

AP Physics C: Electricity and Magnetism

Glossary · · every term in the course, A–Z

English		Pinyin
	always perpendicular	chuí zhí
	ammeter	diàn liú biǎo
	<i>/ˈæmɪtə/</i>	
	amperes	ān péi
	<i>/ˈæmpeəz/</i>	
	Amperian loop	ān péi huán lù
	<i>/æmˈpiəriən lʊp/</i>	
	Ampère's law	ān péi dìng lǚ
	<i>/ˈæmpeəz lɔː/</i>	
	angular frequency	jiǎo pín lǚ
	<i>/ˈæŋɡjələ ˈfriːkwənsi/</i>	
	area vector	miàn jī shǐ liàng
	<i>/ˈeəriə ˈvektə/</i>	
	atomic magnetic dipoles	yuán zì cí ǒu jí zì
	attract	xī yǐn
	<i>/əˈtrækt/</i>	
	back emf	fǎn diàn dòng shì
	Biot-Savart law	-
	-	bì ào - sà fá ěr dìng lǚ
	Biot-Savart law	-
	<i>/ˈbiɒt ˈsævɑːt lɔː/</i>	bì ào - sà fá ěr dìng lǚ
	branch current	zhī lù diàn liú
	capacitance	diàn róng
	<i>/kəˈpæsɪtəns/</i>	
	capacitor	diàn róng qì
	<i>/kəˈpæsɪtə/</i>	
	centripetal force	xiàng xīn lì
	<i>/senˈtrɪpɪtl fɔːs/</i>	
	charge density	diàn hè mì dù
	<i>/tʃɑːdʒ ˈdensɪti/</i>	
	charge distribution	diàn hè fēn bù
	charging by conduction	chuán dǎo qǐ diàn
	<i>/ˈtʃɑːdʒɪŋ baɪ kənˈdʌkʃn/</i>	

English		Pinyin
	charging by friction	mó cā qǐ diàn
	<i>/ˈtʃɑːdʒɪŋ baɪ ˈfrɪkʃn/</i>	
	charging by induction	gǎn yìng qǐ diàn
	<i>/ˈtʃɑːdʒɪŋ baɪ mˈdʌkʃn/</i>	
	circuit diagram	diàn lù tú
	<i>/ˈsɜːkɪt ˈdaɪəɡræm/</i>	
	closed circuit	bì hé diàn lù
	closed surface	bì hé qū miàn
	compass	zhǐ nán zhēn
	<i>/ˈkʌmpəs/</i>	
	concentric circles	tóng xīn yuán
	<i>/kənˈsentrɪk ˈsɜːklz/</i>	
	conductor	dǎo tǐ
	<i>/kənˈdʌktə/</i>	
	conservation of charge	diàn hè shǒu héng
	<i>/ˌkɒnsəˈveɪʃn ɒv tʃɑːdʒ/</i>	
	conservation of energy	néng liàng shǒu héng
	<i>/ˌkɒnsəˈveɪʃn ɒv ˈenədʒi/</i>	
	conservative force	bǎo shǒu lì
	<i>/kənˈsɜːvətɪv fɔːs/</i>	
	conserved	shǒu héng
	<i>/kənˈsɜːvd/</i>	
	continuous charge distribution	lián xù diàn hè fēn bù
	<i>/kənˈtɪnjuːəs tʃɑːdʒ ˌdɪstrɪˈbjʊːʃn/</i>	
	conventional current	cháng guī diàn liú
	<i>/kənˈvenʃənəl ˈkərənt/</i>	
	coulomb	kù lún
	<i>/ˈkuːləm/</i>	
	Coulomb's law	kù lún dìng lǚ
	<i>/ˈkuːləmz lɔː/</i>	
	cross-sectional area	héng jié miàn jī
	<i>/krɒs ˈsekʃənəl ˈeəriə/</i>	
	current density	diàn liú mì dù
	<i>/ˈkərənt ˈdensɪti/</i>	
	cylindrical symmetry	zhù duì chèn
	<i>/sɪˈlɪndrɪkl ˈsɪmətri/</i>	
	diamagnetic	kàng cí xìng
	<i>/ˌdaɪəmægˈnetɪk/</i>	

