

2016年度入力データ

Data-Entries of 2016

北海道大学大学院理学研究院
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1 今年度入力論文リスト

以下の雑誌からデータ収集・入力作業を行った。作業にあたって、国内外の研究機関に所属する著者の方々からご協力を得ることができ、質の高いデータ入力につながっている。

- Journal of Nuclear Science and Technology
- Journal of Radioanalytical and Nuclear Chemistry
- Journal of the Physical Society of Japan
- Nuclear Instruments and Methods in Physics Research A
- Nuclear Instruments and Methods in Physics Research B
- Nuclear Physics A
- Physical Review C
- Physical Review Letters
- Physics Letters B
- Scientific Papers of the Institute of Physical and Chemical Research

今年度新規に収録した全論文 58 編のリストを表 1 に示す。

表 1: 採録論文一覧

Data 2214

Title Differential cross sections for the reaction $^{12}\text{C}(\text{d},\text{p})^{13}\text{C}$ in the energy range of deuterons from 15- to 20-MeV
Author S.Morita *et al.*
Reference J.Phys.Soc.Jpn. **15** (1960) 550
Table Total : 13 EXFOR : 13 Author : 0 Table : 0 Curve : 13 Unobt : 0

Data 2219

Title On the alpha-particles from the $\text{N}^{14}(\text{d},\text{a})\text{C}^{12}$ ground state reaction
Author N.Kawai *et al.*
Reference J.Phys.Soc.Jpn. **15** (1960) 930
Table Total : 8 EXFOR : 8 Author : 0 Table : 0 Curve : 8 Unobt : 0

Data 2220

Title (d,a) reactions on some light nuclei
Author C.Hu *et al.*
Reference J.Phys.Soc.Jpn. **15** (1960) 1741
Table Total : 18 EXFOR : 18 Author : 0 Table : 0 Curve : 18 Unobt : 0

Data 2224

Title Inelastic scattering of deuterons from ^{12}C , ^{24}Mg and ^{60}Ni
Author Y.Ishizaki *et al.*
Reference J.Phys.Soc.Jpn. **16** (1961) 1056
Table Total : 9 EXFOR : 9 Author : 0 Table : 0 Curve : 9 Unobt : 0

Data 2225

Title He³-alpha scattering
Author R.Chiba *et al.*
Reference J.Phys.Soc.Jpn. **16** (1961) 1077
Table Total : 26 EXFOR : 26 Author : 0 Table : 0 Curve : 26 Unobt : 0

Data 2226

Title Angular distribution of (a,p) reactions in some light nuclei
Author M.Kondo *et al.*
Reference J.Phys.Soc.Jpn. **16** (1961) 1091
Table Total : 13 EXFOR : 13 Author : 0 Table : 1 Curve : 12 Unobt : 0

Data 2227

Title The N14(d,a)C12 ground-state reaction in the energy range of deuteron from 1.5 to 3.0 MeV
Author T.Ishimatsu *et al.*
Reference J.Phys.Soc.Jpn. **16** (1961) 1529
Table Total : 10 EXFOR : 10 Author : 0 Table : 1 Curve : 9 Unobt : 0

Data 2228

Title Angular distribution for the 14N(d,p)15N ground state reaction
Author S.Morita *et al.*
Reference J.Phys.Soc.Jpn. **16** (1961) 1849
Table Total : 4 EXFOR : 4 Author : 0 Table : 0 Curve : 4 Unobt : 0

Data 2230

Title (d,a) reactions on O16, N14 and C12 by 14.7 MeV deuterons
Author T.Yanabu *et al.*
Reference J.Phys.Soc.Jpn. **16** (1961) 2118
Table Total : 13 EXFOR : 13 Author : 0 Table : 6 Curve : 7 Unobt : 0

Data 2231

Title Angular distributions of alpha-particles from F19, Al27 and P31 bombarded with protons
Author S.Yamashita *et al.*
Reference J.Phys.Soc.Jpn. **16** (1961) 2378
Table Total : 25 EXFOR : 25 Author : 0 Table : 0 Curve : 25 Unobt : 0

