

# nabc language for gregorio

AL  
II  
**A** L-le- lú-ia.  $\gamma$ . Ve- ni Sancte  
Spí- ri- tus, replé tu- ó- rum corda fi- dé- li- um: et tu- i a- mór-  
is in e- is ignem ac- cénde.

CO  
II  
**O** M- nes \* qui in Chris- to bap- ti- zá- ti es- tis, Chris- tum in-  
du- í- stis, al- le- lú- ia.

The nabc language provides the ability to describe some adiaستمatic neumes, for now just the St. Gallen and Laon (Metz notation family) style. The language is partially based on Dom Eugène Cardine’s Table of neumatic signs, but for more complex neumes doesn’t always match how the neumes are called; instead attempts to make it easier to compose complex neumes from basic glyphs. To describe adiaستمatic neumes in gabc, the header should contain nabc-lines: 1; line, like:

```
nabc-lines: 1;
(f3) AL(ef~|ta>)le(fg/hggf|peclhgpilú(ef~|ta>)ia.(f.|ta-) (,)
(ii//|bv-|gh!ivHG//|vi-hhppu2su1sut1|fhg/|to|eef.|pt) (;)
```

The nabc snippets are then separated by | character from gabc snippets or other nabc snippets. Every gabc snippet may be followed by multiple nabc snippets. The maximum number of consecutive nabc snippets is the number declared in the header field nabc-lines: x;. After reaching that number of consecutive nabc snippets another gabc snippet followed by nabc snippets can follow. A single nabc snippet is not split into multiple lines, so for larger melismatic pieces it is desirable to synchronize the gabc snippets with corresponding nabc snippets. With nabc-lines: 1; the gabc and nabc snippets form an alternating pattern, like (gabc|nabc|gabc|nabc|gabc), in this case the last gabc snippet does not have any corresponding nabc neumes. With nabc-lines: 2; the snippets ordering could be e.g. (gabc|nabc1|nabc2|gabc|nabc1).

Each nabc snippet consists of a sequence of *complex neume descriptors*. Each *complex neume descriptor* consists of optional *horizontal spacing adjustment descriptor*, then *complex glyph descriptor*, optionally followed by a sequence of *subpunctis and prepunctis descriptors*, optionally followed by a sequence of *significant letter descriptors*.

The *horizontal spacing adjustment descriptor* consists of a sequence of horizontal spacing adjustment characters / and `.

- // move by nabclargerspace skip to the right
- / move by nabcinterelementsplace skip to the right
- `` move by nabclargerspace skip to the left
- ` move by nabcinterelementsplace skip to the left

The *complex glyph descriptor* consists of a *glyph descriptor*, optionally followed by a sequence of other *glyph descriptors*, all separated by the ! character. This is used to describe more complex glyphs, where certain basic glyphs are connected together.

Each *glyph descriptor* consists of a *basic glyph descriptor*, followed by optional *glyph modifiers*, followed by optional *pitch descriptor*.

The following description is for the St. Gall family of neumes, when using the gregall or gresgmodern fonts. For details on Laon (Metz notation family) neumes see 4.

The *basic glyph descriptor* is a two-letter string from the following table:

vi ✓ virga	po ✓ porrectus	tr ✓ torculus resupinus	tv // trivirga	pq ✓ pes quassus
pu . punctum	to ✓ torculus	st , stropha	pr ✓ pressus maior	q1 ✓ quilisma (3 loops)
ta . tractulus	ci ✓ climacus	ds .. distropha	pi ~ pressus minor	qi ✓ quilisma (2 loops)
gr \ gravis	sc ✓ scandicus	ts ... tristropha	vs ✓ virga strata	pt ✓ pes stratus
c1 ✓ clivis	pf ✓ porrectus flexus	tg : trigonus	or ✓ oriscus	
pe ✓ pes	sf ✓ scandicus flexus	bv ✓ bivirga	sa ✓ scandicus	

The glyph modifiers is a possibly empty sequence of following characters optionally followed by a number:






- S modification of the mark
- G modification of the grouping (neumatic break)
- M melodic modification
- - addition of episema
- > augmentive liquescence
- ~ diminutive liquescence





If Dom Cardine’s table contains multiple glyphs with the same modifiers, a positive number is added afterwards. E.g. for augmentive liquescent clivis the table shows two different glyphs, the ancus c1> ✓ and then another neume - c1>1 ✓, the first neume does not contain any number after it, while the 1 indicates first variant.

