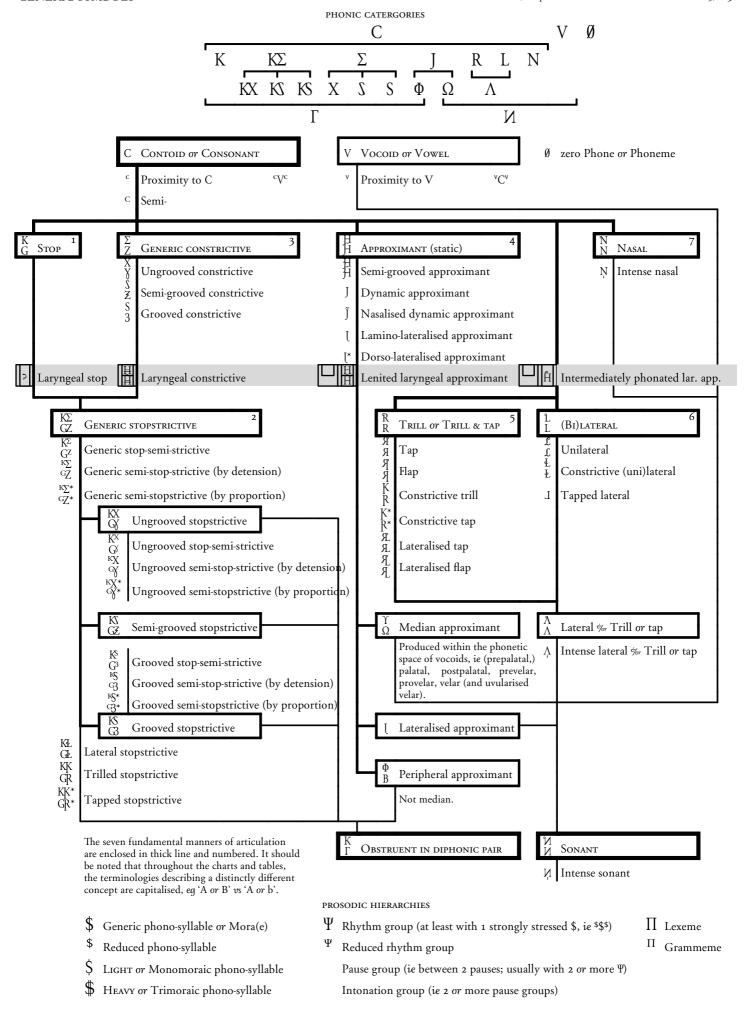
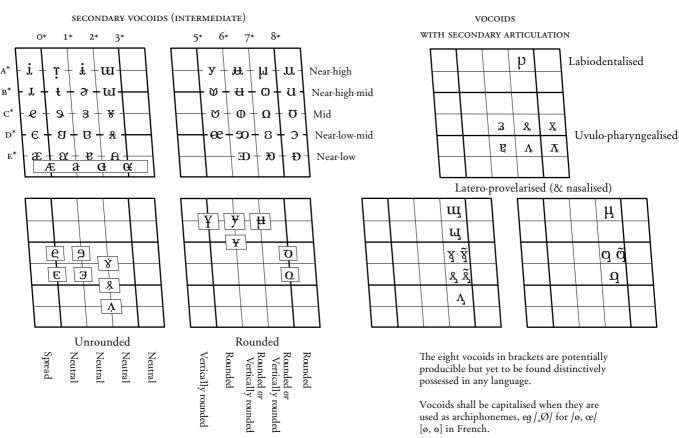
(compiled from canIPA in HPh 2012 & HPr 20052013



TRANSCRIPTION CONVENTIONS TYPES OF NOTATION Hyperphonemic transcription Phonemic or Tonemic or Phonotonemic transcription Hyperphonetic transcription (Taxo-) Phonetic or Tonetic or Phonotonetic transcription Paraphonic transcription (ie $\langle 0 / / \rangle$, $\langle 0 [] \rangle$, &c) Paraphonic elements (o) or Graphemic indication (()) potential Phone or Phoneme unnecessary Phone or Phoneme 1\$ **\$** Milder realisation (ie less marked; [↑↑\$]: affected realisation) Broader realisation (ie more marked; [\$\square\$\$\\$]: broadest realisation) **\$**\$ Intentional realisation aiming at neutral pronunciation but often exaggerated (ie subjectively prestigious) POSITIONAL SPECIFICATIONS ALPHANUMERIC INDICATIONS \$...¹ Protonic Syllable-initial Word-initial o^*F [Æ] Low near-front unrounded -\$-\$1 9A* Syllable-final Word-internal Pretonic Near-high back rounded $[\mathfrak{u}]$ ۱\$ $7^{1*}KS$ Word-final Post-pausal Tonic [tʃ] Lamino-postalveo-palatal grooved stopstrictive 11²G/* Postonic Utterance-final [9 $\hat{\chi}$] Velar rounded ungrooved semi-stopstrictive (by proportion) **VOCOIDS** PRIMARY VOCOIDS (FUNDAMENTAL) Back-central Front-centr Fronter-back Backer-front Near-back Cetnral Front Back Ţ 1 W Ш) y ŧŧ μ u High } CLOSE ι Ч Ι Ŧ ш Ы) Y \boldsymbol{v} ω Ω Lower-high В e Э ტ o C e γ (X) (Ø) Ø θ Higher-mid } MID Ε \mathbf{E} 3 ጸ (X)(Q)ß Ω σ Lower-mid 0 D ε В \mathfrak{g} Λ Λ (æ œ \mathfrak{D} Э Higher-low E } OPEN a α D æ Α a (E) Œ а $\boldsymbol{\alpha}$ Low 8 0 1 3 4 5 9 SECONDARY VOCOIDS (INTERMEDIATE) VOCOIDS 8* WITH SECONDARY ARTICULATION 3* Labiodentalised p A*

