

F D Becchetti

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Applications of high-speed digital pulse acquisition and software-defined electronics (SDE) in advanced nuclear teaching laboratories. American Journal of Physics, 2020, 88, 70-80.	0.3	2
2	Dominance of direct reaction channels at deep sub-barrier energies for weakly bound nuclei on heavy targets: The case $B + \text{Pb}$. Physical Review C, 2017, 96, .	1.1	23
3	Proton spectroscopic strengths of ^{18}Ne . AIP Conference Proceedings, 2019, , .	0.3	1
4	(d,n) proton-transfer reactions on ^9Be , ^{11}B , ^{13}C , ^{14}N , ^{15}N , and ^{19}F and spectroscopic factors at $E_d=16\text{MeV}$. Physical Review C, 2017, 96, .	1.1	10
5	Sub-barrier fusion of weakly bound ^6Li with ^{58}Ni . Physical Review C, 2017, 96, .	1.1	10
6	A multi-functional apparatus for \hat{I}^\pm and \hat{I}^2 spectroscopy utilizing a permanent ring-magnet \hat{I}^2 spectrometer. American Journal of Physics, 2016, 84, 883-893.	0.3	1
7	Colliding nuclei to colliding galaxies: Illustrations using a simple colliding liquid-drop apparatus. American Journal of Physics, 2015, 83, 846-856.	0.3	3
8	Comment on ^{252}Cf fission-neutron spectrum using a simplified time-of-flight setup: An advanced teaching laboratory experiment [Am. J. Phys. 81, 112-119 (2013)]. American Journal of Physics, 2014, 82, 706-706.	0.3	1
9	Near- and sub-barrier fusion of the $^7\text{Be} + ^{58}\text{Ni}$ system. Physical Review C, 2014, 90, .	1.1	17
10	Neutron Spectroscopy Without Time-of-Flight Measurement: A DSP-Based Deuterated Scintillator Array. IEEE Transactions on Nuclear Science, 2013, 60, 890-896.	1.2	7
11	^{252}Cf fission-neutron spectrum using a simplified time-of-flight setup: An advanced teaching laboratory experiment. American Journal of Physics, 2013, 81, 112-119.	0.3	9
12	Proton pair correlations and the neutrinoless double- \hat{I}^2 decay of ^{76}Ge . Physical Review C, 2013, 87, .	1.1	13
13	Elastic scattering and total reaction cross sections for the $B + \text{Pb}$ system. Physical Review C, 2013, 87, .	1.1	47
14	Evaporation protons from $^8\text{B} + ^{58}\text{Ni}$ at near barrier energies. Journal of Physics: Conference Series, 2011, 322, 012007.	0.3	0
15	Near-Barrier Fusion of the $^8\text{B} + ^{58}\text{Ni}$ Proton-Halo System. Physical Review Letters, 2011, 107, 092701.	2.9	81
16	Hindrance of complete fusion in the $^7\text{Li} + \text{Pb}$ system. Physical Review C, 2011, 83, 044607.	1.1	27
17	Evaporation protons from $^7\text{Li} + ^{58}\text{Ni}$ at near barrier energies. Journal of Physics: Conference Series, 2011, 322, 012007.	1.1	169
18	Neutron transfer reactions induced by ^8Li on ^9Be . Physical Review C, 2007, 75, .	1.1	31