The *pitch descriptor* allows to specify the vertical position of the neume. There are no staves, so the vertical position is only rough. For pitches the same letters as in gabc are used, a through n and p. If the *pitch descriptor* is missing, the default is hf, otherwise it consists of the letter h followed by the pitch letter. Within the *complex glyph descriptor*, each *basic glyph descriptor* has its own pitch, but in the current fonts there are no glyphs with different relative pitches, so if you use a *pitch descriptor* on any of the *basic glyph descriptors* in the *complex glyph descriptor*, it is best to use the same one on all the other *basic glyph descriptors* in the same *complex glyph descriptor*.









The *subpunctis and prepunctis descriptor* consists of the letters su for subpunctis or pp for prepunctis, followed optionally by a modifier letter from the following table and finally a mandatory positive number of repetitions. If the modifier letter is missing, it is a punctum.

- t . tractulus
















































- u  tractulus with episema
- v  tractulus with double episema
- w  gravis
- x  liquescens stropha
- y  gravis with episema

Only subpunctis are normally used in neume classification, the prepunctis is a nabc concept to describe the rising sequence of punctis, tractulis etc. in the left low corner of some neume. While e.g. vipp2  describes the same neume as sc , the former form allows better control on how many punctis or tractulis or tractulis with episema etc. there are. Some examples: ppt3  stands for 3 raising tractulis with episema, while su1sut1sux1  stands for a punctum, followed by tractulus, followed by liquescens stropha.

The *significant letter descriptor* consists of the letters 1s, followed by a shorthand of the significant letter or common group of them, followed by a number - a rough position relative to the *complex glyph descriptor* glyph with prepunctis and subpunctis attached to it. If more than one *significant letter descriptor* is used on the same *complex neume descriptors* for the same position, then they are ordered in the order they are written in the nabc snippet at that position. The position numbers are:

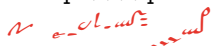
- |  |   |  |
|--|---|--|
| 1  left upper corner      | 2  above the neume | 3  right upper corner        |
| 4  to the left of the neume |   | 6  to the right of the neume |
| 7  left bottom corner       | 8  below the neume | 9  right bottom corner       |

The shorthands, including the 1s prefix, which should be followed by the above mentioned position digit:


lsa1  altius	lsiv  iusum valde	lss  sursum
lsam  altius mediocriter	lsk  klenche	lssb  sursum bene
lsb  bene	lsl  levare	lssc  sursum celeriter
lsc  celeriter	lslb  levare bene	lssimil  similiter
lscm  celeriter mediocriter	lslc  levare celeriter	lssimul  simul
lscw  coniunguntur	lslen  leniter	lssm  sursum mediocriter
lscw  celeriter (wide form)	lslm  levare mediocriter	lsst  sursum tenere
lsd  deprimatur	lslp  levare parvum	lssta  statim
lse  equaliter	lslt  levare tenere	lst  tenere
lseq  equaliter	lsm  mediocriter	lstb  tenere bene
lsew  equaliter (wide form)	lsmoll  molliter	lstm  tenere mediocriter
lsfid  fideliter	lsp  parvum	lstw  tenere (wide form)
lsfr  frendor	lspar  paratim	lsv  valde
lsg  gutture	lspfec  perfecte	lsvol  volubiliter
lsi  iusum	lspm  parvum mediocriter	lsx  expectare
lsim  iusum mediocriter	lspulcre  pulcre	

Finally a commented example of a nabc snippet:


``po///pe>2lse7ls13qlhh!vshppt1sut2q1>ppu3




`` stands for a negative horizontal skip (move to the left) by nabcinterelementsapace and nabclargerspace.

po  is a basic correctus, at the default pitch (height hf).



























/// stands for a horizontal skip (move to the right) by two times nabclargerspace.

pe>2lse7ls13  stands for the 3rd augmentive liquescent form of podatus (epiphonus with tractulus, see the following page) at the default pitch, with equaliter in the low left corner and levare in the upper right corner.





qlhh!vshppt1sut2  stands for a 3 loop quilisma joined with virga strata, both at relative pitch 2 above the default one, with a single tractulus before it and two subpunctis - tractulis.

q1>ppu3  is a 3 loop liquescent quilisma with 3 tractulis with episema before it.


