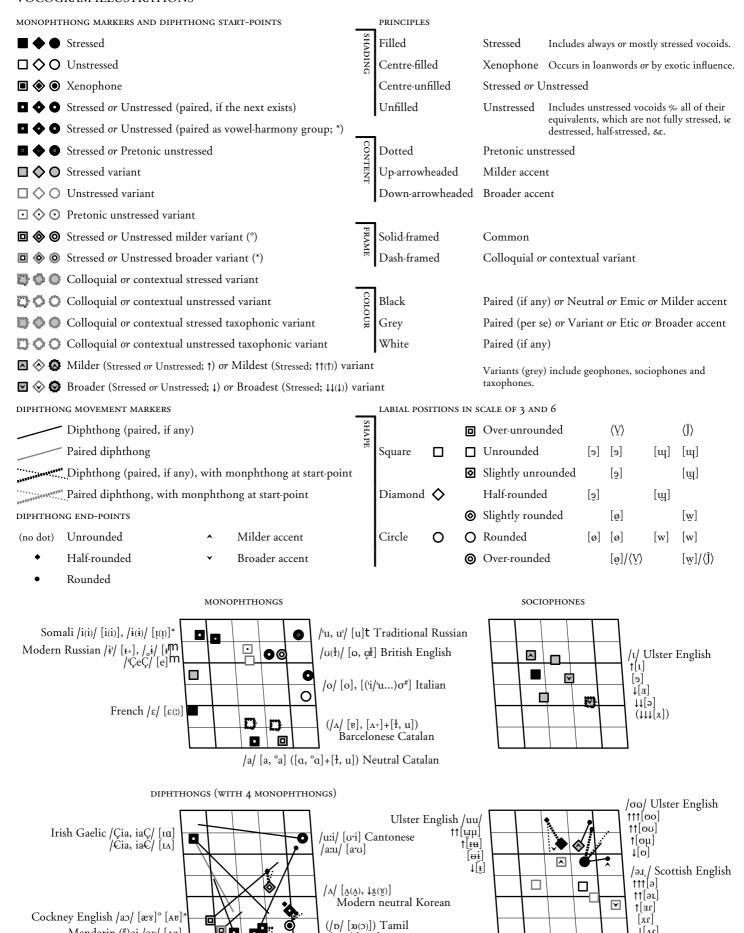


used as archiphonemes, eg / Ø/ for /ø, œ/

[ø, ø] in French.

VOCOGRAM ILLUSTRATIONS

Mandarin (#)ai /ae/ [A=]



/a(a)/[a(a)]

↑[vt]

↓↓[π]

CONTOIDS (1B)	Voicing	BILABIAL	rounded	Labiodentalised bilabial	Semi-alveolarised bilabial	Palatalised bilabial	Prevelarised bilabial	Velarised or Uvularised bilabial	rounded	Labial-apical	Labiodental	rounded	Hyper-labiodental	Palatalised labiodental	Velarised labiodental	rounded	Uvularised labiodental	rounded	Pre-dental	Pro-dental or interdental	Apico-dental	Lamino-dental	Dental rounded	Dental-bilabial	Bilabialised dental	Bilabialised palatalised dental	Semi-bilabialised dental	Labiodentalised dental	Palatalised dental	Velarised dental	rounded	Uvularised dental	rounded	Uvulo-labiodentalised dental
Approximant /J/ [H, Ĥ]	- +	φ β	φ β			ф В		ф В			F U	Ê Û		ţ y			F V				1				0									
Semiapproximant [H, H]	_	φ β	U			13		1						3							ე გ													
Nasalised approximant [J̃] Lamino-lateralised	+	q									U	U					િ				0													
approximant [[]	+	Ļ																			_()		_						Ш	Ш			
Trill, TAP & FLAP /R/	R, R		Т	Г	Г	Г								Г					г		4n		_	Г		Г							\neg	\neg
Trill [R, R]	+	Р В	ŀ																		r													
Тар [Я, Я]	+	ß									٧										r l													
Пар [Я, Я]	-										υ																							
Constrictive trill [K, R]	+										U																							
Constrictive tap [K*, R*]	+	-																	\vdash														1	
Lateralised tap & flap [兄, 兄] & [凡, 凡]	+																																	\dashv
[71, 71] & [71, 71]	+														Ш									_						Ш	Ш	Ш		_
Lateral /L/ [L, L]	- +									1													<u>]</u>							-		<u> </u>	\neg	٦
Unilateral [£, £]	-+																				 }	ĭ	5											
Constrictive (uni)lateral [Ł, Ł]	_																		↓ ↓		` }	1												
er 11. 1[r]	+	_													$\vdash\vdash$				Ψ		Υ 									Н		\vdash	\dashv	ᅱ
Tapped lateral [J] Semilateral [L]	+	\vdash	\vdash	\vdash	\vdash	\vdash	\vdash	Н		\dashv				\vdash	H	\vdash	\vdash		\vdash	\vdash	\vdash	H		\vdash	\vdash	\vdash	\vdash	\vdash	\vdash	H	\vdash	$\mid \rightarrow \mid$	\dashv	\dashv
Semilateral []	All	con	toid	s ha	ve p	ulmo	onic	pho	nes;	plac	es o	f art	icula	ation	1 1-6	are (cons	ider	ed fi	ront,	7-13	3 bac	ck (v	vher	e 8-1	ı als	so m	edia	n), a	ınd 1	4 la:	ryng	eal.	_
		Vo Vo Di	oicele oiced phor K, T	ess C C w	witl vith i	h eje njec	ctive	e pho	ne [,	Г [К'] Г]			Hy Car Bot	perp noni :h ab	hone	etic rt n	in of	^f IPA			Dip Dip Dip	ohon ohon	iic p iic p iic p	air v air v air v	vith vith vith	tong tong	gue t gue t gue t	ip lo ip lo ip ra	were were	ed or ed (*)	rais	ed (*		red

