

F D Becchetti

List of Publications by Year in descending order

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96
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1263
citing authors

#	ARTICLE	IF	CITATIONS
1	Nucleon-Nucleus Optical-Model Parameters, $A > 40, E < 50 \text{ MeV}$. Physical Review, 1969, 182, 1190-1209.	2.7	2,185
2	Sub-barrier Fusion of ^6He with ^{209}Bi . Physical Review Letters, 1998, 81, 4580-4583.	2.9	253
3	Transfer and/or Breakup Modes in the $^6\text{He} + ^{209}\text{Bi}$ Reaction near the Coulomb Barrier. Physical Review Letters, 2000, 84, 5058-5061.	2.9	185
4	Reaction cross sections for $^6\text{He} + ^{209}\text{Bi}$. Physical Review Letters, 2000, 84, 5058-5061.	1.1	169
5	Elastic scattering and transfer in the $^6\text{He} + ^{209}\text{Bi}$ system below the Coulomb barrier. Physical Review C, 2001, 63, .	1.1	162
6	Evidence for a proton halo in ^8B : Enhanced total reaction cross sections at 20 to 60 MeV/nucleon. Physical Review C, 1995, 52, R1166-R1170.	1.1	95
7	On-line monitoring of radiotherapy beams: Experimental results with proton beams. Medical Physics, 1999, 26, 992-1006.	1.6	95
8	Nuclear and Coulomb Interaction in ^8B Breakup at Sub-Coulomb Energies. Physical Review Letters, 2000, 84, 1862-1865.	2.9	88
9	Two-neutron transfer in the $^6\text{He} + ^{209}\text{Bi}$ reaction near the Coulomb barrier. Physical Review C, 2005, 71, .	1.1	83
10	Near-Barrier Fusion of the $^8\text{B} + ^{58}\text{Ni}$ Proton-Halo System. Physical Review Letters, 2011, 107, 092701.	2.9	81
11	Total reaction and 2n-removal cross sections of ^{20}He on $^4\text{He}, ^6\text{Li}, ^8\text{Li}, ^9\text{Li}, ^{11}\text{Li}$, and ^{10}Be on Si. Physical Review C, 1996, 54, 1700-1709.	1.1	79
12	Elastic scattering of 210 MeV ^6Li ions from ^{12}C and ^{58}Ni and unique nucleus optical potentials. Physical Review C, 1988, 37, 132-138.	1.1	60
13	Unique nucleus optical potentials from elastic scattering of 210 MeV ^6Li ions by $^{28}\text{Si}, ^{40}\text{Ca}, ^{90}\text{Zr}$, and ^{208}Pb . Physical Review C, 1989, 39, 536-545.	1.1	58
14	Systematics of the $(d, ^6\text{Li})$ Reaction and α -Clustering in Heavy Nuclei. Physical Review Letters, 1975, 34, 225-227.	2.9	57
15	Elastic scattering of 318 MeV ^6Li from ^{12}C and ^{28}Si : Unique phenomenological and folding-model potentials. Physical Review C, 1993, 47, 674-681.	1.1	56
16	Breakup of ^6He incident on ^{209}Bi near the Coulomb barrier. Physical Review C, 2007, 75, .	1.1	54
17	Optical potential for ^6Li elastic scattering at 99 MeV. Physical Review C, 1981, 24, 1522-1528.	1.1	51
18	Energy dependence of elastic scattering and one-nucleon transfer reactions induced by ^{16}O on ^{208}Pb . I. Physical Review C, 1978, 18, 180-204.	1.1	50