English	Pinyin
 dielectric <i>/ˌdaɪˈlektɹɪk/</i>	diàn jiè zhì
 dielectric constant <i>/ˌdaɪˈlektɹɪk ˈkɒnstənt/</i>	jiè diàn cháng shù
 differential equation <i>/ˌdɪfəˈrenʃl iˈkweɪʒn/</i>	wēi fēn fāng chéng
 direction <i>/daɪˈrekʃn/</i>	fāng xiàng
 drift velocity <i>/drɪft vəˈlɒsɪti/</i>	piāo yí sù dù
 eddy currents <i>/'edi ˈkʌrənts/</i>	wō diàn liú
 electric charge <i>/ɪˈlektɹɪk tʃɑːdʒ/</i>	diàn hè
 electric current <i>/ɪˈlektɹɪk ˈkʌrənt/</i>	diàn liú
 electric field <i>/ɪˈlektɹɪk fiːld/</i>	diàn chǎng
 electric field is zero	diàn chǎng wèi líng
 electric flux <i>/ɪˈlektɹɪk flʌks/</i>	diàn tōng liàng
 electric potential <i>/ɪˈlektɹɪk pəˈtɛnʃl/</i>	diàn shì
 electric potential energy <i>/ɪˈlektɹɪk pəˈtɛnʃl ˈenədʒi/</i>	diàn shì néng
 electric power <i>/ɪˈlektɹɪk ˈpaʊə/</i>	diàn gōng lǜ
 electromagnetic waves <i>/ɪˌlektɹəʊmægˈnetɪk weɪvz/</i>	diàn cí bō
 electromagnetism	diàn cí xué
 electron volt	diàn zǐ fú tè
 electrons <i>/ɪˈlektɹɒnz/</i>	diàn zǐ
 electroscope <i>/ɪˌlektɹəʊˈskəʊp/</i>	yàn diàn qì
 electrostatic equilibrium <i>/ɪˌlektɹəʊˈstætɪk ɪˌkwɪˈlɪbrɪəm/</i>	jìng diàn píng héng
 electrostatic shielding <i>/ɪˌlektɹəʊˈstætɪk ˈʃiːldɪŋ/</i>	jìng diàn píng bì

English	Pinyin
 elementary charge <i>/ˌeɪˈmentəri tʃɑːdʒ/</i>	jī běn diàn hè
 emf <i>/emf/</i>	diàn dòng shì
 enclosed	fēng bì
 energy <i>/'enədʒi/</i>	néng liàng
 energy density	néng liàng mì dù
 energy stored <i>/'enədʒi stɔːd/</i>	chǔ cún de néng liàng
 energy transfer <i>/'enədʒi ˈtrænsfɜː/</i>	néng liàng zhuǎn yí
 equipotential <i>/ɪˌkwɪpəˈtɛnʃl/</i>	děng shì miàn
 equipotential surface <i>/ɪˌkwɪpəˈtɛnʃl ˈsɜːfɪs/</i>	děng shì miàn
 equivalent capacitance <i>/ɪˈkwɪvələnt kəˈpæsɪtəns/</i>	děng xiào diàn róng
 equivalent resistance <i>/ɪˈkwɪvələnt rɪˈzɪstəns/</i>	děng xiào diàn zǔ
 every distinct pair	měi yī duì
 external agent	wài lì
 Faraday cage <i>/'færədeɪ keɪdʒ/</i>	fǎ lǎ dì lóng
 Faraday's law <i>/'færədeɪz lɔː/</i>	fǎ lǎ dì dìng lǜ
 ferromagnetic <i>/ˌferəmægˈnetɪk/</i>	tiě cí xìng
 field <i>/fiːld/</i>	chǎng
 field lines <i>/fiːld laɪnz/</i>	diàn chǎng xiàn
 fundamental property <i>/ˌfʌndəˈmentl ˈprɒpəti/</i>	jī běn shǔ xìng
 Gauss's law <i>/'gaʊsɪz lɔː/</i>	gāo sī dìng lǜ
 Gaussian surface <i>/'gaʊʃn ˈsɜːfɪs/</i>	gāo sī miàn

English	Pinyin
 generator <i>/ˈdʒenəreɪtə/</i>	fā diàn jī
 gradient <i>/ˈɡreɪdɪənt/</i>	tī dù
gravitational	zhòng lì
 ground <i>/ɡraʊnd/</i>	jiē dì
 Hall effect <i>/hɔːl ɪˈfekt/</i>	huò ěr xiào yìng
 henries <i>/ˈhenrɪz/</i>	hēng lì
 ideal battery <i>/aɪˈdɪəl ˈbætəri/</i>	lǐ xiǎng diàn chí
ideal emf	lǐ xiǎng diàn dòng shì
 induced charge <i>/ɪnˈdʒuːst tʃɑːdʒ/</i>	gǎn yìng diàn hè
 induced current <i>/ɪnˈdʒuːst ˈkʌrənt/</i>	gǎn yìng diàn liú
induced emf	gǎn yìng diàn dòng shì
 inductance <i>/ɪnˈdʌktəns/</i>	diàn gǎn
induction <i>/ɪnˈdʌkʃn/</i>	gǎn yìng
 inductor <i>/ɪnˈdʌktə/</i>	diàn gǎn qì
 insulator <i>/ˈɪnsjuːleɪtə/</i>	jué yuán tǐ
 integrate <i>/ˈɪntɪɡreɪt/</i>	jī fēn
integrating	jī fēn
 internal resistance <i>/ɪnˈtɜːnl rɪˈzɪstəns/</i>	nèi zǔ
 inverse-square <i>/ɪnˈvɜːs skweə/</i>	píng fāng fǎn bǐ
 isoline <i>/ˈaɪsəliːn/</i>	děng zhí xiàn
Joule heating	jiāo ěr rè