CONTOIDS (2A)	Voicing	LAMINO-DENTI-ALVEOLAR	rounded	Semi-bilabialised denti-alveolar	Labiodentalised denti-alveolar	Apico-alveolar	rounded	protruded	Alveolar-bilabial	Bilabialised apico-alveolar	Semi-bilabialised apico-alveolar	Labio-palatalised apico-alveolar	Labiodentalised apico-alveolar	Prevelarised apico-alveolar	rounded	Velar- or Uvular-ised apico-alveolar	rounded	Semi-velarised apico-alveolar	rounded	Back apico-alveolar	rounded	Apico-postalveolar	rounded	slightly rounded	labiodentalised	Apico-postalveolar-bilabial	Bilabialised apico-postalveolar	Velarised apico-postalveolar	rounded	slightly rounded	Uvularised apico-postalveolar	rounded	Back apico-postalveolar
Semi-nasal [N]	+					n										₽						ຐ						भ					
Nasal/N/ $[N, N]$	-	ĥ				h			'n							h						h									П	\Box	
	+	n				n	ĥ	-	m	m		ŗr	n			ħ		n				η	η̂			η	η	·			Ц	Щ	
Stop /K/ [K, G]	_	ŧ		ŧ:		ţ	Î,		IP ф		Ţ					ŧ	Î d			ŧ		ţ,	Ĵ.			tp		ŧ đ	ŧ				ŧ
	+	d		Œ	ď	d 1	ď		ф		ф I			\vdash		đ	q			þ		d]	q			ф		q	q <u> </u>	H	Н	\dashv	þ
Semi-stop [K, G]	_					d																t d											
Stopstrictive /KΣ/ [K2		 7]				4	_					<u> </u>		_								૧			<u> </u>					_	Ш	_	
Ungrooved	_, &					tz	tŝ							Г								tą	tĝ					Ī	Ī		П	Π	
Ungrooved stopstrictive [KX, Gy]	+					dz	dŝ															ďζ	ďξ										
Ungrooved stop- semi-strictive [K ^x , G ⁱ]	-+					d p																											
Ungrooved semi- stop-strictive by detension & proportion* [KX,SY(*	- []+					dz*5 b*2b																											
Grooved stopstrictive [IS, G]	-	ts dz	ŝ dĝ			tș dz	tŝ dĝ	ţŝ ď∑									tê d≩					ţ ኒ	(E)					tç dz	tê dê				
Grooved stop- semi-strictive [K, G	-					ţ\$ dz	CZ-	G ₂								<u> </u>	GL ₁					ţ ţ dz	<u>"C</u>					CIL.	CII.				
Grooved semi-	+	H				ďζ	$\overline{}$		\vdash			_		┝								٠. ر	f.	р						H	Н	\dashv	
stop-strictive by detension & proportion* [15,13(*)	+																				ŭ	ţ۶ dz	Z Z Z	١									
Lateral stopstrictive	-					tł	tį									tł	t <u></u>					tŧ	Ü								П	一	
[KŁ, GŁ]	+					ď₽	ď₽										d₽					ď₹									Ш	Ш	
Trilled & tapped * stopstrictive [KK, GR(*)]	-					t2 t2																											
[KK, GR ^(*)]	+					a^2a	7																								Ш		
Constrictive $\Sigma / \Sigma / \Sigma$	Z]					tr t						_		_									_		_			_	_	_	_	_	_
Ungrooved constrictive [X, \(\)]	_					S	ŝ c															<u>ئ</u>	$\hat{\mathbf{z}}$										
Ungrooved semi-	+	H				Z S	ź							\vdash								Ż	Ž							⊣	Н	\dashv	
constrictive [X, Y]	+					ź								l																			
Semi-grooved constrictive [S, Z]	<u> </u>	£				2	_		\vdash			H		\vdash								3							H	H	H	\dashv	\dashv
constitute [0, 2]	+	Z				ጇ				L	L											i Z		L									
Grooved constrictive [S, 3]	-	ક	કે		ક	ş	ŝ	ŝ								ş				ş	ફે	ş	ŝ					ફ	કે		8	<u>ફ</u>	ફ
Grooved semi-	+	Z	Ž [Z	Z ₁	ĝ	Z,						lacksquare		Z				Z ;	Ê Z	·						Ę	Ę	\vdash	Z (Ê E	,
constrictive [S, 3]	-	È 4				\$														\$ *		Š									\$		è
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	-))))	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	J	J	J)))))	J	J)	J