#	ARTICLE	IF	CITATIONS
19	jDependence of Heavy-Ion Induced Reactions. Physical Review Letters, 1972, 29, 1023-1027.	2.9	49
20	Breakup of ^8B at sub-Coulomb energies. Physical Review C, 2001, 63, .	1.1	48
21	Elastic scattering and total reaction cross sections for the $^8\text{B} + ^{208}\text{Pb}$ system at above	1.1	47
22	Evidence for Recoil Effects in Heavy-Ion Transfer Reactions. Physical Review Letters, 1973, 30, 1075-1078.	2.9	46
23	Heavy-Ion-Induced Single-Nucleon Transfer Reactions in the Zr-Mo Region. Physical Review C, 1973, 8, 1866-1891.	1.1	44
24	Elastic scattering and transfer in the $^8\text{Li} + ^{208}\text{Pb}$ system near the Coulomb barrier. Physical Review C, 2002, 65, .	1.1	43
25	Analog States of ^7He Observed via the $^6\text{He}(p,n)$ Reaction. Physical Review Letters, 2004, 92, 232502.	2.9	41
26	$^6\text{He} + ^{209}\text{Bi}$ fusion-fission reaction. Physical Review C, 1998, 57, R6-R9.	1.1	38
27	Reaction and proton-removal cross sections of $^6\text{Li}, ^7\text{Be}, ^{10}\text{B}, ^{11}\text{C}, ^{12}\text{N}, ^{13}\text{O}, ^{15}\text{N}$ and ^{17}Ne on Si at 15 to 53 MeV/nucleon. Physical Review C, 2006, 74, .	1.1	35
28	Scattering of ^6He from $^{197}\text{Au}, ^{209}\text{Bi}, ^{208}\text{Pb}, ^{209}\text{At}$, and ^9Be at $E = 8 - 9$ MeV. Physical Review C, 1991, 43, 761-765.	1.1	34
29	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
30	Proton elastic scattering from ^7Be at low energies. Physical Review C, 2001, 64, .	1.1	32
31	Unique potentials for the elastic scattering of 350 MeV ^7Li from ^{12}C and ^{28}Si . Physical Review C, 1995, 52, 1894-1899.	1.1	31
32	An apparatus for applying strong longitudinal magnetic fields to clinical photon and electron beams. Physics in Medicine and Biology, 2001, 46, N105-N115.	1.6	31
33	Neutron transfer reactions induced by ^8Li on ^9Be . Physical Review C, 2007, 75, .	1.1	31
34	Coulomb excitation of ^8Li . Physical Review Letters, 1991, 66, 2452-2455.	2.9	28
35	Systematics of induced ^8Li radioactive beam reactions: $E = 13 - 20$ MeV. Physical Review C, 1993, 48, 308-318.	1.1	28
36	Hindrance of complete fusion in the $^8\text{Li} + ^{208}\text{Pb}$ system at above	2.9	27

#	ARTICLE	IF	CITATIONS
37	Selective excitations in actinide nuclei via alpha pickup. Physical Review C, 1981, 23, 101-111.	1.1	26
38	Elastic scattering of 10 MeVHe6fromC12,Ninat, andAu197. Physical Review C, 1995, 51, 178-181.	1.1	24
39	Elastic scattering ofBe10onPb208near the Coulomb barrier. Physical Review C, 2004, 69, .	1.1	24
40	190 MeV proton-induced symmetric and asymmetric fission. Physical Review C, 1983, 28, 276-279. Dominance of direct reaction channels at deep sub-barrier energies for weakly bound nuclei on heavy targets: The case	1.1	23
41	xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi mathvariant="normal">B</mml:mi><mml:mprescripts /><mml:none /><mml:mn>8</mml:mn></mml:mn></mml:mmultiscripts><mml:mo>+</mml:mo><mml:mmultiscripts><mml:mi>Pb</mml:mi><mml:mprescripts /><mml:none /><mml:mn>208</mml:mn></mml:mmultiscripts></mml:mrow></mml:math>. Physical Review C, 2004, 69, .	1.1	23
42	Total reaction and neutron-removal cross sections of(30â€“60)AMeVHe and Li isotopes on Pb. Physical Review C, 2000, 62, .	1.1	22
43	Fission of heavy nuclei induced by energetic pions. Physical Review C, 1985, 31, 1323-1333.	1.1	20
44	Doppler Shift as a Tool for Studies of Isobaric Analog States of Neutron-Rich Nuclei: Application toHe7. Physical Review Letters, 2005, 95, 132502.	2.9	19
45	Measurements of discrete nuclear reactions induced by a radioactiveLi8beam. Physical Review C, 1989, 40, R1104-R1107.	1.1	17
46	Elastic and inelastic scattering ofLi8fromC12. Physical Review C, 1991, 43, 2346-2352.	1.1	17
47	Near- and sub-barrier fusion of theBe7+Ni58system. Physical Review C, 2014, 90, .	1.1	17
48	Inelastic scattering of 210 MeVLi6ions fromC12,Si28, andNi58: Test of uniqueLi6potentials. Physical Review C, 1989, 40, 1237-1243.	1.1	16
49	Total reaction and neutron-removal cross sections of(30â€“60)Aâ€“,MeVBe isotopes on Si and Pb. Physical Review C, 2001, 64, .	1.1	16
50	Neutron Blocking inÎ±-Particle-Transfer Reactions. Physical Review Letters, 1975, 35, 268-270.	2.9	15
51	Two-proton-transfer reactionsPb208(C12,Be10)Po210andPb208(O16,C14)Po210. Physical Review C, 1974, 9, 1543-1567.	1.1	14
52	Tests of a large airâ€“core superconducting solenoid as a nuclearâ€“reactionâ€“product spectrometer. Review of Scientific Instruments, 1987, 58, 1682-1693.	0.6	14
53	Proton pair correlations and the neutrinoless double-Î²decay of76Ge. Physical Review C, 2013, 87, .	1.1	13
54	O18(Î±,â€“He8)O14reaction. Physical Review C, 1975, 11, 2114-2116.	1.1	12

