

A E Dangor

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

120
papers

11,735
citations

52
h-index

108
g-index

133
ext. papers

12,594
ext. citations

5.7
avg, IF

4.87
L-index

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 120 | Monoenergetic beams of relativistic electrons from intense laser-plasma interactions. <i>Nature</i> , 2004 , 431, 535-8 | 50.4 | 1444 |
| 119 | Fast heating of ultrahigh-density plasma as a step towards laser fusion ignition. <i>Nature</i> , 2001 , 412, 798-802 | 50.4 | 780 |
| 118 | Electron acceleration from the breaking of relativistic plasma waves. <i>Nature</i> , 1995 , 377, 606-608 | 50.4 | 656 |
| 117 | Measurements of energetic proton transport through magnetized plasma from intense laser interactions with solids. <i>Physical Review Letters</i> , 2000 , 84, 670-3 | 7.4 | 595 |
| 116 | A study of picosecond laser-solid interactions up to 10^{19} W cm ⁻² . <i>Physics of Plasmas</i> , 1997 , 4, 447-457 | 2.1 | 537 |
| 115 | Electron acceleration by a wake field forced by an intense ultrashort laser pulse. <i>Science</i> , 2002 , 298, 1596-1600 | 50.4 | 489 |
| 114 | Energetic heavy-ion and proton generation from ultraintense laser-plasma interactions with solids. <i>Physical Review Letters</i> , 2000 , 85, 1654-7 | 7.4 | 407 |
| 113 | Effect of discrete wires on the implosion dynamics of wire array Z pinches. <i>Physics of Plasmas</i> , 2001 , 8, 3734-3747 | 2.1 | 270 |
| 112 | Efficient extreme UV harmonics generated from picosecond laser pulse interactions with solid targets. <i>Physical Review Letters</i> , 1996 , 76, 1832-1835 | 7.4 | 269 |
| 111 | Photonuclear physics when a multiterawatt laser pulse interacts with solid targets. <i>Physical Review Letters</i> , 2000 , 84, 899-902 | 7.4 | 200 |
| 110 | Effect of the plasma density scale length on the direction of fast electrons in relativistic laser-solid interactions. <i>Physical Review Letters</i> , 2000 , 84, 1459-62 | 7.4 | 185 |
| 109 | Magnetic reconnection and plasma dynamics in two-beam laser-solid interactions. <i>Physical Review Letters</i> , 2006 , 97, 255001 | 7.4 | 181 |
| 108 | Observation of Electron Energies Beyond the Linear Dephasing Limit from a Laser-Excited Relativistic Plasma Wave. <i>Physical Review Letters</i> , 1998 , 80, 2133-2136 | 7.4 | 181 |
| 107 | Observation of a highly directional X-ray beam from ultrashort, ultraintense laser pulse interactions with solids. <i>Physics of Plasmas</i> , 1999 , 6, 2150-2156 | 2.1 | 175 |
| 106 | Plasma ion emission from high intensity picosecond laser pulse interactions with solid targets. <i>Physical Review Letters</i> , 1994 , 73, 1801-1804 | 7.4 | 171 |
| 105 | Measuring huge magnetic fields. <i>Nature</i> , 2002 , 415, 280 | 50.4 | 158 |
| 104 | Laboratory measurements of 0.7 GG magnetic fields generated during high-intensity laser interactions with dense plasmas. <i>Physical Review E</i> , 2004 , 70, 026401 | 2.4 | 156 |