CONTOIDS (2B)	Voicing	LAMINO-DENTI-ALVEOLAR	rounded	Semi-bilabialised denti-alveolar	Labiodentalised denti-alveolar	Apico-alveolar	rounded	protruded	Alveolar-bilabial	Bilabialised apico-alveolar	Semi-bilabialised apico-alveolar	Labio-palatalised apico-alveolar	Labiodentalised apico-alveolar	Prevelarised apico-alveolar	rounded	Velar or Uvular ised apico-alveolar	rounded	Semi-velarised apico-alveolar	rounded	Back apico-alveolar	rounded	Apico-postalveolar	rounded	slightly rounded	labiodentalised	Apico-postalveolar-bilabial	Bilabialised apico-postalveolar	Velarised apico-postalveolar	rounded	slightly rounded	Uvularised apico-postalveolar	rounded	Back apico-postalveolar
Approximant /J/ [H, Ĥ]	-	\mathfrak{F}				2																ξ	Ê										٦
Semi- approximant [H, H]	+	გ წ გ				Z																ξ	<u> </u>										-
Semi-grooved approximant [H, f1]	+ - +	O				ς ζ																Ź										- 1	₹
Semi-grooved semi- approximant [H, H]	-+					ζ Ź																										1	γ ξ
Nasalised approximant [j̃] Lamino-lateralised approximant [l]	+					r										4						7		Į	ړ			 }		 		7	
Trill, TAP & FLAP /R/ [R, R]									•											U		Ū	U		<u> </u>					_	_
Trill [R, R]	-+					r°	î									ŧ						r r											
Тар [Я, Я]	-+					L L	ĵ									£						(°											
Semi-tap [^Я]	+					2	Dia	apho	ne o	fЯ	<u>.</u> & Ĥ,	who	ere o	scill	atio	ı is p	ossi	ble l	oetw	een	8 [n]	z [z].				•							٦
Flap [A, A]	-					า										ъ												П	\Box			П	٦
	+					า										ı						ใ											
Constrictive trill [K, R]	-					2																											
	+					2																						Ш	Ш			┙	
Constrictive tap [K*, R*]	-					S																											
Lateralised	+				+	Z	fl										fl											Ш	Ш	Ш		4	4
tap & flap [兄, 兄] & [凡, 凡]	-						ļ†I									7								ļ									
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Unilateral [£, £]	+					λ								λ	<u>ኢ</u> አ	t																	
Constrictive (uni)lateral [Ł, Ł]	+					↓	101						0			1 1	1.334.0 1.934.					1						П					\rceil
Semi-constrictive (uni)lateral [^Ł , ^Ł]	-+					1	J)					ı											1
Tapped lateral [J]	+			П	П	1																1						H	H	П	\square	\dashv	\dashv
Semilateral [L]	+	T				Ī	_									ı I	î Î	l ∣ }	ĵ			1		\vdash				H	Н	П		\dashv	\dashv
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CONTOIDS (3A)	Voicing	Subapico-palatal	rounded	Velarised subapico-palatal rounded	LAMINO-POSTALVEO-PALATAL	protruded	over-rounded	Velarised lamino-postalveo-palatal	Lamino-postalveo-prevelar	protruded	over-rounded	Lamino-postalveo-velar	protruded	over-rounded	labiodentalised	Lamino-prepalatal	rounded	Bilabialised lamino-prepalatal	Labiodentalised lamino-prepalatal	Velarised lamino-prepalatal	Lamino-propalatal	Lamino-palatal	rounded	Uvularised lamino-palatal	rounded	Postpalatal rounded
Semi-nasal [N]	+				łα	_										j a						ъ			T	П
Nasal /N/ [N, N]	+	դ դ	ή		ů	_		ŧι								ູ່h ຫຼ			ίι	į	n	ျှာ n	ĥ	n		ր
Stop /K/ [K, G]	-+		Ĵ,	Î Î	t d	ţ d						ţ	† đ			ţ	Ŷ Ŷ	t d	,		ţ	c J	_	ε€ J	č	¥
Semi-stop [K, G]	-+	_ /0_	<i>.</i> /o	<i>k</i> o	O\							Ø,	J			3	9	,			3	d J	J	J	J	
Stopstrictive /KΣ/ [KΣ	E, G7	<u>[</u>]					<u>.</u>																			
Ungrooved stopstrictive [KX, G{]	+																					kç gi	kç G	kç 9‡		ΧÇ
Ungrooved stop- semi-strictive [K ^x , G ⁱ]	-																					k _y gi kç ^k ç	<u>91</u>	<u>91</u>		91
Ungrooved semi- stop-strictive by	+									Н				7							d	kç _ü ç	р		\dashv	\forall
stop-strictive by detension & proportion* [KX, Sy(*) Semi-grooved stopstrictive [K, GZ]]+				۲,	10															Ģ	kç [*] ç H [*] j			\perp	Щ
stopstrictive [K, GZ]	+				tf dz	tf dz																				
Grooved stopstrictive [K, G]	- +	tş dz	ţŷ dĝ		पू पि विवि	f	t d c	्र	් අ්	ť ďź	dž	₹ t	f t	t t	ê C	tş Z dz	tç dî				tş dz					
Grooved stop- semi-strictive [K, G ³]	-	- <i>l</i> b	1		tς	ts	- 	<u></u>	ع					,		tş		/			3	kç			l	3
Grooved semi-	+				भ प	dž H t								4	d	dž to to	р					32			ر ا	TE
stop-strictive by detension & proportion* [KS,G(*)]	+					4.1 [4][4										tş ^t ş dz ^{*d} z										
Lateral stopstrictive [KŁ, GŁ]	-				tţ	d p										tţ						k⁄k				П
	+				d∳									Ц	Ц	d∳						gk			Ц	Ш
Constrictive Σ [Σ , Σ] Ungrooved constrictive [Σ , Σ]	د <u>ا</u> -				 		-															ç	ç	ç€	ç	
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Ungrooved semiconstrictive [X, Y]	- +																					у i	Ĥ			H H
Lateralised ungrooved semiconstrictive [¾*]	- +																					1 1	у]			ม นู
Semi-grooved constrictive [S, Z]	- +				3	}																. ,0				\dagger
Grooved constrictive [S, 3]	-	Ş	ŝ		f		<u>[</u>		ζ «	j m A	ĵ	$\frac{1}{2}$	f	Ĵ	1	Ş	1 1	Ģ			ş					\dagger
Grooved semiconstrictive [S, 3]	-	Š	Ź		[3] 5 3	S 3 3 3			3	33	ă	<u>3</u> 3	3	\dashv	\dashv	Z Ş	Ź	Z			Z.	9	Ц			<u>ا</u> ا
	+	Ź			7	Z	2 2		_	_				10		Ž	03	C2	C.f	C =	06	3				3
	±	61	62	63	7' 7''	7 ⁻ 7 ^{-*}	$7^3 7^{3*}$	74	7°	7°	7′	7°	7"	7.0	7''	81	82	83	84	8,	8°	9 ¹	9²	9°	9*	9 ⁵ 9 ⁶

CONTOIDS (3B)	Voicing	Subapico-palatal	rounded	Velarised subapico-palatal rounded	Lamino-postalveo-palatal	protruded	over-rounded	Velarised lamino-postalveo-palatal	Lamino-postalveo-prevelar	protruded	over-rounded	Lamino-postalveo-velar	protruded	over-rounded	labiodentalised	Lamino-prepalatal	rounded	Bilabialised lamino-prepalatal	Labiodentalised lamino-prepalatal	Velarised lamino-prepalatal	Lamino-propalatal	Lamino-palatal	rounded	Uvularised lamino-palatal	rounded	Postpalatal	rounded	
Approximant & dynamic approx-	_	g Z	Ç 7													Н	у н					ļh is	hy			ļ i	hq	
& dynamic approx- imant /J/ [H, H & J] Semi-approximant	+	2	6						-						Н	J	ម			\dashv	\dashv	j _{fi} ,	ցնյ Կ	-		ţ _{fi}	կել խ	'
Semi-approximant & dynamic semi- approximant [A, A & J] Nasalised	+																						ւգ Կի				ւ Վ પૃ _{ષ્ષિ}	
Nasalised approximant [J]	+																					ĵĵ						
Trill, TAP & FLAP /R/ [R, R]																										
Trill [R, R]	-															<u></u> 3°												
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Пар [Я, Я]	<u> </u>	لم م	H	t			+		┢						Н	3				7	1		H					
	+	l l	İ																				İ					
Constrictive trill [K, R]	- +																											
Constrictive tap [K*, R*]	-																											
Lateralised	+		┢	╁				+	┢						Н	-	\vdash			\dashv	┪		┢					
tap & flap [兄, 兄] & [凡, 凡]	+																											
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Lateral /L/ [L , L]	+		ĵ		Į]]					1	λ λ						
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Constrictive (uni)lateral [Ł, Ł]	<u> </u>								T						Н	- 31					1	K						
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Semi-constrictive (uni)lateral [[£] , [£]]	+																					K K						
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		Vo Di	oiced	l C w	ith inj	jective phective pho n dejectiv	one [ʾΓ]			Car	perp noni th ab	cal a ove	rtN		IPA ation		Dip Dit	ohon ohon	ic pa ic pa	ir w	ith t ith t	ongue tongue tongue tongue tongue t	ip lo	ower aised	ed (*)			