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55	Angular momentum in the $^6\text{He}+^{209}\text{Bi}$ reaction deduced from isomer ratio measurements. Physical Review C, 2000, 62, .	1.1	12
56	Production of an isomeric, excited radioactive nuclear beam. Physical Review C, 1990, 42, R801-R803.	1.1	11
57	$\text{Pb}^{208}(\text{O}^{16},\text{O}^{15})\text{Pb}^{209}$ reaction. Physical Review C, 1975, 12, 894-900.	1.1	10
58	Selective excitations of α -cluster states in Nd^{150} . Physical Review C, 1982, 26, 405-410.	1.1	10
59	He^3 -induced fission of nuclei $^{159}\text{A}<232$. Physical Review C, 1983, 28, 1217-1223.	1.1	10
60	H^2 induced reactions on Li^8 and primordial nucleosynthesis. Physical Review Letters, 1993, 71, 3931-3934.	2.9	10
61	(d,n) proton-transfer reactions on $\text{Be}^9, \text{B}^{11}, \text{C}^{13}, \text{N}^{14,15}$, and F^{19} and spectroscopic factors at $E_d=16\text{MeV}$. Physical Review C, 2017, 96, .	1.1	10
62	Sub-barrier fusion of weakly bound ^6Li with ^6Li and ^6Li with ^6Li . Physical Review C, 2017, 96, .	1.1	10
63	($\text{O}^{16},\text{N}^{15}$) and ($\text{C}^{12},\text{B}^{11}$) reactions on Fe^{54} and Ni^{62} at $E(\text{O}^{16})=104\text{MeV}$ and $E(\text{C}^{12})=78\text{MeV}$. Physical Review C, 1974, 10, 1846-1855.	1.1	9
64	^{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
65	Proton removal from B^8, C^9 , and C^{12} on Si at $20\text{A} \sim 70\text{MeV}$ per nucleon. Physical Review C, 2004, 69, .	1.1	8
66	α -clustering in Pb^{208} from (d, Li^6) at $E_d=55\text{MeV}$. Physical Review C, 1979, 19, 1775-1781.	1.1	7
67	Reply to α -Comment on α -Elastic scattering of 318MeV ^6Li from C^{12} and Si^{28} : Unique phenomenological and folding-model potentials and the validity of the M3Y effective interaction. Physical Review C, 1994, 49, 2258-2260.	1.1	7
68	Proton scattering from an excited nucleus ($^{18}\text{Fm}, J^\pi=5^+, E_x=1.1\text{MeV}$) using a β -ray-tagged secondary isomeric nuclear beam. Physical Review C, 1995, 51, 1312-1319.	1.1	7
69	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
70	Large aperture, axially symmetric ion optical lens systems using new types of electrostatic and magnetic elements. Review of Scientific Instruments, 1989, 60, 1228-1232.	0.6	6
71	Energy dependence of the total reaction cross section of isomeric ^{18}Fm on silicon below 400MeV . Physical Review C, 2002, 65, .	1.1	6
72	Focusing of multiply charged energetic ions using solenoidal B and radial E lenses. Review of Scientific Instruments, 1987, 58, 220-222.	0.6	5