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19	Breakup of ${}^6\text{He}$ incident on ${}^{209}\text{Bi}$ near the Coulomb barrier. <i>Physical Review C</i> , 2007, 75, .	1.1	54
20	${}^7\text{Be}$ -induced $\hat{1}\pm$ -transfer reaction on ${}^{12}\text{C}$. <i>European Physical Journal: Special Topics</i> , 2007, 150, 1-4.	1.2	4
21	Reaction and proton-removal cross sections of ${}^6\text{Li}$, ${}^7\text{Be}$, ${}^{10}\text{B}$, ${}^{11}\text{C}$, ${}^{11}\text{N}$, ${}^{12}\text{O}$, ${}^{13}\text{O}$, ${}^{15}\text{N}$, and ${}^{17}\text{Ne}$ on Si at 15 to 53 MeV/nucleon. <i>Physical Review C</i> , 2006, 74, .	1.1	35
22	Isobaric analog states of neutron-rich nuclei. Doppler shift as a measurement tool for resonance excitation functions. <i>European Physical Journal A</i> , 2005, 25, 259-260.	1.0	0
23	Two-neutron transfer in the ${}^6\text{He}+{}^{209}\text{Bi}$ reaction near the Coulomb barrier. <i>Physical Review C</i> , 2005, 71, .	1.1	83
24	The $({}^8\text{Li}, \hat{1}\pm)$ reaction at low energy: Direct ${}^4\text{He}$ cluster transfer?. <i>Physical Review C</i> , 2005, 71, .	1.1	3
25	Doppler Shift as a Tool for Studies of Isobaric Analog States of Neutron-Rich Nuclei: Application to ${}^7\text{He}$. <i>Physical Review Letters</i> , 2005, 95, 132502.	2.9	19
26	Isobaric analog states of neutron-rich nuclei. Doppler shift as a measurement tool for resonance excitation functions. , 2005, , 259-260.		0
27	Analog States of ${}^7\text{He}$ Observed via the ${}^6\text{He}(p,n)$ Reaction. <i>Physical Review Letters</i> , 2004, 92, 232502.	2.9	41
28	Elastic scattering of ${}^{10}\text{Be}$ on ${}^{208}\text{Pb}$ near the Coulomb barrier. <i>Physical Review C</i> , 2004, 69, .	1.1	24
29	Proton removal from ${}^8\text{B}$, ${}^9\text{C}$, and ${}^{12}\text{C}$ on Si at $20\text{--}70\text{ MeV/nucleon}$. <i>Physical Review C</i> , 2004, 69, .	1.1	8
30	Final state interaction or a ${}^3\text{He}$ excited state?. <i>Physical Review C</i> , 2003, 68, .	1.1	5
31	Energy dependence of the total reaction cross section of isomeric ${}^{18}\text{F}$ on silicon below 400 MeV. <i>Physical Review C</i> , 2002, 65, .	1.1	6
32	Elastic scattering and transfer in the ${}^8\text{Li}+{}^{208}\text{Pb}$ system near the Coulomb barrier. <i>Physical Review C</i> , 2002, 65, .	1.1	43
33	NUCLEAR FUSION: Evidence for Nuclear Reactions in Imploding Bubbles. <i>Science</i> , 2002, 295, 1850-1850.	6.0	5
34	Breakup of ${}^8\text{B}$ at sub-Coulomb energies. <i>Physical Review C</i> , 2001, 63, .	1.1	48
35	An apparatus for applying strong longitudinal magnetic fields to clinical photon and electron beams. <i>Physics in Medicine and Biology</i> , 2001, 46, N105-N115.	1.6	31
36	Magnetic confinement of radiotherapy beam-dose profiles. <i>AIP Conference Proceedings</i> , 2001, , .	0.3	1

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37	Elastic scattering and transfer in the ${}^6\text{He}+{}^{209}\text{Bi}$ system below the Coulomb barrier. <i>Physical Review C</i> , 2001, 63, .	1.1	162
38	Total reaction and neutron-removal cross sections of $({}^{30}\text{A}^{60})\text{A}^{60}\text{MeVBe}$ isotopes on Si and Pb. <i>Physical Review C</i> , 2001, 64, .	1.1	16
39	Proton elastic scattering from ${}^7\text{Be}$ at low energies. <i>Physical Review C</i> , 2001, 64, .	1.1	32
40	Angular momentum in the ${}^6\text{He}+{}^{209}\text{Bi}$ reaction deduced from isomer ratio measurements. <i>Physical Review C</i> , 2000, 62, .	1.1	12
41	Transfer and/or Breakup Modes in the ${}^6\text{He}+{}^{209}\text{Bi}$ Reaction near the Coulomb Barrier. <i>Physical Review Letters</i> , 2000, 84, 5058-5061.	2.9	185
42	Nuclear and Coulomb Interaction in ${}^8\text{B}$ Breakup at Sub-Coulomb Energies. <i>Physical Review Letters</i> , 2000, 84, 1862-1865.	2.9	88
43	Total reaction and neutron-removal cross sections of $({}^{30}\text{A}^{60})\text{A}^{60}\text{MeVHe}$ and Li isotopes on Pb. <i>Physical Review C</i> , 2000, 62, .	1.1	22
44	On-line monitoring of radiotherapy beams: Experimental results with proton beams. <i>Medical Physics</i> , 1999, 26, 992-1006.	1.6	95
45	Sub-barrier Fusion of ${}^6\text{He}$ with ${}^{209}\text{Bi}$. <i>Physical Review Letters</i> , 1998, 81, 4580-4583.	2.9	253
46	${}^6\text{He}+{}^{209}\text{Bi}$ fusion-fission reaction. <i>Physical Review C</i> , 1998, 57, R6-R9.	1.1	38
47	Total reaction and $2n$ -removal cross sections of ${}^{20}\text{A}^{60}\text{A}^{60}\text{MeVHe}_{4,6,8}, \text{Li}_{6,9,11}$, and Be_{10} on Si. <i>Physical Review C</i> , 1996, 54, 1700-1709.	1.1	79
48	Reply to "Comment on "4H clustering in lithium nuclei". <i>Physical Review C</i> , 1995, 52, 1142-1142.	1.1	2
49	Proton scattering from an excited nucleus (${}^{18}\text{F}$, $J^\pi=5^+$, $E_x=1.1$ MeV) using a $\hat{\text{I}}^3$ -ray-tagged secondary isomeric nuclear beam. <i>Physical Review C</i> , 1995, 51, 1312-1319.	1.1	7
50	Unique potentials for the elastic scattering of 350 MeV ${}^7\text{Li}$ from ${}^{12}\text{C}$ and ${}^{28}\text{Si}$. <i>Physical Review C</i> , 1995, 52, 1894-1899.	1.1	31
51	Evidence for a proton halo in ${}^8\text{B}$: Enhanced total reaction cross sections at 20 to 60 MeV/nucleon. <i>Physical Review C</i> , 1995, 52, R1166-R1170.	1.1	95
52	Elastic scattering of 10 MeV ${}^6\text{He}$ from ${}^{12}\text{C}$, ${}^{19}\text{F}$, and ${}^{197}\text{Au}$. <i>Physical Review C</i> , 1995, 51, 178-181.	1.1	24
53	Reply to "Comment on "Elastic scattering of 318 MeV ${}^6\text{Li}$ from ${}^{12}\text{C}$ and ${}^{28}\text{Si}$: Unique phenomenological and folding-model potentials" and the validity of the M3Y effective interaction". <i>Physical Review C</i> , 1994, 49, 2258-2260.	1.1	7
54	Systematics of induced β -radioactive beam reactions: $E=13$ to 20 MeV. <i>Physical Review C</i> , 1993, 48, 308-318.	1.1	28