CONTOIDS (4A)	Voicing	Prevelar	rounded	postalveolarised slightly rounded	Provelar	rounded	Velar	rounded	uvulo postalveolarised slightly r.	Velar-bilabial	Velar-dental	Velar-alveolar	Labiodentalised velar	Semi-dentalised velar	Semi-alveolarised velar	Uvularised velar rounded	Preuvular	rounded	Uvular	rounded	Pharyngealised uvular	rounded	Prepharyngeal	Pharyngeal	rounded	Laryngeal	rounded	Palatalised laryngeal	Velarised laryngeal	rounded	Uvularised laryngeal
Semi-nasal [N]	+				ŋ				1	ր									Ŋ												
Nasal/N/[N, N]	+	դ դ					ຶ່ງ ກຸ	ĝ		m	ŋ	ŋ	ŋ :	ŋ 1]				N N	ΩÎΙ	l i										
Stop /K/ [K, G]	-+	k g	**				k g	ķ ĝ		ф ф	-	ξ d		k g					q G	ĝ € Ĝ €	ı ĝ			₹							
Semi-stop [K, G]	-+	Э					k g	3		<u>J.</u>	3	3		3					d d		1			_		٦					
Laryngeal stop [ʔ]	_						Э																			7	} }				£
STORSTRICTIVE /KY/ [KY	_	<u> </u>					: ::																				_				
Ungrooved stopstrictive [KX, GX]	Stop [?] -																														
[KX, Gy]	+																		_ ~ ~	- •	1	1									١
Ungrooved stop- semi-strictive [K ^x , G ^r]	-+						kң	kӈ										k	ol												
Ungrooved semi- stop-strictive by detension & proportion* [KX,Sy(* Grooved	-]+						kx ^k x y [§] y p	kx ^k 9	p Y																						
stopstrictive [KS, G3]	+						P																								
Grooved stop- semi-strictive [18, G ³]	-+	l					-																								┫
Grooved semi- stop-strictive by detension &	_																														_
proportion* [炀,诏(*)] Lateral stopstrictive [烃, 任]	-+						kł gł												IF ⊒F												_
Trilled & tapped * stopstrictive [KK, GR(*)]	- +						92	-										tr	kĸ	kķ	tr										1
Constrictive /Σ/ [Σ, Z	_	_					: :												g _R	91									Ш	_	
Ungrooved constrictive [X, \(\)]	- +	¥ ¥					x V	$\begin{array}{ccc} \hat{x} & \hat{x} \\ \hat{y} & \hat{y} \end{array}$									R X		ĺχ	भ भ	I I	нÍ ìf	h ţ fi								
Ungrooved semiconstrictive [X, Y]	-	Ħ	ӈ			H W	Η Υ	ӈ w	<u> </u>								₽ ₽		k k	1	1		-	ħΙ	Į f	H I					
Semi-grooved constrictive [S, Z]	+ - +	Ť	ፄ 			*7	I	"									u		_ 							11				\dashv	\dashv
Laryngeal constrictive [H, Ĥ]	_																									ե հ	ا اَوْ ا	լ Է Մ	\dashv	\dashv	\dashv
Laryngeal semi- constrictive [H, H]	+ - +																									þ	₽ ₽ ₽	ŀţ.	-	\dashv	\dashv
	Ľ	Ц	_	<u> </u>	ب	닉		<u> </u>	Ц	Щ	ᆫ	6	7	8	10	11	لِــا	٢	3	_	ᆜ	6	L.	ب	Щ	16	<u>.</u> υ.	· y		<u> </u>	إ

 $\pm \ 10^{1} \ 10^{2} \ 10^{3} \ 10^{4} \ 10^{5} \quad 11^{1} \qquad 11^{2} \quad 11^{3} \ 11^{4} \ 11^{5} \ 11^{6} \ 11^{7} \ 11^{8} 11^{10} 11^{11} 12^{1} \ 12^{2} \ 12^{3} \ 12^{4} \ 12^{5} \ 12^{6} \ 13^{1} \ 13^{2} \ 13^{3} \ 14^{1} \ 14^{2} \ 14^{3} \ 14^{4} \ 14^{5} \ 14^{6}$

CONTOIDS (4B)	Voicing	Prevelar	rounded	postalved arised slightly rounded	Provelar	rounded	Velar	rounded	uvulopostalveolarised slightly r.	Velar-bilabial	Velar-dental	Velar-alveolar	Labiodentalised velar	Semi-dentalised velar	Semi-alveolarised velar	Uvularised velar rounded	Preuvular	rounded	Uvular	rounded	Pharyngealised uvular	rounded	Prepharyngeal	Pharyngeal	rounded	Laryngeal	rounded	Palatalised laryngeal	Velarised laryngeal	rounded	Uvularised laryngeal	
Approximant & dynamic approx-	-	l . –	hų		þ	խ	h	h									Ŧ		К			я̂к С		ţţ						Ī		
imant /J/ [H, H & J] Semi-approximant & dynamic semi-	+		Կ Կ Һ	Щ	պր խ	^w ն	պ _հ h	who								₩fe	Æ		Я	S B	ì	1	£ 9								-	
approximant [f ^I , f ^I & J] Nasalised	+		મુ _{ષિ} 			_ .യ്യിപ 	պի	Ա հս	_							ъ															_	
approximant [j] Dorso-lateralised approximant [[*] Lateralised semi-	+			Ţ			-	wω	Ŧ																							
Lateralised semi- approximant [[[]] Lenited	+			r	Щ				Ŧ.																	L	L 1	 1 ł	L		_	
laryngeal approximant [H, H]] -																									h h	ا ن	ţ ₽	~			
Lenited semi- laryngeal approximant [H, H]	-																									h h	<u>ի</u> 1 ճ 1	ŋł	ા મુ સુ			
Intermediately phonated laryngeal approximant [H]	-+		: :			ä	:																				ا ان	ış ı ış f	U	!		
Trill, TAP & FLAP $/R/$ [[R, R	.]						= = = = = = = = = = = = = = = = = = =	_	ī		Ť								_											_	
Trill [R, R]	+																		R₀ R	Ř Ř												
Тар [Я, Я]	-+																		R													
Пар [Я, Я]	-+																															
Constrictive trill [K, R]	- +						¥													I Ř Į Ř				ች ዋ		_					_	
Constrictive tap [K*, R*]	_						X													I, T				T								
Lateralised tap & flap [兄, 兄] & [兄, 兄]	-						Š												R												_	
	+						***																								_	
Lateral /L/ [L, L]	+	1					1	<u>l</u>				Ł					Ł		L													
Unilateral [£, £]	-																															
Constrictive (uni)lateral [Ł, Ł]	+ - +					o	4 1												₽ ₽													
Tapped lateral [J]	+																															
Semilateral [L]	+	Ŧ					Ţ	Ĵ											τ΄	_											\Box	
	All				_		_	ones; pla	ces o						cons	ider	ed fr															
		Vo Di	iced	C w	rith	injec	tive pĥo	one [Κ'] ne ['Γ] e phone			Ca Bo	th al	cal a	rtn i					Dip Dip	hon hon	ic p	air v air v	vith vith	tong tong	ue t ue t	ip lo ip ra	owere owere aised aised	ed (*)				red