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73	Cross section for the primordial reaction $Li8(p,n)8Be$ (g.s.) at $E_{c.m.}=1.5$ MeV. <i>Physical Review C</i> , 1993, 47, 387-391.	1.1	5
74	NUCLEAR FUSION: Evidence for Nuclear Reactions in Imploding Bubbles. <i>Science</i> , 2002, 295, 1850-1850.	6.0	5
75	Final state interaction or 3He excited state?. <i>Physical Review C</i> , 2003, 68, .	1.1	5
76	Systematics of $(\hat{I}_{\pm}, C12)$ in light nuclei and implications for multi- \hat{I}_{\pm} -cluster transfer reactions. <i>Physical Review C</i> , 1980, 21, 444-447.	1.1	4
77	Student experiments in spontaneous fission. <i>American Journal of Physics</i> , 1981, 49, 1162-1171.	0.3	4
78	Very-high-energy light charged-particle production near 0° in heavy-ion collisions, $9 \leq E/A \leq 40$ MeV. <i>Physical Review C</i> , 1990, 42, 1519-1529.	1.1	4
79	7Be -induced \hat{I}_{\pm} -transfer reaction on ^{12}C . <i>European Physical Journal: Special Topics</i> , 2007, 150, 1-4.	1.2	4
80	The $(Li8, \hat{I}_{\pm})$ reaction at low energy: Direct $H4$ cluster transfer?. <i>Physical Review C</i> , 2005, 71, .	1.1	3
81	Colliding nuclei to colliding galaxies: Illustrations using a simple colliding liquid-drop apparatus. <i>American Journal of Physics</i> , 2015, 83, 846-856.	0.3	3
82	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
83	Light particle emission near 0° in the reaction $Ne20+^{181}Ta$ at $E/A=85$ MeV. <i>Physical Review C</i> , 1992, 45, 726-737.	1.1	2
84	Reply to "Comment on "4H clustering in lithium nuclei". <i>Physical Review C</i> , 1995, 52, 1142-1142.	1.1	2
85	Applications of high-speed digital pulse acquisition and software-defined electronics (SDE) in advanced nuclear teaching laboratories. <i>American Journal of Physics</i> , 2020, 88, 70-80.	0.3	2
86	$O16, ^{18}(\hat{I}_{\pm}, ^4He6)O14, ^{16}$ reactions. <i>Physical Review C</i> , 1975, 11, 734-737.	1.1	1
87	LCD devices for overhead projectors. <i>American Journal of Physics</i> , 1984, 52, 467-467.	0.3	1
88	Magnetic confinement of radiotherapy beam-dose profiles. <i>AIP Conference Proceedings</i> , 2001, , .	0.3	1
89	Comment on "252Cf fission-neutron spectrum using a simplified time-of-flight setup: An advanced teaching laboratory experiment". [<i>Am. J. Phys.</i> 81, 112 (2013)]. <i>American Journal of Physics</i> , 2014, 82, 706-706.	0.3	1
90	A multi-functional apparatus for \hat{I}_{\pm} and \hat{I}^2 spectroscopy utilizing a permanent ring-magnet \hat{I}^2 spectrometer. <i>American Journal of Physics</i> , 2016, 84, 883-893.	0.3	1

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91	Proton spectroscopic strengths of ^{18}Ne . AIP Conference Proceedings, 2019, , .	0.3	1
92	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
93	Isobaric analog states of neutron-rich nuclei. Doppler shift as a measurement tool for resonance excitation functions. European Physical Journal A, 2005, 25, 259-260.	1.0	0
94	Evaporation protons from $^{8}\text{B}+^{58}\text{Ni}$ at near barrier energies. Journal of Physics: Conference Series, 2011, 322, 012007.	0.3	0
95	Isobaric analog states of neutron-rich nuclei. Doppler shift as a measurement tool for resonance excitation functions. , 2005, , 259-260.		0