English	Pinyin
 junction <i>/ˈdʒʌŋkʃn/</i>	jié diǎn
 kinetic energy <i>/kɪˈnetɪk ˈenədʒi/</i>	dòng néng
 Kirchhoff's junction rule <i>/ˈkɜːkhɒfs ˈdʒʌŋkʃn ruːl/</i>	jī ěr huò fū jié diǎn dīng zé
 Kirchhoff's loop rule <i>/ˈkɜːkhɒfs luːp ruːl/</i>	jī ěr huò fū huí lù dīng zé
 LC circuit	LC LC diàn lù
 Lenz's law <i>/ˈlentsɪz lɔː/</i>	léng cì dīng lǜ
 linear charge density <i>/ˈliːniə tʃɑːdʒ ˈdensɪti/</i>	xiàn diàn hè mì dù
long straight wire	zhǎng zhí dǎo xiàn
 magnetic dipole <i>/mæɡˈnetɪk ˈdaɪpəʊl/</i>	cí ǒu jí zì
 magnetic domains <i>/mæɡˈnetɪk dəˈmeɪnz/</i>	cí chóu
 magnetic field <i>/mæɡˈnetɪk fiːld/</i>	cí chǎng
 magnetic field lines <i>/mæɡˈnetɪk fiːld laɪnz/</i>	cí gǎn xiàn
 magnetic flux <i>/mæɡˈnetɪk flʌks/</i>	cí tōng liàng
magnetic force <i>/mæɡˈnetɪk fɔːs/</i>	cí lì
 magnetic monopoles <i>/mæɡˈnetɪk ˈmɒnəʊpəʊlz/</i>	cí dān jí zì
 magnetic permeability <i>/mæɡˈnetɪk ˌpɜːməˈbɪlɪti/</i>	cí dǎo lǜ
 Maxwell's equations <i>/ˈmækswelz ɪˈkweɪʒnz/</i>	mài kè sī wéi fāng chéng zǔ
 motional emf <i>/ˈməʊʃənəl emf/</i>	dòng shēng diàn dòng shì
negative <i>/ˈnegətɪv/</i>	fù
neutral <i>/ˈnjuːtrəl/</i>	zhōng xìng

English	Pinyin
no work	bù zuò gōng
 normal	fǎ xiàn
 Ohm's law	ōu mǔ dìng lǚ
 ohmic	ōu mǔ xìng
one energy-conservation equation	néng liàng shǒu héng fāng chéng
open circuit	duàn lù
 oscillates	zhèn dàng
outer surface	wài biǎo miàn
outward normal	fǎ xiàn
 parallel	bìng lián
 parallel-plate capacitor	píng xíng bǎn diàn róng qì
 paramagnetic	shùn cí xìng
per unit charge	měi dān wèi diàn hè
 permittivity of free space	zhēn kōng jiè diàn cháng shù
 perpendicular	chuí zhí
 planar symmetry	píng miàn duì chèn
• point charges	diǎn diàn hè
 polarization	jí huà
 polarized	jí huà
positive	zhèng

English	Pinyin
 potential difference	diàn shì chà
principle of superposition	dié jiā yuán lǐ
 projectile motion	pāo tǐ yùn dòng
 quantized	liàng zǐ huà
 RC circuit	RC diàn lù
redistributes	chóng xīn fēn bù
repel	pái chì
 resistance	diàn zǔ
 resistivity	diàn zǔ lǚ
resistors	diàn zǔ qì
retarding force	zǔ ài lì
 right-hand rule	yòu shǒu dīng zé
 RL circuit	RL diàn lù
# scalar	biāo liàng
 series	chuàn lián
short circuit	duǎn lù
sign	fú hào
sign conventions	fú hào yuē dìng
 simple harmonic motion	jiǎn xié yùn dòng
 solenoid	luó xiàn guǎn

English	Pinyin
source of emf	diàn dòng shì yuán
speed	sù lǚ
 spherical symmetry	qiú duì chèn
 steady state	wěn tài
 superposition	dié jiā
 surface charge density	miàn diàn hè mì dù
 surface integral	miàn jī fēn
 symmetry	duì chèn xìng
 system	xì tǒng
 tangent	xiāng qiè
temperature	wēn dù
 terminal voltage	duān diàn yā
 test charge	jiǎn yàn diàn hè
 time constant	shí jiān cháng shù
= uniform	jūn yún
vector	shǐ liàng
 vector field	shǐ liàng chǎng
 velocity selector	sù dù xuǎn zé qì
 volt	fú tè
voltage	diàn yā

English	Pinyin
 voltmeter	diàn yā biǎo
 volume charge density	tǐ diàn hè mì dù
well	shì jǐng
 work	gōng
work-energy theorem	gōng néng dìng lǐ