PHONIC PECULIARITIES

SECO	NDARY	ARTICULATION	ī								
Ĉ	Ñ	Nasalised			V	Half-nasalised	~C		Pren	asalise	ed V Uvulo-pharyngealised
	\mathbb{N}	Bilabialised		\mathbb{C}		Semi-bilabialised	C	N	Labi	odent	talised C Semi- dentalised or alveolarise
Ç		Postalveolari	sed	Ç		Palatalised	E		Vela	rised	$oldsymbol{\mathbb{C}}$ Uvularised
≡C	Assi	milated to foll	owing C		Y	Latero-provelarised, ie	r-isatio	n (= [V	/] + [uj	[]; wit	th the tongue laterally contracted; unrounded)
AIRST	REAM	MECHANISMS					LABI	AL POS	ITIONS	S	
C'	Ejec	ctive		C	Deje	ective	Č	V	(Ove	er-)unı	rounded or Slightly rounded
,C	Inje	ctive		ζС	Pren	asalised dejective	Ĉ	Ã	(Ove	er- or I	Half-)rounded or Slightly unrounded
TYPES	OF PI	HONATION					MED	IODOR	SAL DI	SPLAC	EMENT
Č			Glottalised	l voice	eless o	r glottal release	Ç	Ÿ		X	Canonical central position
Č (C	(h)		Voiceless				Ç	V	4	×	Advanced
	V		Voiceless 1	enis o	r whis	per or totally devoiced	C C C	Ų	۲	×	Retracted
Ċ			Voiceless 1	enis o	r whis	per or Diaphonemic	Ç		T	X	Tenser or closer
	Ÿ		Normal or	Diap	honer	nic		V	-		Raised
Ĉ (C	$(^{6})$		Modally v	oiced			Ç		т		Laxer or opener
Ċ Ç	Ÿ		Voiced len	nis or b	reath	y voice		Ų	·	×	Lowered
Ç			Voiced cre	eaky o	· laryr	igealised	Ç	À	>	×	Advanced & raised
	Ų		Creaky vo	ice or	larynę	gealised	Ć	Ý	٧	X	Retracted & raised
Ç	V		Partially d	evoice	d or n	nixed phonation	ÇÇÇÇ	Ň	λ	x	Advanced & lowered
CONT	OID O	FFSETS					Č	Ž	٨	×	Retracted & lowered
C_*	Exp	loded		Çh	Çĥ	'Aspirated'				K	Greater degree of displacement
C	Une	exploded		hÇ	бĈ	'Pre-aspirated'			(4)	×	Lesser degree of displacement

Tacks can be combining or post-modifying, ie $\+V$ or $\+V$ -.

Linking (absence of a break)

f Neutral (unmarked)

Cx Vx f Extra-long

V⁺ f Half-long

C: V: fLong

C.

SYLLABIFICATION

DYNES (STRESS)

CC

C;

C

*\$ "\$ "\$ \$ \$ \$ C

Syllable break

Geminate

V: S Less than long
V. S Less than half-long

s Shortened (≡ Č& Ŭ)

Strongly tensed falsetto

S Half-extra-strong stress

S Half-strong stress

S Half-mid stress

Unstressed

f Strong stress or primary stress

f Mid stress or secondary stress

Destressed (from '\$/П/П)

Reduced stress (from:\$)

f Weak stress (normally unmarked)

Epenthetic stress or extra-weak stress

Reduced (duration identical to $\check{C} & \check{V}$) or extra-weak stress

f Extra-strong stress or emphatic stress

CHRONES (DURATION)

C Intense (ie syllabic)