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| 103 | Observation of synchrotron radiation from electrons accelerated in a petawatt-laser-generated plasma cavity. <i>Physical Review Letters</i> , 2008 , 100, 105006 | 7.4 | 146 |
| 102 | Proton acceleration from high-intensity laser interactions with thin foil targets. <i>Physical Review Letters</i> , 2003 , 90, 064801 | 7.4 | 144 |
| 101 | Collimated multi-MeV ion beams from high-intensity laser interactions with underdense plasma. <i>Physical Review Letters</i> , 2006 , 96, 245002 | 7.4 | 140 |
| 100 | A high impedance mega-ampere generator for fiber z-pinch experiments. <i>Review of Scientific Instruments</i> , 1996 , 67, 1533-1541 | 1.7 | 137 |
| 99 | Multi-MeV Ion Production from High-Intensity Laser Interactions with Underdense Plasmas. <i>Physical Review Letters</i> , 1999 , 83, 737-740 | 7.4 | 133 |
| 98 | Effect of core-corona plasma structure on seeding of instabilities in wire array Z pinches. <i>Physical Review Letters</i> , 2000 , 85, 98-101 | 7.4 | 131 |
| 97 | Electron Acceleration in Cavitated Channels Formed by a Petawatt Laser in Low-Density Plasma. <i>Physical Review Letters</i> , 2005 , 94, | 7.4 | 129 |
| 96 | Neutron production from picosecond laser irradiation of deuterated targets at intensities of. <i>Plasma Physics and Controlled Fusion</i> , 1998 , 40, 175-182 | 2 | 125 |
| 95 | Ion acceleration by collisionless shocks in high-intensity-laser-underdense-plasma interaction. <i>Physical Review Letters</i> , 2004 , 93, 155003 | 7.4 | 121 |
| 94 | Production of radioactive nuclides by energetic protons generated from intense laser-plasma interactions. <i>Applied Physics Letters</i> , 2001 , 78, 19-21 | 3.4 | 121 |
| 93 | Plasma Formation on the Front and Rear of Plastic Targets due to High-Intensity Laser-Generated Fast Electrons. <i>Physical Review Letters</i> , 1998 , 81, 999-1002 | 7.4 | 121 |
| 92 | Propagation instabilities of high-intensity laser-produced electron beams. <i>Physical Review Letters</i> , 2003 , 90, 175001 | 7.4 | 118 |
| 91 | Role of the plasma scale length in the harmonic generation from solid targets. <i>Physical Review E</i> , 1998 , 58, R5253-R5256 | 2.4 | 117 |
| 90 | Characterization of a gamma-ray source based on a laser-plasma accelerator with applications to radiography. <i>Applied Physics Letters</i> , 2002 , 80, 2129-2131 | 3.4 | 112 |
| 89 | Measurements of ultrastrong magnetic fields during relativistic laser-plasma interactions. <i>Physics of Plasmas</i> , 2002 , 9, 2244-2250 | 2.1 | 108 |
| 88 | Energetic proton production from relativistic laser interaction with high density plasmas. <i>Physics of Plasmas</i> , 2000 , 7, 2055-2061 | 2.1 | 105 |
| 87 | Measurements of the inverse Faraday effect from relativistic laser interactions with an underdense plasma. <i>Physical Review Letters</i> , 2001 , 87, 215004 | 7.4 | 101 |
| 86 | Snowplow-like behavior in the implosion phase of wire array Z pinches. <i>Physics of Plasmas</i> , 2002 , 9, 2293-2301 | 2.3 | 100 |

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|----|--|-----|----|
| 85 | Experimental studies of the advanced fast ignitor scheme. <i>Physics of Plasmas</i> , 2000 , 7, 3721-3726 | 2.1 | 97 |
| 84 | The dynamics of wire array Z-pinch implosions. <i>Physics of Plasmas</i> , 1999 , 6, 2016-2022 | 2.1 | 95 |
| 83 | Study of x-ray emission from a table top plasma focus and its application as an x-ray backlighter. <i>Journal of Applied Physics</i> , 2000 , 88, 3225-3230 | 2.5 | 93 |
| 82 | Azimuthal Structure and Global Instability in the Implosion Phase of Wire Array Z-Pinch Experiments. <i>Physical Review Letters</i> , 1998 , 81, 4152-4155 | 7.4 | 91 |
| 81 | Observation of a hot high-current electron beam from a self-modulated laser wakefield accelerator. <i>Physical Review Letters</i> , 2001 , 86, 1227-30 | 7.4 | 88 |
| 80 | Fast particle generation and energy transport in laser-solid interactions. <i>Physics of Plasmas</i> , 2001 , 8, 2323-2330 | 8.5 | |
| 79 | Characterization of high-intensity laser propagation in the relativistic transparent regime through measurements of energetic proton beams. <i>Physical Review Letters</i> , 2009 , 102, 125002 | 7.4 | 82 |
| 78 | Emittance measurements of a laser-wakefield-accelerated electron beam. <i>Physical Review Letters</i> , 2004 , 92, 165006 | 7.4 | 79 |
| 77 | X-ray backlighting of wire array Z-pinch implosions using X pinch. <i>Review of Scientific Instruments</i> , 2001 , 72, 671-673 | 1.7 | 78 |
| 76 | Effect of laser-focusing conditions on propagation and monoenergetic electron production in laser-wakefield accelerators. <i>Physical Review Letters</i> , 2007 , 98, 095004 | 7.4 | 77 |
| 75 | Plasma Wave Generation in a Self-Focused Channel of a Relativistically Intense Laser Pulse. <i>Physical Review Letters</i> , 1998 , 81, 100-103 | 7.4 | 70 |
| 74 | The past, present, and future of Z pinches. <i>Physics of Plasmas</i> , 2000 , 7, 1672-1680 | 2.1 | 63 |
| 73 | The effect of high intensity laser propagation instabilities on channel formation in underdense plasmas. <i>Physics of Plasmas</i> , 2003 , 10, 438-442 | 2.1 | 58 |
| 72 | Measurements of the hole boring velocity from Doppler shifted harmonic emission from solid targets. <i>Physics of Plasmas</i> , 1996 , 3, 3242-3244 | 2.1 | 58 |
| 71 | Two different modes of nested wire array Z-pinch implosions. <i>Physical Review Letters</i> , 2000 , 84, 1708-11 | 7.4 | 56 |
| 70 | Ion heating and thermonuclear neutron production from high-intensity subpicosecond laser pulses interacting with underdense plasmas. <i>Physical Review Letters</i> , 2002 , 89, 165004 | 7.4 | 55 |
| 69 | Observations of the filamentation of high-intensity laser-produced electron beams. <i>Physical Review E</i> , 2004 , 70, 056412 | 2.4 | 54 |
| 68 | Proton deflectometry of a magnetic reconnection geometry. <i>Physics of Plasmas</i> , 2010 , 17, 043104 | 2.1 | 51 |