The *basic glyph descriptor* for Laon neumes is very similar to the one used for St. Gall neumes, but with uncinus and oriscus-clivis added and strophæ, 2 loops quilisma and gravis removed:

un  uncinus	pe  pes	tr  torculus resupinus	pi  pressus minor
vi  virga	po  porrectus	ds  distropha	vs  virga strata
pu . punctum	to  torculus	ts  tristropa	or  oriscus
ta  tractulus	ci  climacus	tg  trigonus	sa  scandicus
gr gravis	sc  scandicus	bv  bivirga	pq  pes quassus
cl  clivis	pf  porrectus flexus	tv  trivirga	ql  quilisma
oc  oriscus-clivis	sf  scandicus flexus	pr  pressus maior	pt  pes stratus
















The *subpunctis and prepunctis descriptor* consists of the letters su for subpunctis or pp for prepunctis, followed optionally by a modifier letter from the following table and finally a mandatory positive number of repetitions. If the modifier letter is missing, it is a punctum.

- n  uncinus
- q  quilisma
- z  virga
- x  cephalicus

The *significant letter descriptor* for Laon neumes allows another position, 5, which stands for inside the neume. The exact position of the letter depends on the glyph, if there is no glyph with the neume inside of it, it can't be positioned inside the neume. The shorthands, including the 1s prefix, which should be followed by the above mentioned position digit for Laon neumes are:

lsa  augete	lsnl  non levare
lsc . celeriter	lsnt  non tenere
lseq  equaliter	lsm  mediocriter
lseq-  equaliter	lsmd  mediocriter
lsequ  equaliter	lss  sursum
lsf  fastigium	lssimp  simpliciter
lsh . humiliter	lssimpl  simpliciter
lshn  humiliter nectum	lssp  sursum parum
lshp  humiliter parum	lsst  sursum tenere
lsl . levare	lst . tenere
lsn . non (tenere), negare, nectum, naturaliter	lsth  tenere humiliter

For the Tironian notes the form of the *significant letter descriptor* starts with the 1t prefix followed by letters from the following list, followed by above mentioned position digit (5 can't be used):

lti  iusum	ltsj  subjice
ltdo  deorsum	ltsl  saltim
ltdr  devertit	ltsn  sonare
ltdx  devexum	ltsp  supra
ltps  prode sub eam (trade subtus)	ltsr  sursum
ltqm  quam mox	ltst  saltate (salte)
ltsb  sub	ltus  ut supra
ltse  seorsum	

Names of Symbols	Simple Symbols	Symbols differentiated by				Symbols indicating a special meaning		
		the addition		the modification		melodic	phonetic	
		of letters	of episemas	of the mark	of the grouping (neumatic break)		augment.	diminut.
virga	vi	vilsc3 vilst1 vippt1lsc2	vi-				vi>	
tractulus	ta	talsc3 talst2					ta>	
punctum	pu						st visuisux1	
gravis	gr							
clivis	cl	cl1sc3 cl1st2 cl1-1st2	cl- clS-	clS clS1		clM	cl> cl>1	cl-
pes	pe		pe- pe-1	peS	peG	peG	pe> pe>1 pe>2	pe-
porrectus	po	polsc2	po- po-1		poG		po>	po-
torculus	to	to1sc3 to1st2 to1-1st2	to- to-1	toS toS1 toS2 toS3	toG	toM toM1	to>	to>
climacus	ci ci1	cilsc3 cilst2	ci-	ciS ciS1 visut1su2	ciG ciG1	ciM	ci>	ci-
scandicus	sc		sc-	scS	scG scG1	scM1	sc>	sc-
	sc1		vi-hevi-hivi-hm			vihevihivihm		
porrectus flexus	pf	pflsc2 pfl1sc2 pflst2	pf-	pfS	pfM	pfM	pf>	pf-
pes subbipunctis	pesu2	vippt1su2lsc3	pe-su2 pe-1su2 pe-1sut2	peSsu2 peSsut2	vippt1su2 toS2sut1	vi-!ci pesu1suw1	pesu1sux1	to>
scandicus flexus	sf	sflsc3	sf-	sfS	vi-tohk peclhi	sfM	cl>ppt2	sc>
torculus resupinus	tr	trlsc2 trlst2	tr-1	trS	trG trG1 trG2	trM	tr>	tr-
apostropha	st		st-	stS			st>	
distropha	ds	ds-lsx6	ds-				ds>	
tristropha	ts	ts-lsx6	ts-			tsM	ts>	
trigonus	tg tg1			tgS tgS1 tgS3		tgM		ds>
bigirga & trivirga	bv tv		bv- tv-				bv>	
pressus	pr pi	prlsc2 pr-lsc2 prlst2 pilsc2 pilst2	pr-			prM	pr> pi>	vs> or>
virga strata	vs	vslsc3 vslst2	vs-				vs>	ta>
oriscus	or						or>	
salicus	sa sa1	salsfr1 saM1l1sfr1	sa- sa-1		saG	saM saM1 saM2	sa> sa->1	pe>2
pes quassus	pq	pqlsfr1	pq-				pq>	
quilisma	ql qi		ql- qi-				ql> qi>	
pes stratus	pt							