V Non-syllabic

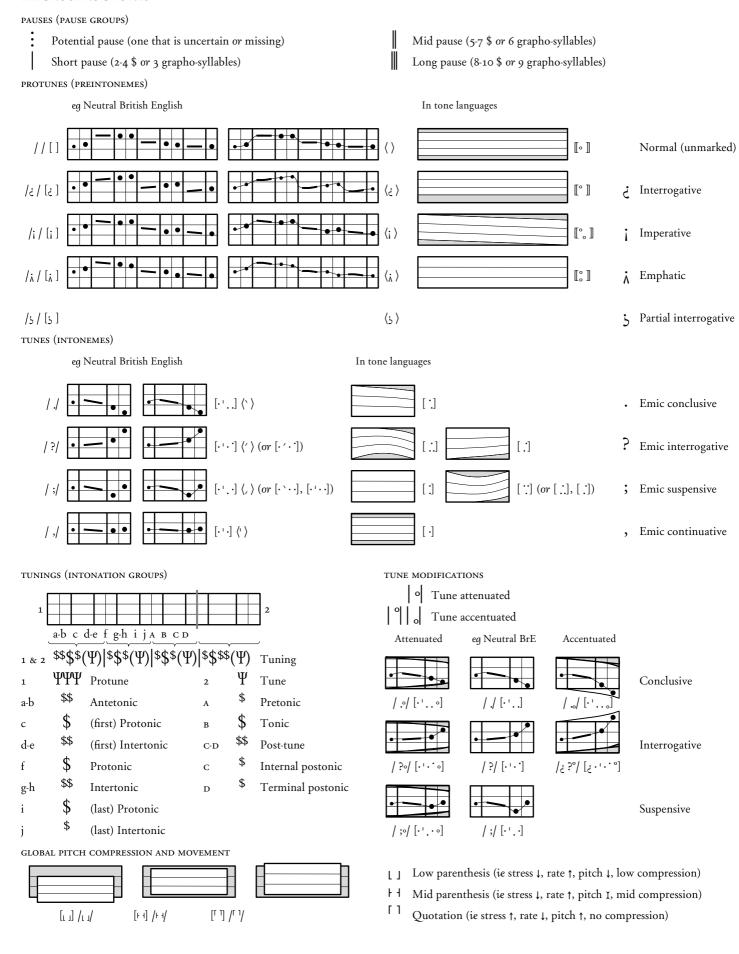
Й		
Ω,[R L N		
B Z GZ G		
Υ Ν Φ,Σ ΚΣ,Κ		
LEVEL TONES	COMPOUNI	D TONES
*\$ Extra-high		High pointing
=\$ -\$ "\$ '\$ '\$ High =\$ -\$ "\$ '\$ Half-high		Low pointing
		High blunting
"\$"\$'\$ \$ \$ _! \$•\$ •\$ Mid	ر\$.') \$ _۲	
<u>.</u> \$ <u>.</u> \$.\$.\$ Half-low	Γ\$ (″\$)	High sharpening
_\$ _\$\$.\$ _o \$ Low	r\$ (,·\$)	Low sharpening
GLIDING TONES	¹\$ (`·\$)	High flattening
"\$ '\$:\$ High rising	ر\$ (ږ.\$)	Low flattening
"\$ '\$ Fow rising	^\$ (′·\$)	High peaking
"\$ \\$.\\$ Low rising "\$ \\$.\\$ High falling	۸\$ (٫.\$)	Low peaking
"\$ '\$.\$ Low falling	v \$ (`\$)	High dipping
/\$ Sharp rising	, \$ (,∙\$)	Low dipping
\\$ \\$ Sharp falling]\$ (_*\$)	Sharp pointing
TONE TERRACING	\\$ (\$)	Sharp blunting
J\$ Upstep or	[\$ (;\$)	Sharp sharpening
distinctive pitch raising	\\$ (`.\$)	Sharp flattening
\$1 Downstep or	/ \$ (;:\$)	Sharp peaking
distinctive pitch lowering	\\$ (`\$)	Sharp dipping

CHRONETIC AND DYNETIC LEVELS

Fundamental, []

S Supplementary, []

MACROSTRUCTURES



SUPERSTRUCTURES

All superstructural (paraphonic) elements (0) shall be enclosed in angle brackets, which are elided for legibility in this table except for intonation markers in order to present their respective heights.

m

SPEECH RATE

SPEECH RHYTHM

PHONO-ARTICULATORY TIMING

PHONO-ARTICULATORY FORCE

- > Slowness
- Rhythmicity (eq in sarcasm)
- Unfilled hesitation pause Filled hesitation pause
- Strength

Quickness **>**)

ARTICULATORY QUALITY

Arhythmicity (eg in shyness)

Weakness

- Stiff lips \sim
- Labialisation (eg in pouting)
- Nasalisation (eg in boldness)
- Dialectal faucalisation

Stiff jaw X

- Dorsal backing (eg in disgust)
- Denasalisation (eg in a cold)

PARAPHONIC PITCH MOVEMENT

Dialectal pharyngealisation

PHONATORY QUALITY



Raised-larynx voice (eg in arrogance)

Lowered-larynx voice (eg in laziness)

Trembling voice

- () () Normal
- Raising or global rise

 $\langle ^{\circ} \rangle$

(eg in astonishment, aggressiveness or asking in kindness)

 $\langle \circ \rangle$

 $\langle\mathring{\gamma}\rangle$

Lowering or global fall (eg in sadness)

 $\langle ^{\circ} \rangle$

 $\langle {}^{\circ}_{\circ} \rangle$

- Expansion (eg in cheerfulness)
- Compression (eg in sleepiness)
- Raised peaking

LABIAL POSITIONS

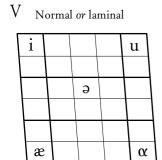
ટ્રે

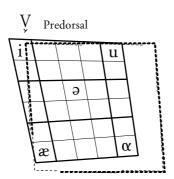
Rounded (eg in pouting)

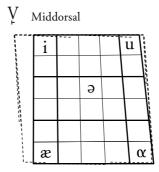
Singing

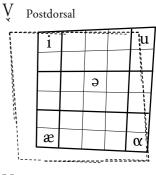
Unrounded (eg in a smile)

ARTICULATORY TONGUE SETTINGS

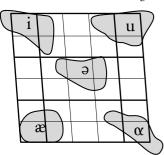




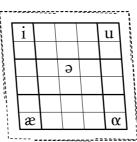




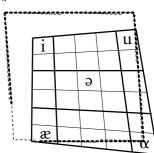
Combined areas of actual range







Radical



TONALITY STRUCTURE

Expansion of middle band and compression of the other two (esp in Black speech)