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| 67 | Optical and x-ray observations of carbon and aluminium fibre Z-pinch plasmas. <i>Plasma Physics and Controlled Fusion</i> , 1997 , 39, 1-25 | 2 | 51 |
| 66 | Second harmonic generation and its interaction with relativistic plasma waves driven by forward Raman instability in underdense plasmas. <i>Physics of Plasmas</i> , 1997 , 4, 1127-1131 | 2.1 | 51 |
| 65 | Dynamics of the critical surface in high-intensity laser-solid interactions: modulation of the XUV harmonic spectra. <i>Physical Review Letters</i> , 2002 , 88, 155001 | 7.4 | 51 |
| 64 | Bidirectional jet formation during driven magnetic reconnection in two-beam laser-plasma interactions. <i>Physics of Plasmas</i> , 2008 , 15, 092701 | 2.1 | 49 |
| 63 | Table-top X-pinch for x-ray radiography. <i>Applied Physics Letters</i> , 2003 , 82, 4602-4604 | 3.4 | 49 |
| 62 | Measurements of relativistic self-phase-modulation in plasma. <i>Physical Review E</i> , 2002 , 66, 036409 | 2.4 | 49 |
| 61 | Plasma Temperature in Optical Field Ionization of Gases by Intense Ultrashort Pulses of Ultraviolet Radiation. <i>Physical Review Letters</i> , 1995 , 74, 554-557 | 7.4 | 47 |
| 60 | Fast advection of magnetic fields by hot electrons. <i>Physical Review Letters</i> , 2010 , 105, 095001 | 7.4 | 42 |
| 59 | Measurement of magnetic-field structures in a laser-wakefield accelerator. <i>Physical Review Letters</i> , 2010 , 105, 115002 | 7.4 | 41 |
| 58 | Self-modulated wakefield and forced laser wakefield acceleration of electrons. <i>Physics of Plasmas</i> , 2003 , 10, 2071-2077 | 2.1 | 41 |
| 57 | Temporal development of hard and soft x-ray emission from a gas-puff Z pinch. <i>Review of Scientific Instruments</i> , 1986 , 57, 2162-2164 | 1.7 | 40 |
| 56 | Table-top neutron source for characterization and calibration of dark matter detectors. <i>Applied Physics Letters</i> , 2002 , 80, 3009-3011 | 3.4 | 39 |
| 55 | Observation of annular electron beam transport in multi-TeraWatt laser-solid interactions. <i>Plasma Physics and Controlled Fusion</i> , 2006 , 48, L11-L22 | 2 | 35 |
| 54 | Coherence and bandwidth measurements of harmonics generated from solid surfaces irradiated by intense picosecond laser pulses. <i>Physical Review A</i> , 1996 , 54, 1597-1603 | 2.6 | 34 |
| 53 | The effect of current prepulse on wire array Z-pinch implosions. <i>Physics of Plasmas</i> , 2002 , 9, 375-377 | 2.1 | 30 |
| 52 | Observation of plasma confinement in picosecond laser-plasma interactions. <i>Physical Review E</i> , 1993 , 48, 2087-2093 | 2.4 | 30 |
| 51 | A nearly real-time high temperature laser-plasma diagnostic using photonuclear reactions in tantalum. <i>Review of Scientific Instruments</i> , 2002 , 73, 3801-3805 | 1.7 | 28 |
| 50 | Characterization of wire x pinches driven by a microsecond-long capacitive discharge. <i>Journal of Applied Physics</i> , 2000 , 87, 8295-8303 | 2.5 | 28 |