Table from Cardine's Gregorian Semiology, pp. 12-13 with nabc strings and gregall glyphs.

Name of Symbols	Simple Symbols	Symbols differentiated by			Symbols indicating a special meaning		
		the modification		the addition of letters	melodic	phonetic	
		of the mark	of the grouping (neumatic break)			Liquescence	
			augment.	diminut.			
uncinus	un						
punctum	pu						
virga	vi	viS vipp2su2vihh				vi>1	
tractulus	ta	ds ts		talst2 tslsc2lst2		ta>2	
clivis	cl		clG	c1l1sn9 c1l1st9 c1G1sa5	clG1 clM	cl> cl>1	vi> ta>2
pes	pe		peG	pelsn3 pelst2 pelsc2		pe>1	ta>
porrectus	po		poG		poM	po>	
torculus	to	toS1	toG	toG1sa5 toS1sa5 toSsun11sa5 tolst9		to>	
climacus	ci	pusu1sun1 visu2 unsun2		visu2lst3			cl>1
scandicus	sc sc1	vippn1pp1 vippn2	pevihl	sclst2 pelst2vihl pelsa2vihl		vi>1pp2	ta>ppn1 ta>pp2
porrectus flexus	pf1	pfS	unhg'to po'un	unhg1st2'to po'unlsa2	pfM	pf>	
(pes subbipunctis)	tosu1	tosun1	vippn1su2 unppn1sun2	tosu11sc5 tosun11sa5			
			visulsun1	unlst2'puhisu1sun1			
scandicus flexus	sf		unhd'to sfG	unhd1st2'to pelst2clhh			
torculus resupinus	tr	trS	poppn1 pe'peG	trS1sc1 trlst3 trlst9		tr>	pe'ta>
clivis + pes or torculus	cl!pe cl!to	→ toS!pe	toS!to				
oriscus	or or1	isolated & at the syllabic articulation	ql			or>	
			oc oc!vi pq pq1				
		inside the neume	tg				
			cl1!or cl1!pi cl1!pi!vi cl1!pi!cl cl1!pi!to				
			to!or				
			sa sal				
			vs vsG		pe!or		
quilisma	ql ql!cl ql!po						
pes stratus		pt1					

Table from Cardine's Gregorian Semiology, pp. 14-15 with nabc strings and grelaon glyphs.

Table with nabc strings and corresponding gregall and gresgmodern glyphs:

bv		//	cllsc3		missing	pe!vi		//
bv-		//	cllst2		missing	pe-		//
bv-sut2		missing	clpp2			pe-1		//
bv>		//	clppt1			pe-1su1sut1		//
ci		/.	clppt2			pe-1su1sut2		//
ci-		/.	cl~			pe-1su1suu1		//
ci-pp2		/.	ds			pe-1su1suu2		//
ci1		/.	ds-			pe-1su1suw1		//
ci>		/.	ds>			pe-1su2		//
ciG		/.	ds!sx6		missing	pe-1sut1suw1		missing
ciG1		/.	gr			pe-1sut1sux1		//
ciM		/.	gr-			pe-1sut2		//
ciM-	missing	/.	gr-lsc6		missing	pe-1sut3		//
ciS		/.	lsal			pe-1suu1su2		missing
ciS1		/.	lsam			pe-1suw2		//
ciSppt1		/.	lsb			pe->		//
cilsc3		missing	lsc			pe->1		//
cippt1		/.	lscm			pe-su1sut1		//
cippt1lsc3		missing	lsc			pe-su2		//
cippu1		/.	lscw		missing	pe-su2suy1		//
cippu1lsc3		missing	lsd		missing	pe-su3sut1		//
ci~		/.	lse			pe-su4		//
cl		/.	lseq		missing	pe>		//
cl!cl>1		/.	lsew		missing	pe>1		//
cl!clS		/.	lsfid		missing	pe>2		//
cl!clSsut2		/.	lsfr			pe>ppt1	missing	//
cl!pi		/.	lsg			peG		//
cl!pilsc1lst3		missing	lsi			peS		//
cl!pilsc2		missing	lsim			peSsu1sux1		//
cl!po		/.	lsiv		missing	peSsu2		//
cl!po-1		/.	lsk			peSsut1su2		//
cl!po>		/.	lsl			peSsut2		//
cl!po>ppt1		/.	lslb			peSsut3		//
cl!pr		/.	lslc			peppt1		//
cl-		/.	lslen		missing	pesu1sut1		//
cl-!pi		/.	lslm			pesu1sut2		missing
cl-1su2		/.	lslp			pesu1sut3		//
cl->		/.	lslt			pesu1suu1		//
cl->1		/.	lsm			pesu1suw1		//
cl-lst2		missing	lsmoll			pesu1sux1		//
cl-ppt1	missing	/.	lsp			pesu2		//
cl-ppt2		/.	lspar		missing	pesu2sut1		missing
cl>		/.	lspfec		missing	pesu2suv1		//
cl>1		/.	lspm			pesu3		//
cl>pp2	missing	/.	lspulcre		missing	pesut2		//
cl>ppt2		/.	lss			pesuv1su1sut1		//
clM		/.	lssb			pe~		//
clM-		/.	lssc			pf		//
clMpp2	missing	/.	lssimil			pf!cl-		//
clS		/.	lssimul		missing	pf!clM-		//
clS-		/.	lssm			pf!clM-ppt1		//
clS-1		/.	lsst			pf!cl~		//
clS-su2		/.	lssta		missing	pf!cl~ppt1		//
clS1		/.	lst			pf!pr		//
clSsu1sut1		/.	lstb			pf-		//
clSsu2		/.	lstm			pf1lsc2		missing
clSsut1		/.	lstw		missing	pf>		//
clSsut1sux1	missing	/.	lsv		missing	pfG		//
clSsut2		/.	lsvol		missing	pfM		//
clSsuu1su2		missing	lsx			pfM-	missing	//
clSsux1	missing	/.	or			pfMsut1		//
			or>			pfMsuu1	missing	//
			pe					//

pfS			pt			ql!vsppt1sut2		
pflsc2		missing	pu			ql!vssu2		
pflst2		missing	qi			ql!vssu3		
pf~			qi!cl			ql!vssut2		
pi			qi!cl-			ql-		
pi>			qi!cl>			ql-ppt1		
piM		missing	qi!clppt1			ql-ppt1su1sut2		
pilsc2		missing	qi!po			ql-ppt1su1suu1		
pilst2		missing	qi!po>		missing	ql-ppt1su1sux1		
pisu1			qi!vs			ql-ppt1su2		
pisut1			qi!vsppt1			ql-ppt1su3		
po			qi!vsppt1su1sut2		missing	ql-ppt1sut2suu1		
po-			qi!vsppt1su2			ql-ppt1suu2		
po-1			qi!vssu1sut2		missing	ql-ppt2su1suv1su2		
po-1pp2su1sux1			qi!vssu2			ql-su1sut1		
po-1su1sux1			qi-			ql-su1sut2		
po-1su2			qi-ppt1su1sut2			ql-su1suu1		
po-2		missing	qi-ppt1suu1su1sut2		missing	ql-su1suu2		
po>			qi-su1sut2			ql-su1suv1su2		
poG			qi-su1sux1			ql-su1sux1		
poG-			qi-su2			ql-su2		
poG-1		missing	qi-sut2			ql-su3		
poG1		missing	qi-sut3			ql-sut1sux1		
polsc2		missing	qi-su1su1sut2		missing	ql-sut2		
posu1sut1		missing	qi>			ql-sut2suu1		
posu2			qi>ppt1			ql-suu2		
po~			qippt1			ql>		
pp1			qippt2sut2			ql>ppt1		
pp2			qisu2		missing	qlppt1		
pp3			qisut1sux1			qlppt1su2		missing
pp4			qisut2			qlppt1sut3		
pp5		missing	ql			qlsu2		missing
ppt1			ql!cl			qlsut2		
ppt2			ql!cl!cl>			qlsut3		
ppt3			ql!cl!cl>ppt1			sa		
ppt4			ql!cl!pi			sa!cl		
ppt5			ql!cl!pippt1			sa!cl-		
ppu1			ql!cl-			sa!cl>		
ppu2			ql!cl>			sa!clS-1		
ppu3			ql!cl>ppt1			sa!clS1		
ppu4			ql!cl-ppt1			sa!clS1lsc2		missing
ppu5			ql!cl>ppt1			sa-		
pq			ql!clM			sa-1		
pq!cl			ql!clMppt1			sa->1		
pq!cl-			ql!clS		missing	sa-lsfr1		missing
pq!cl>			ql!clS-2			sa-su2sut1		
pq-			ql!clS-2ppt1			sa1		
pq-su2			ql!clS-2ppt1sut1			sa1!cl->		
pq>			ql!clS-2sut1			sa1!cl>		
pqS			ql!clppt1			sa>		
pqS-		missing	ql!pf			sa>1		missing
pqS>			ql!pf-			sa>2		
pqlsfr1		missing	ql!po			saG		
pr			ql!po-1			saM		
pr-			ql!po-1ppt1			saM-1		
pr-lsc3		missing	ql!po>			saM-4		
pr>			ql!poppt1			saM1		
prM			ql!po~			saM2		
prlsc2		missing	ql!po~ppt1			saM3		
prlst2		missing	ql!vs			saM4		
pr~			ql!vsppt1					
			ql!vsppt1su2					