Data 2233

Title Angular distributions of the alpha particles from the (p,a) reactions on Na23 and K39 at 6.9-7.3 MeV
Author T.Nakamura *et al.*
Reference J.Phys.Soc.Jpn. **17** (1962) 19
Table Total : 12 EXFOR : 12 Author : 0 Table : 0 Curve : 12 Unobt : 0

Data 2234

Title Scattering and polarization of 57-MeV protons
Author S.Yamabe *et al.*
Reference J.Phys.Soc.Jpn. **17** (1962) 729
Table Total : 27 EXFOR : 27 Author : 0 Table : 0 Curve : 27 Unobt : 0

Data 2235

Title Differential excitation functions for alpha particle and proton groups from the deuteron induced reactions on F19
Author T.Maki *et al.*

Reference J.Phys.Soc.Jpn. **17** (1962) 1319
Table Total : 5 EXFOR : 5 Author : 0 Table : 0 Curve : 5 Unobt : 0

Data 2237

Title An experimental survey of nuclear reactions induced by 57 MeV protons, part I
Author I.Nonaka *et al.*
Reference J.Phys.Soc.Jpn. **17** (1962) 1817
Table Total : 19 EXFOR : 19 Author : 0 Table : 0 Curve : 19 Unobt : 0

Data 2238

Title Structure of giant resonance in the P31(p,g) reaction
Author M.Kimura *et al.*
Reference J.Phys.Soc.Jpn. **18** (1963) 477
Table Total : 5 EXFOR : 5 Author : 0 Table : 1 Curve : 4 Unobt : 0

Data 2239

Title The (a,p) reactions on light and medium-weight nuclei
Author T.Yamazaki *et al.*
Reference J.Phys.Soc.Jpn. **18** (1963) 620
Table Total : 29 EXFOR : 29 Author : 0 Table : 15 Curve : 14 Unobt : 0

Data 2241

Title Elastic and inelastic scattering of 28.5 MeV alpha particles by medium-weight nuclei
Author I.Kumabe *et al.*
Reference J.Phys.Soc.Jpn. **19** (1964) 147
Table Total : 10 EXFOR : 10 Author : 0 Table : 0 Curve : 10 Unobt : 0

Data 2242

Title Fission of uranium-238 induced by 55 MeV protons
Author S.Shirato *et al.*
Reference J.Phys.Soc.Jpn. **19** (1964) 1809
Table Total : 2 EXFOR : 2 Author : 0 Table : 2 Curve : 1 Unobt : 0

Data 2244

Title Elastic and inelastic scatterings of polarized protons from Be9 and Al27
Author K.Fukunaga *et al.*
Reference J.Phys.Soc.Jpn. **20** (1965) 1
Table Total : 4 EXFOR : 4 Author : 0 Table : 4 Curve : 0 Unobt : 0

Data 2247

Title Elastic and inelastic scattering of 22.2 MeV alpha particles from some medium-weight nuclei
Author N.Takahashi *et al.*
Reference J.Phys.Soc.Jpn. **20** (1965) 1544
Table Total : 3 EXFOR : 2 Author : 0 Table : 1 Curve : 2 Unobt : 0

Data 2254

Title Elastic and inelastic scattering of deuteron from Be9, C12, N14 and O16 at 14 MeV
Author D.C.Nguyen *et al.*
Reference J.Phys.Soc.Jpn. **21** (1966) 2462
Table Total : 14 EXFOR : 14 Author : 0 Table : 4 Curve : 10 Unobt : 0

Data 2256

Title Energy spectra of inelastic scattering of 28.4-MeV alpha particles
Author I.Kumabe *et al.*
Reference J.Phys.Soc.Jpn. **23** (1967) 147
Table Total : 5 EXFOR : 5 Author : 0 Table : 0 Curve : 5 Unobt : 0

Data 2261

Title Quasi-free alpha-alpha scattering in Be9 and C12 at 37 MeV
Author T.Yanabu *et al.*
Reference J.Phys.Soc.Jpn. **24** (1968) 667
Table Total : 5 EXFOR : 5 Author : 0 Table : 0 Curve : 5 Unobt : 0