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| 49 | Coronal plasma behavior of the Z pinch produced from carbon and cryogenic deuterium fibers. <i>Physics of Plasmas</i> , 1998 , 5, 3366-3372 | 2.1 | 28 |
| 48 | Z-pinch discharges in aluminum and tungsten wires. <i>Physics of Plasmas</i> , 1999 , 6, 2579-2587 | 2.1 | 26 |
| 47 | Compact laser accelerators for X-ray phase-contrast imaging. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372, 20130032 | 3 | 25 |
| 46 | Interaction of an ultra-intense laser pulse with a nonuniform preformed plasma. <i>Physics of Plasmas</i> , 2000 , 7, 3009-3016 | 2.1 | 25 |
| 45 | Optical probing of fiber z-pinch plasmas. <i>Physics of Plasmas</i> , 1998 , 5, 682-691 | 2.1 | 24 |
| 44 | Monoenergetic electronic beam production using dual collinear laser pulses. <i>Physical Review Letters</i> , 2008 , 100, 255002 | 7.4 | 22 |
| 43 | High-intensity-laser-driven Z pinches. <i>Physical Review Letters</i> , 2004 , 92, 095001 | 7.4 | 21 |
| 42 | Direct observations of the geometry of defects in germanium. <i>Philosophical Magazine and Journal</i> , 1963 , 8, 1921-1936 | | 20 |
| 41 | Observation of a long-wavelength hosing modulation of a high-intensity laser pulse in underdense plasma. <i>Physical Review Letters</i> , 2010 , 105, 095003 | 7.4 | 19 |
| 40 | Willingale et al. Reply.. <i>Physical Review Letters</i> , 2007 , 98, | 7.4 | 19 |
| 39 | Plasma cavitation in ultraintense laser interactions with underdense helium plasmas. <i>New Journal of Physics</i> , 2010 , 12, 045014 | 2.9 | 18 |
| 38 | Self-Guided Wakefield Experiments Driven by Petawatt-Class Ultrashort Laser Pulses. <i>IEEE Transactions on Plasma Science</i> , 2008 , 36, 1715-1721 | 1.3 | 18 |
| 37 | High intensity laser-plasma sources of ions physics and future applications. <i>Plasma Physics and Controlled Fusion</i> , 2005 , 47, B451-B463 | 2 | 18 |
| 36 | Characteristics of a Z-pinch produced from a glass optical fiber. <i>Physics of Fluids B</i> , 1991 , 3, 2835-2843 | | 18 |
| 35 | Time-resolved energy measurement of electron beams in fiber Z-pinch discharges. <i>Physics of Plasmas</i> , 1997 , 4, 490-492 | 2.1 | 17 |
| 34 | Plasma dynamics during the evolution of two wire Z-pinch. <i>Plasma Physics and Controlled Fusion</i> , 2004 , 46, 1-10 | 2 | 17 |
| 33 | Target charging effects on proton acceleration during high-intensity short-pulse laser-solid interactions. <i>Applied Physics Letters</i> , 2004 , 84, 2766-2768 | 3.4 | 17 |
| 32 | Laser plasma acceleration of electrons: Towards the production of monoenergetic beams. <i>Physics of Plasmas</i> , 2005 , 12, 056711 | 2.1 | 17 |