saM5		missing	sut1sux1		toG	
saM5ppt1		missing	sut2		toM	
salsfr1		missing	sut2su2		toM-	missing
sapp1			sut2suu1		toM1	
sa~			sut2sux1	missing	toM2	missing
sc			sut2suy1		toM2-	missing
sc-			sut3		toM3	
sc-1	missing		sut3suw1		toS	
sc1			sut3suy1		toS1	
sc>			sut4		toS2	
scG			suu1		toS2su2	
scG-1			suu1su1sut2		toS2sut1	
scG1			suu1su2		toS2sut2	
scM	missing		suu2		toS2sux1	
scM1			suu2su2		toS3	
scM2			suu3		toS3lst2	missing
scS			suv1		toS4	missing
sc~			suv1su1sut1		toSsu2	
sf			suv1su2		tolsc3	missing
sf-			suw2		tolsc4lst3	missing
sf>	missing		ta		tolst2	missing
sfG	missing		ta-		toppt1	missing
sfG1	missing		ta>		toppu1	
sfM			talsc3		tr	
sfM1	missing		talst2		tr-	missing
sfS			tg		tr-1	
sflsc3		missing	tg1		tr-1su2	
st			tgM		tr-2	missing
st-			tgS		tr-3	
st>			tgS-		tr~	
stS			tgS1		tr~1	
su1			tgS2	missing	tr>	
su1sut1			tgS3		trG	
su1sut1su1sut1			tgS4		trG1	
su1sut1su2			tgSsuu1		trG2	
su1sut1sux1			tgssuu1		trM	
su1sut1suy1			to		trS	
su1sut2			to!ciG		trS-	
su1sut2su1			to!ciGhh		trS1	
su1sut3			to!cl		trSsut2	
su1suu1			to!cl!cl		trlst2	missing
su1suu1su1			to!cl!cl!cl		trsu3	missing
su1suu1su2			to!cl!pi		tr~	
su1suu2			to!cl!po		ts	
su1suv1			to!cl!po-1		ts-	
su1suw1			to!cl-		ts>	
su1sux1			to!cl!cl-		tsM	
su2			to!cl-1		tsM-	
su2sut1			to!clS		tslsx6	missing
su2suv1			to!pi		tv	
su2suw1			to!po		tv-	
su2sux1			to!posu2		vi	
su2suy1			to!pr		vi-	
su3			to-		vi!ci	
su3sut1			to-1		vi!vi!vi	
su4			to-1su1		vi!vi!vi	
su5			to-1su2		vi->	
sut1			to-1suu1		vi-lst3	missing
sut1su1sux1	missing		to-1suu1su2		vi-pp2	
sut1su2			to->		vi-pp4	
sut1suu1			to>		vi-ppt2	
sut1suw1		missing	to>1		vi-ppt3	
			to>2	missing	vi-su1sut1	
			to>pp2			