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55	Cross section for the primordial reaction $\text{Li}^8(\text{p},\text{n})^8\text{Be}$ (g.s.) at $E_{\text{c.m.}}=1.5$ MeV. <i>Physical Review C</i> , 1993, 47, 387-391.	1.1	5
56	H^2 induced reactions on Li^8 and primordial nucleosynthesis. <i>Physical Review Letters</i> , 1993, 71, 3931-3934.	2.9	10
57	Elastic scattering of 318 MeV Li^6 from C^{12} and Si^{28} : Unique phenomenological and folding-model potentials. <i>Physical Review C</i> , 1993, 47, 674-681.	1.1	56
58	Light particle emission near 0° in the reaction $\text{Ne}^{20} + ^{181}\text{Ta}$ at $E/A=85$ MeV. <i>Physical Review C</i> , 1992, 45, 726-737.	1.1	2
59	Coulomb excitation of Li^8 . <i>Physical Review Letters</i> , 1991, 66, 2452-2455.	2.9	28
60	Scattering of He^6 from Au^{197} , Tin^{117} , Al^{27} , C^{nat} , and Be^9 at $E=8\text{--}9$ MeV. <i>Physical Review C</i> , 1991, 43, 761-765.	1.1	34
61	Elastic and inelastic scattering of Li^8 from C^{12} . <i>Physical Review C</i> , 1991, 43, 2346-2352.	1.1	17
62	Production of an isomeric, excited radioactive nuclear beam. <i>Physical Review C</i> , 1990, 42, R801-R803.	1.1	11
63	Very-high-energy light charged-particle production near 0° in heavy-ion collisions, $9\text{--}40$ MeV. <i>Physical Review C</i> , 1990, 42, 1519-1529.	1.1	4
64	Energy and flux limits of cold-fusion neutrons using a deuterated liquid scintillator. <i>Physical Review C</i> , 1990, 42, R1809-R1812.	1.1	2
65	Measurements of discrete nuclear reactions induced by a radioactive Li^8 beam. <i>Physical Review C</i> , 1989, 40, R1104-R1107.	1.1	17
66	Large-aperture, axially symmetric ion-optical lens systems using new types of electrostatic and magnetic elements. <i>Review of Scientific Instruments</i> , 1989, 60, 1228-1232.	0.6	6
67	Inelastic scattering of 210 MeV Li^6 ions from C^{12} , Si^{28} , and Ni^{58} : Test of unique Li^6 potentials. <i>Physical Review C</i> , 1989, 40, 1237-1243.	1.1	16
68	Unique nucleus optical potentials from elastic scattering of 210 MeV Li^6 ions by Si^{28} , Ca^{40} , Zr^{90} , and Pb^{208} . <i>Physical Review C</i> , 1989, 39, 536-545.	1.1	58
69	Elastic scattering of 210 MeV Li^6 ions from C^{12} and Ni^{58} and unique nucleus optical potentials. <i>Physical Review C</i> , 1988, 37, 132-138.	1.1	60
70	Focusing of multiply charged energetic ions using solenoidal B and radial E lenses. <i>Review of Scientific Instruments</i> , 1987, 58, 220-222.	0.6	5
71	Tests of a large air-core superconducting solenoid as a nuclear reaction product spectrometer. <i>Review of Scientific Instruments</i> , 1987, 58, 1682-1693.	0.6	14
72	Fission of heavy nuclei induced by energetic pions. <i>Physical Review C</i> , 1985, 31, 1323-1333.	1.1	20

