大会, [東北学院大学泉キャンパス, 2016.3.19-22]

- 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の崩壊モードについて”, 2016 年度 原子核理論 北海道地域スクール, [北海道大学, 2016.9.6-8]
- 今井涼介, 木村真明, “実時間生成座標法によるクラスター構造の研究”, 2016 年度 原子核理論 北海道地域スクール, [北海道大学, 2016.9.6-8]
- 木村真明, “中性子過剰ネオン同位体のピグミー共鳴”, 日本物理学会 2016 年秋季大会, [宮崎大学木花キャンパス, 2016.9.21-24]
- 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の崩壊モードについて” 日本物理学会 2016 年秋季大会, [宮崎大学木花キャンパス, 2016.9.21-24]
- 今井涼介, 木村真明, “実時間生成座標法によるクラスター構造の研究” 日本物理学会 2016 年秋季大会, [宮崎大学木花キャンパス, 2016.9.21-24]