Data 2262

Title Elastic scattering of oxygen ions by boron 10 and 11
Author Y. Okuma *et al.*
Reference J.Phys.Soc.Jpn. **24** (1968) 677
Table Total : 4 EXFOR : 4 Author : 0 Table : 0 Curve : 4 Unobt : 0

Data 2307

Title A detailed study of low-lying levels of ^{184}W by means of the (d,p) reaction
Author A.Isoya *et al.*
Reference J.Phys.Soc.Jpn. **32** (1972) 886
Table Total : 4 EXFOR : 4 Author : 0 Table : 2 Curve : 2 Unobt : 0

Data 2308

Title Experimental investigation of the $^{91}\text{Zr}(p,t)^{89}\text{Zr}$ reaction at 51.7 MeV

Author T.Awaya *et al.*
Reference J.Phys.Soc.Jpn. **32** (1972) 1169
Table Total : 2 EXFOR : 2 Author : 0 Table : 1 Curve : 1 Unobt : 0

Data 2309

Title The $^{54}\text{Fe}(p,d)^{53}\text{Fe}$ reaction at 52 MeV
Author H.Ohnuma *et al.*
Reference J.Phys.Soc.Jpn. **32** (1972) 1466
Table Total : 1 EXFOR : 1 Author : 0 Table : 0 Curve : 1 Unobt : 0

Data 2313

Title One-proton coupled L=0 and 2 transitions in the $^{141}\text{Pr}(p,t)$ reaction
Author K.Yagi *et al.*
Reference J.Phys.Soc.Jpn. **33** (1972) 1482
Table Total : 1 EXFOR : 1 Author : 0 Table : 0 Curve : 1 Unobt : 0

Data 2319

Title The multi-step process in the $^{12}\text{C}(^3\text{He},a)^{11}\text{C}$ reaction
Author S.Yamaji *et al.*
Reference J.Phys.Soc.Jpn. **37** (1974) 1191
Table Total : 1 EXFOR : 1 Author : 0 Table : 0 Curve : 1 Unobt : 0

Data 2321

Title Elastic and inelastic scattering of ^{14}N and ^{12}C projectiles by ^{12}C and ^{28}Si
Author I.Kohno *et al.*
Reference J.Phys.Soc.Jpn. **38** (1975) 945
Table Total : 7 EXFOR : 7 Author : 0 Table : 0 Curve : 7 Unobt : 0

Data 2330

Title The $(^3\text{He},^3\text{He})$, $(^3\text{He},^3\text{He}')$ and $(^3\text{He},a)$ reactions on ^{12}C at 82.1 MeV
Author T.Tanabe *et al.*
Reference J.Phys.Soc.Jpn. **41** (1976) 361
Table Total : 3 EXFOR : 3 Author : 0 Table : 0 Curve : 3 Unobt : 0

Data 2373

Title Resonant photonuclear reactions for isotope transmutation
Author H.Ejiri *et al.*
Reference J.Phys.Soc.Jpn. **80** (2011) 094202
Table Total : 1 EXFOR : 1 Author : 0 Table : 1 Curve : 0 Unobt : 0

Data 2412

Title High-resolution $^{96}\text{Zr}(^3\text{He},t)$ experiment and the matrix element for double-beta decay
Author J.H.Thies *et al.*
Reference Phys.Rev.C **86** (2012) 054323
Table Total : 21 EXFOR : 21 Author : 0 Table : 1 Curve : 20 Unobt : 0

Data 2459

Title Excitation of giant monopole resonance in ^{208}Pb and ^{116}Sn using inelastic deuteron scattering
Author D.Patel *et al.*
Reference Phys.Lett.B **735** (2014) 387
Table Total : 7 EXFOR : 7 Author : 7 Table : 0 Curve : 0 Unobt : 0

Data 2475

Title Measurement of evaporation-residue cross sections with light beams and deformed lanthanide target nuclei
Author S.Ueno *et al.*
Reference J.Radioanal.Nucl.Chem. **303** (2015) 1273
Table Total : 5 EXFOR : 5 Author : 5 Table : 0 Curve : 0 Unobt : 0