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73	LCD devices for overhead projectors. American Journal of Physics, 1984, 52, 467-467.	0.3	1
74	190 MeV proton-induced symmetric and asymmetric fission. Physical Review C, 1983, 28, 276-279.	1.1	23
75	He3-induced fission of nuclei $^{159}A < 232$. Physical Review C, 1983, 28, 1217-1223.	1.1	10
76	Selective excitations of α -cluster states in Nd^{150} . Physical Review C, 1982, 26, 405-410.	1.1	10
77	Optical potential for Li^6 elastic scattering at 99 MeV. Physical Review C, 1981, 24, 1522-1528.	1.1	51
78	Student experiments in spontaneous fission. American Journal of Physics, 1981, 49, 1162-1171.	0.3	4
79	Selective excitations in actinide nuclei via alpha pickup. Physical Review C, 1981, 23, 101-111.	1.1	26
80	Systematics of (α, C^{12}) in light nuclei and implications for multi- α -cluster transfer reactions. Physical Review C, 1980, 21, 444-447.	1.1	4
81	α -clustering in Pb^{208} from (d, Li^6) at $E_d = 55$ MeV. Physical Review C, 1979, 19, 1775-1781.	1.1	7
82	Energy dependence of elastic scattering and one-nucleon transfer reactions induced by O^{16} on Pb^{208} . I. Physical Review C, 1978, 18, 180-204.	1.1	50
83	Neutron Blocking in α -Particle-Transfer Reactions. Physical Review Letters, 1975, 35, 268-270.	2.9	15
84	$Pb^{208}(O^{16}, O^{15})Pb^{209}$ reaction. Physical Review C, 1975, 12, 894-900.	1.1	10
85	$O^{16,18}(\alpha, \alpha He^6)O^{14,16}$ reactions. Physical Review C, 1975, 11, 734-737.	1.1	1
86	Systematics of the (d, Li^6) Reaction and α -Clustering in Heavy Nuclei. Physical Review Letters, 1975, 34, 225-227.	2.9	57
87	$O^{18}(\alpha, \alpha He^8)O^{14}$ reaction. Physical Review C, 1975, 11, 2114-2116.	1.1	12
88	(O^{16}, N^{15}) and (C^{12}, B^{11}) reactions on Fe^{54} and Ni^{62} at $E(O^{16}) = 104$ MeV and $E(C^{12}) = 78$ MeV. Physical Review C, 1974, 10, 1846-1855.	1.1	9
89	Two-proton-transfer reactions $Pb^{208}(C^{12}, Be^{10})Po^{210}$ and $Pb^{208}(O^{16}, C^{14})Po^{210}$. Physical Review C, 1974, 9, 1543-1567.	1.1	14
90	Heavy-Ion-Induced Single-Nucleon Transfer Reactions in the Zr-Mo Region. Physical Review C, 1973, 8, 1866-1891.	1.1	44

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91	Evidence for Recoil Effects in Heavy-Ion Transfer Reactions. Physical Review Letters, 1973, 30, 1075-1078.	2.9	46
92	jDependence of Heavy-Ion ²⁷ Induced Reactions. Physical Review Letters, 1972, 29, 1023-1027.	2.9	49
93	Study of One- and Two-Nucleon Transfer Reactions Induced by ¹⁶ O Ions Incident on the Even Zr Isotopes. Physical Review Letters, 1971, 26, 1267-1270.	2.9	32
94	NUCLEAR TRANSFER REACTIONS INDUCED BY ¹⁶ O-IONS ON NUCLEI IN THE f-p SHELL. Journal De Physique Colloque, 1971, 32, C6-225-C6-227.	0.2	1
95	Nucleon-Nucleus Optical-Model Parameters, $A > 40, E < 50$ MeV. Physical Review, 1969, 182, 1190-1209.	2.7	2,185