Normal bands

Black Bands

Re-normalised bands

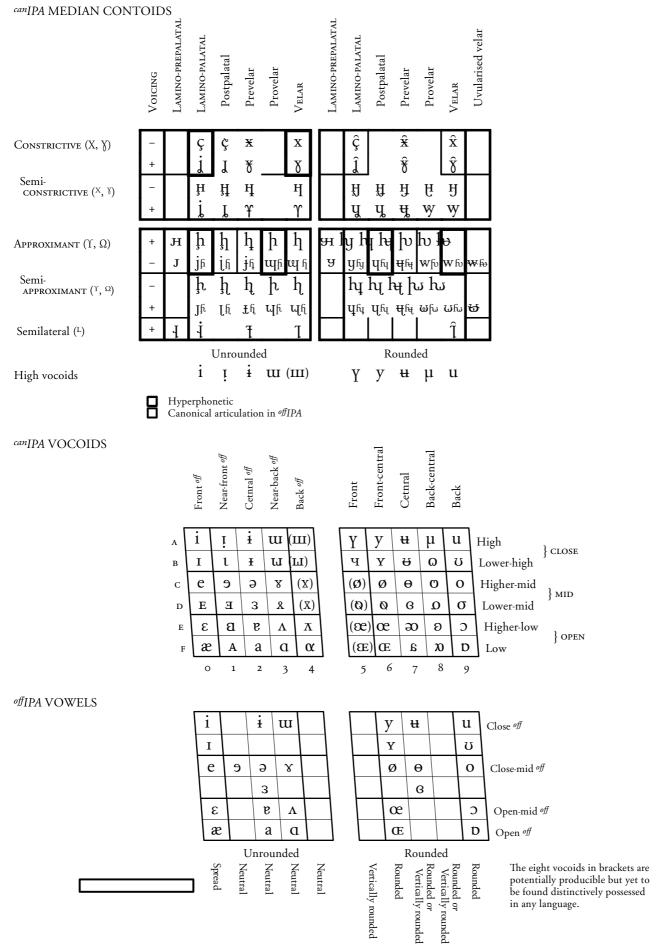
canIPA CONTOIDS

PLACE →					FRO	ONT								BA	CK		-			-	LARY	NGEAL
↓ MANNER	Bila	BIAL		BIO- NTAL	Dei	ntal A	LVEOL	AR	Po alve	ST- OLAR		ALVEO- RSAL	PAL	MEI ATAL	VEI	LAR	Uvt	JLAR		ARYN- EAL	Lary	NGEAL
Nasal		m		ŋ		(n)		n		η		ņ		ŋ		ŋ		N				
Ѕтор	p	Ъ			t	d	Ţ	þ	t	d			С	J	k	g	q	G				2
ungrooved Stopstrictive			pf										kç	ġį								
grooved					ts	dz					tſ	dз										
ungrooved Constrictive			f	v	θ	ð							ç	į	X	γ	χ	R	ħ			
grooved					S	Z	ş	Z	ş	z	ſ	3										
Approximant	ф	β		υ	ปี	δ		r					þ	j	þ	щ	K	Я		ξ	h	h
rounded										J		Ţ	hq	Ч	h	W						
Trill		В						r										R				
Тар				٧				ſ														
FLAP				η						ી												
Lateral						(1)		1		1		ļ		У		1						
constrictive							1	ł														

offIPA CONSONANTS (PULMONIC)

		•																				
PLACE \rightarrow		LAF	BIAL				_	COR	ONAL						DOE	RSAL			RAD	ICAL	LARY	NGEAL
↓ MANNER	Bila	BIAL		BIO- NTAL	Dei	NTAL A	LVEOI	.AR	Retr	OFLEX	-	OST- COLAR	Pal	ATAL	VE	LAR	Uvt	JLAR		RYN- EAL	GLO	TTAL
Nasal		m		ŋ		(n)		n		η		(J1)		ŋ		ŋ		N				
PLOSIVE	p	b			t	d	t	d	t	d			С	f	k	g	q	G			j	?
non-sibilant Affricate			pf										С	f								
sibilant					ts	dz					t∫	dz										
non-sibilant Fricative	ф	β	f	v	θ	ð							ç	j	X	γ	χ	R	ħ	ſ	h	ĥ
sibilant					S	Z	S	Z	ફ	ą	ſ	3										
Approximant				υ	θ	ð		J					h	j	h	щ		R				
labialised										J		(I)	h	Ч	M	W						
Trill		В						r										R				
Tap or Flap				٧				ſ		t												
LATERAL APPROXIMANT						(1)		1		1		(λ)		λ		L						
fricative							4	<u>lz</u>														

Where symbols appear in pairs, the one to the left represents a voiceless consonant, the right a modally voiced consonant, except for murmuredfi. Shaded areas denote articulations judged to be impossible. Tie bars are elided for legibility. Light grey letters are unofficial extensions of the IPA.



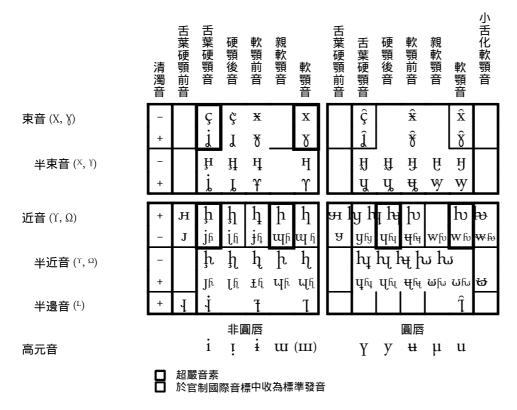
可納國際音標輔音音素

發音部位 →	前音									後音										喉音		
↓ 發音方法	雙唇音		唇齒音		齒音		齦音		齦後音		齦後 舌背音		_央 硬顎音		_音 軟顎音		小舌音		咽壁音		喉	音
鼻音		m		ŋ		(n)		n		η		ņ		ŋ		ŋ		N				
閉音	p	Ъ			t	d	İ	þ	t	d			С	J	k	g	q	G				5
縫音 問声 章			pf										kç	gį								
縫音 閉束音 槽音					ts	dz					tſ	dз										
縫音 束音			f	v	θ	ð							ç	į	X	γ	χ	R	ħ			
槽音					S	Z	ş	Z _i	કૃ	ą	ſ	3										
近音	ф	β		υ	ปี	δ		r					ļ	j	þ	щ	K	Я		£	h	h
圓唇										J		Ţ	hq	Ч	h	W						
顫音		В						r										R				
閃音				٧				ſ														
彈音				υ						J												
邊音						(1)		1		1		1		λ		1						
邊束音							1	1						·								

官制國際音標輔音(肺部氣流音)

日川図际日伝和日(かかれが日)																						
發音部位 →			音					舌兒	冠音						舌律	音		舌根音			喉音	
↓ 發音方法	雙唇	雙唇音 唇齒音		齒音		齦音		捲舌音		齦後音		硬顎音		軟顎音		小舌音		咽壁音		聲門音		
鼻音								n				(J1)		ŋ		ŋ		N				
破音	p	Ъ			t	d	t	d	t	þ			С	đ	k	g	q	G			j	?
呼音 附擦音 噝音			pf										С	đ								
					ts	dz					t∫	dz										
呼音 擦音	ф	β	f	V	θ	ð							ç	j	X	γ	χ	R	ħ	٢	h	ĥ
^勝 音					S	Z	S	Z	ફ	ą	ſ	3										
近音				υ	θ	ð		Ţ					h	j	h	щ		R				
唇化										J		(I)	h	Ч	M	W						
顫音		В						r										R				
閃音或彈音				٧				ſ		ţ												
邊近音						(1)		1		1		(λ)		λ		L						
邊擦音							1	<u>k</u>														

除濁送氣音 f. 外,成對出現的符號,左為清音,右為常態濁音。灰色欄位代表已判定為不可能的發音;空白欄位代表有可能的發音,惟目前尚未發現有語言將之收為音位。為清晰起見,上表省略連音符。灰色字體代表非標準擴充符號。



可納國際音標元音音素