Data 2483

Title Relativistic Coulomb excitation in ^{32}Mg near 200 MeV/nucleon with a thick target
Author K.Li *et al.*
Reference Phys.Rev.C **92** (2015) 014608
Table Total : 1 EXFOR : 1 Author : 1 Table : 0 Curve : 0 Unobt : 0

Data 2484

Title Splitting of ISGMR strength in the light-mass nucleus ^{24}Mg due to ground-state deformation
Author Y.K.Gupta *et al.*
Reference Phys.Lett.B **748** (2015) 343
Table Total : 12 EXFOR : 12 Author : 12 Table : 0 Curve : 0 Unobt : 0

Data 2485

Title Excitation functions of deuteron-induced nuclear reactions on natural platinum up to 24 MeV
Author M.U.Khandaker *et al.*
Reference Nucl.Instrum.Methods B **362** (2015) 151
Table Total : 14 EXFOR : 14 Author : 0 Table : 14 Curve : 0 Unobt : 0

Data 2486

Title Energy-dependent fragmentation cross sections of relativistic ^{12}C
Author T.Ogawa *et al.*
Reference Phys.Rev.C **92** (2015) 024614
Table Total : 8 EXFOR : 8 Author : 8 Table : 0 Curve : 0 Unobt : 0

Data 2487

Title Measurement of the $^{14}\text{O}(\alpha,p)^{17}\text{F}$ cross section at $E_{\text{cm}} = 2.1$ -
5.3 MeV
Author A.Kim *et al.*
Reference Phys.Rev.C **92** (2015) 035801
Table Total : 4 EXFOR : 4 Author : 0 Table : 2 Curve : 2 Unobt : 0

Data 2488

Title New findings on structure and production of ^{10}He from ^{11}Li with
the $(d,^3\text{He})$ reaction
Author A.Matta *et al.*
Reference Phys.Rev.C **92** (2015) 041302
Table Total : 3 EXFOR : 3 Author : 0 Table : 0 Curve : 3 Unobt : 0

Data 2489

Title Measurements of activation cross sections for the neutron dosime-
try at an energy range from 17.5 to 30 MeV by using the $^7\text{Li}(p,n)$
quasi-mono-energetic neutron source
Author Y.Uno *et al.*
Reference 9th International Symposium on Reactor Dosimetry (1996) 465
Table Total : 6 EXFOR : 6 Author : 6 Table : 0 Curve : 0 Unobt : 0

Data 2490

Title Characterization of high-energy quasi-monoenergetic neutron en-
ergy spectra and ambient dose equivalents of 80-389 MeV $^7\text{Li}(p,n)$
reactions using a time-of-flight method
Author Y.Iwamoto *et al.*
Reference Nucl.Instrum.Methods A **804** (2015) 50
Table Total : 19 EXFOR : 19 Author : 18 Table : 1 Curve : 0 Unobt : 0

Data 2491

Title Nonquenched Isoscalar Spin-M1 Excitations in sd-Shell Nuclei
Author H.Matsubara *et al.*
Reference Phys.Rev.Lett. **115** (2015) 102501
Table Total : 3 EXFOR : 3 Author : 2 Table : 0 Curve : 0 Unobt : 1

Data 2492

Title Measurements of deuteron-induced reaction cross-sections on natural nickel up to 24 MeV
Author A.R.Usman *et al.*
Reference Nucl.Instrum.Methods B **368** (2016) 112
Table Total : 9 EXFOR : 9 Author : 0 Table : 9 Curve : 0 Unobt : 0

Data 2493

Title Spallation reaction study for fission products in nuclear waste
Author H.Wang *et al.*
Reference Phys.Lett.B **754** (2016) 104
Table Total : 24 EXFOR : 24 Author : 24 Table : 0 Curve : 0 Unobt : 0