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| 31 | Generation of ultrahigh-velocity ionizing shocks with petawatt-class laser pulses. <i>Physical Review Letters</i> , 2009 , 103, 255001 | 7.4 | 16 |
| 30 | Effect of relativistic plasma on extreme-ultraviolet harmonic emission from intense laser-matter interactions. <i>Physical Review Letters</i> , 2008 , 100, 125005 | 7.4 | 16 |
| 29 | Temporally and spatially resolved measurements of multi-megagauss magnetic fields in high intensity laser-produced plasmas. <i>Physics of Plasmas</i> , 2008 , 15, 122701 | 2.1 | 15 |
| 28 | Measurements of forward scattered laser radiation from intense sub-ps laser interactions with underdense plasmas. <i>Physics of Plasmas</i> , 2006 , 13, 113103 | 2.1 | 14 |
| 27 | Observation of impurity free monoenergetic proton beams from the interaction of a CO2 laser with a gaseous target a). <i>Physics of Plasmas</i> , 2011 , 18, 056705 | 2.1 | 13 |
| 26 | Effect of wire number on x-pinch discharges. <i>Applied Physics Letters</i> , 2006 , 88, 261501 | 3.4 | 13 |
| 25 | Low energy spread electron beams from ionization injection in a weakly relativistic laser wakefield accelerator. <i>Plasma Physics and Controlled Fusion</i> , 2014 , 56, 084007 | 2 | 12 |
| 24 | Particle acceleration using intense laser produced plasmas. <i>Laser Physics Letters</i> , 2007 , 4, 847-862 | 1.5 | 12 |
| 23 | Return current and proton emission from short pulse laser interactions with wire targets. <i>Physics of Plasmas</i> , 2004 , 11, 2806-2813 | 2.1 | 12 |
| 22 | Reduction of proton acceleration in high-intensity laser interaction with solid two-layer targets. <i>Physics of Plasmas</i> , 2006 , 13, 123101 | 2.1 | 10 |
| 21 | Observation of Laser Power Amplification in a Self-Injecting Laser Wakefield Accelerator. <i>Physical Review Letters</i> , 2018 , 120, 254801 | 7.4 | 9 |
| 20 | Imaging of high harmonic radiation emitted during the interaction of a 20 TW laser with a solid target. <i>Journal of Applied Physics</i> , 1997 , 81, 2055-2058 | 2.5 | 9 |
| 19 | Ultrashort pulse filamentation and monoenergetic electron beam production in LWFAs. <i>Plasma Physics and Controlled Fusion</i> , 2009 , 51, 024010 | 2 | 8 |
| 18 | The generation of mono-energetic electron beams from ultrashort pulse laser-plasma interactions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2006 , 364, 663-77 | 3 | 8 |
| 17 | Influence of a Prepulse Current on a Fiber Z Pinch. <i>Physical Review Letters</i> , 1998 , 81, 361-364 | 7.4 | 8 |
| 16 | High density Z-pinch. <i>Plasma Physics and Controlled Fusion</i> , 1986 , 28, 1931-1942 | 2 | 8 |
| 15 | Using self-generated harmonics as a diagnostic of high intensity laser-produced plasmas. <i>Plasma Physics and Controlled Fusion</i> , 2002 , 44, B233-B245 | 2 | 7 |
| 14 | Soft x-ray spectra from a gas-puff z pinch. <i>Journal of Applied Physics</i> , 1989 , 65, 3385-3390 | 2.5 | 7 |

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| 13 | X-ray emission from plasmas formed using an excimer laser with various pulse lengths. <i>Journal Physics D: Applied Physics</i> , 1998 , 31, 2777-2782 | 3 | 6 |
| 12 | Measurements of magnetic field generation at ionization fronts from laser wakefield acceleration experiments. <i>New Journal of Physics</i> , 2013 , 15, 025034 | 2.9 | 5 |
| 11 | Measurements of forward scattered spectra from intense laser interactions in the forced laser wake-field regime. <i>Plasma Physics and Controlled Fusion</i> , 2006 , 48, 29-37 | 2 | 4 |
| 10 | Clark et al. Reply.. <i>Physical Review Letters</i> , 2006 , 96, | 7.4 | 4 |
| 9 | Development of XUV lasers at the RAL Central Laser Facility. <i>Optical and Quantum Electronics</i> , 1996 , 28, 201-208 | 2.4 | 3 |
| 8 | Characterization of laser-driven proton beams from near-critical density targets using copper activation. <i>Journal of Plasma Physics</i> , 2015 , 81, | 2.7 | 2 |
| 7 | Proton probe measurement of fast advection of magnetic fields by hot electrons. <i>Plasma Physics and Controlled Fusion</i> , 2011 , 53, 124026 | 2 | 2 |
| 6 | Comment on "Plasma modulation of harmonic emission spectra from laser-plasma interactions". <i>Physical Review Letters</i> , 2008 , 100, 199501; discussion 199502 | 7.4 | 1 |
| 5 | The production of high-energy electrons from the interaction of an intense laser pulse with an underdense plasma. <i>Journal of Modern Optics</i> , 2003 , 50, 673-681 | 1.1 | 1 |
| 4 | | | |
| 3 | Observation of anomalous side-scattering in laser wakefield accelerators. <i>Laser and Particle Beams</i> , 2018 , 36, 391-395 | 0.9 | 0 |
| 2 | Dynamics of Multiple-Wire X-Pinches. <i>IEEE Transactions on Plasma Science</i> , 2008 , 36, 1288-1289 | 1.3 | |
| 1 | Hard X-Ray Diagnostic of Z-Pinch Discharges 1998 , 491-497 | | |