Data 2494

Title Effects of repulsive three-body force in $^{12}\text{C}+^{12}\text{C}$ scattering at 100A MeV
Author W.W.Qu *et al.*
Reference Phys.Lett.B **751** (2015) 1
Table Total : 3 EXFOR : 3 Author : 3 Table : 0 Curve : 0 Unobt : 0

Data 2495

Title One-neutron removal from ^{29}Ne
Author N.Kobayashi *et al.*
Reference Phys.Rev.C **93** (2016) 014613
Table Total : 7 EXFOR : 7 Author : 1 Table : 6 Curve : 0 Unobt : 0

Data 2496

Title Proton capture cross sections on neutron-magic ^{144}Sm at astrophysically relevant energies
Author N.Kinoshita *et al.*
Reference Phys.Rev.C **93** (2016) 025801
Table Total : 2 EXFOR : 2 Author : 0 Table : 2 Curve : 0 Unobt : 0

Data 2497

Title Measurement of the $^{77}\text{Se}(g,n)$ cross section and uncertainty evaluation of the $^{79}\text{Se}(n,g)$ cross section
Author F.Kitatani *et al.*
Reference J.Nucl.Sci.Technol. **53** (2016) 475
Table Total : 1 EXFOR : 1 Author : 0 Table : 1 Curve : 0 Unobt : 0

Data 2498

Title Neutrons from Thick Target Beryllium (d,n) Reactions at 1.0 MeV to 3.0 MeV
Author T.Inada *et al.*
Reference J.Nucl.Sci.Technol. **5** (1968) 22
Table Total : 1 EXFOR : 1 Author : 0 Table : 0 Curve : 1 Unobt : 0

Data 2499

Title Photodisintegration of ^9Be through the $1/2^+$ state and cluster dipole resonance
Author H.Utsunomiya *et al.*
Reference Phys.Rev.C **92** (2015) 064323
Table Total : 3 EXFOR : 3 Author : 2 Table : 1 Curve : 0 Unobt : 0

Data 2500

Title Candidate resonant tetra-neutron state populated by the $^4\text{He}(^8\text{He},^8\text{Be})$ reaction
Author K.Kisamori *et al.*
Reference Phys.Rev.Lett. **116** (2016) 052501
Table Total : 1 EXFOR : 1 Author : 0 Table : 1 Curve : 0 Unobt : 0

Data 2501

Title Measurement of proton-induced target fragmentation cross sections in carbon
Author K.Matsushita *et al.*
Reference Nucl.Phys.A **946** (2016) 104
Table Total : 2 EXFOR : 2 Author : 0 Table : 2 Curve : 0 Unobt : 0

Data 2502

Title Elastic scattering and breakup of ^{11}Be on protons at 26.9A MeV
Author J.Chen *et al.*
Reference Phys.Rev.C **93** (2016) 034623
Table Total : 2 EXFOR : 2 Author : 2 Table : 0 Curve : 0 Unobt : 0

Data 2503

Title Electromagnetic M1 transition strengths from inelastic proton scattering
Author J.Birkhan *et al.*
Reference Phys.Rev.C **93** (2016) 041302(R)
Table Total : 8 EXFOR : 8 Author : 6 Table : 0 Curve : 1 Unobt : 1

Data 2504

Title Mapping the deformation in the "island of inversion"

Author P.Doornenbal *et al.*
 Reference Phys.Rev.C **93** (2016) 044306
 Table Total : 4 EXFOR : 4 Author : 0 Table : 4 Curve : 0 Unobt : 0

Data 2508

Title Detection and identification of 8Be nuclei with a position sensitive detector and a counter telescope
 Author T.Ooi *et al.*
 Reference SCP **52** (1976) 145
 Table Total : 3 EXFOR : 3 Author : 0 Table : 1 Curve : 0 Unobt : 0

今年度採録した論文の実験データが得られた研究所を表2に示す。

表 2: 実験実施研究所内訳

産業技術総合研究所	1 件
理化学研究所	12 件
放射線医学総合研究所	3 件
日本原子力研究開発機構	1 件
高輝度光科学研究センター	2 件
京都大学	8 件
九州大学	3 件
大阪大学	14 件
東京大学	14 件