vi-su1sut1su2		vi>ppt2		visu2lsc3		missing
vi-su1sut2		vi>ppt3		visu2sut1		missing
vi-su1sut2su1		vilsc3		visu2suw1		
vi-su1suu1		vilst1		visu2sux1		
vi-su1suu1su1		vipp2		visu3		
vi-su1suu1su2		vipp3		visu5		
vi-su1suu2		vipp4		visut1su2		
vi-su1suw1	missing	vipppt1su1sut1		visut1sux1		
vi-su1sux1		vipppt1su2		visut2		
vi-su2		vipppt1su2lsc3		visut2su2		
vi-su2sut1		vipppt2		visut2sux1		missing
vi-su2suw1	missing	vipppt3		visut2suy1		
vi-su2sux1		vippu1su2		visut3		
vi-su3		visu1su2lsc3		visut3suw1		
vi-su4		visu1sut1		visut3suy1		
vi-sut1su2		visu1sut1su1sut1		visut4		
vi-sut1suu1		visu1sut1su2		visuu1su2		
vi-sut1sux1	missing	visu1sut1sux1		visuu2su2		
vi-sut2		visu1sut1suy1		visuv1su2		
vi-sut2sux1	missing	visu1sut2		vs		
vi-sut3		visu1suu1		vs-		
vi-sut4		visu1suu1su2		vs->		
vi-suu1su2		visu1suv1		vs>		
vi-suu2		visu1suw1		vslsc3		missing
vi-suu2su2		visu1sux1		vslst2		missing
vi-suu3		visu2		vs~		
vi>						
vi>pp2						

Table with nabc strings and corresponding grelaon glyphs:

bv	٩٧	cl1!pi!tosun1	٩٧	lssimpl	٩٧	pelsa2	٩٧
bvlsa2	٩٧	cl1!pi!vi	٩٧	lssp	٩٧	pelsc2	٩٧
bvsun4	٩٧	cl1!pi>	٩٧	lsst	٩٧	pelsl2	٩٧
ci	٩٧	cl1!pils3lsa6	٩٧	lst	٩٧	pelsm2	٩٧
cilsf1	٩٧	cl1!pilsn8	٩٧	lsth	٩٧	pelsn2	٩٧
cilsn8	٩٧	cl1!pilsn9	٩٧	ltdo	٩٧	pelsn3	٩٧
cl	٩٧	cl1!pilst9	٩٧	ltdr	٩٧	pelsst1lsm4	٩٧
cl!cl!cl	٩٧	cl1!pipp2	٩٧	ltdx	٩٧	pelsst2	٩٧
cl!cl!cilsn9	٩٧	cl>	٩٧	lti	٩٧	pelst2	٩٧
cl!cl!clsun1lsa5	٩٧	cl>1	٩٧	ltps	٩٧	pesu2	٩٧
cl!cl!pi	٩٧	cl>1pp2	٩٧	ltqm	٩٧	pesu2lst3	٩٧
cl!cl!pi!vi	٩٧	cl>lsa5	٩٧	ltsb	٩٧	pesu2sun1	٩٧
cl!cl!po	٩٧	clG	٩٧	ltse	٩٧	pesun3	٩٧
cl!cl!to	٩٧	clG1	٩٧	ltsj	٩٧	pesun3lss1lsa3	٩٧
cl!or	٩٧	clGlsa5	٩٧	ltsl	٩٧	pf	٩٧
cl!orpp2	٩٧	clGlsnl2	٩٧	ltsn	٩٧	pf1	٩٧
cl!pe	٩٧	clM	٩٧	ltsr	٩٧	pf2	٩٧
cl!pelsc2	٩٧	clshn8	٩٧	ltst	٩٧	pf>	٩٧
cl!pelsn7	٩٧	cllsm2	٩٧	ltus	٩٧	pf>1	٩٧
cl!pelst2	٩٧	cllsn8	٩٧	oc	٩٧	pf>2	٩٧
cl!pi!vi>	٩٧	cllsn9	٩٧	oc!cl	٩٧	pfM	٩٧
cl!po	٩٧	cllsnt2	٩٧	oc!clM	٩٧	pfMlsm3	٩٧
cl!popp3	٩٧	cllsst6	٩٧	oc!pe	٩٧	pfS	٩٧
cl!to	٩٧	cllsst8	٩٧	oc!pe!pu	٩٧	pfppn1ppq1sun1lsa5	٩٧
cl!to!cl!cl	٩٧	cllst9	٩٧	oc!vi	٩٧	pfsun1	٩٧
cl!to!pi	٩٧	clsu2sun1lst6	٩٧	oc!visun1	٩٧	pfsun1lsn5	٩٧
cl!to!pi!cl	٩٧	clsu3lst5	٩٧	ocG	٩٧	pf~	٩٧
cl!to!pi!clpp2	٩٧	clsun1lst5	٩٧	ocG1	٩٧	pf~1	٩٧
cl!to!pi!clpp2lsn9	٩٧	ds	٩٧	ocGlsa5	٩٧	pi	٩٧
cl!to!pipp2	٩٧	ds1	٩٧	oclst8	٩٧	po	٩٧
cl!to>	٩٧	ds1!clsu1sun1	٩٧	or	٩٧	po>	٩٧
cl!tolst9	٩٧	ds1!clsu1sun1lst5	٩٧	or1	٩٧	po>1	٩٧
cl!topp2	٩٧	ds1!clsun2	٩٧	or>	٩٧	po>pp2	٩٧
cl!toppz1su1sun1	٩٧	ds1!clsun2lst5	٩٧	or>lsa1	٩٧	po>ppn1	٩٧
cl!tosu1	٩٧	ds1!ds1	٩٧	orlst3	٩٧	po>ppn1ppz1	٩٧
cl!tosu1lsc6	٩٧	ds1!ts	٩٧	orsu1sun1	٩٧	poG	٩٧
cl!tosu1lsc6lst8	٩٧	ds1!ts1	٩٧	orsu1sun1lsc2	٩٧	poM	٩٧
cl!tosun1lsa5	٩٧	ds1pp3	٩٧	orsu1sun1lsc3	٩٧	poMsun1	٩٧
cl1!or	٩٧	dslst2	٩٧	pe	٩٧	polsf2lst3	٩٧
cl1!orlsc3	٩٧	dslst8	٩٧	pe!or	٩٧	polst2	٩٧
cl1!orlss3	٩٧	lsa	٩٧	pe!pu	٩٧	popp2	٩٧
cl1!orpp2	٩٧	lsc	٩٧	pe!ta	٩٧	popp2su1sux1	٩٧
cl1!orpp2	٩٧	lseq	٩٧	pe!ta>2	٩٧	poppn1	٩٧
cl1!orsun1	٩٧	lseq-	٩٧	pe!ta>2lsa2	٩٧	posu1sun1	٩٧
cl1!orsun1lsa5	٩٧	lsequ	٩٧	pe!talsa2	٩٧	posun1lsa5	٩٧
cl1!pi	٩٧	lsf	٩٧	pe!talsc1lst2	٩٧	posux1	٩٧
cl1!pi!cl	٩٧	lsh	٩٧	pe!un	٩٧	pp1	٩٧
cl1!pi!orsun1	٩٧	lshn	٩٧	pe!unlsc2	٩٧	pp2	٩٧
cl1!pi!pesu2	٩٧	lshp	٩٧	pe>	٩٧	pp2ppn1	٩٧
cl1!pi!pi!vi	٩٧	lsl	٩٧	pe>1	٩٧	pp3	٩٧
cl1!pi!pisun1lsa5	٩٧	lsm	٩٧	pe>1lsa6	٩٧		
cl1!pi!to	٩٧	lsmd	٩٧	peG	٩٧		
cl1!pi!tosu1	٩٧	lsn	٩٧	peG1	٩٧		
		lsnl	٩٧	peGlsa6	٩٧		
		lsnt	٩٧	peGlsf1	٩٧		
		lss	٩٧				
		lssimp	٩٧				

pp4	ql!cl!tr>ppz1	qlsux1	to
ppn1	ql!clppn1	sa	to!cl
ppn1pp1	ql!po	sa1	to!cl!cl
ppn1pp1ppz1	ql!po>	sa1lsc4	to!cl!cllst9
ppn1ppq1	ql!po>ppn1	sa1lsc6	to!cl!clsu1
ppn1ppz1	ql!pol1sa1lsc3lsc9	sa1sun1lsc5	to!cl!clsun2
ppn1ppz1ppq1	ql!pol1sm1	sa>	to!cl!clsun2lsc5
ppn2	ql!popppn1	salsc4	to!cl!orsun1
ppn2ppz1	ql!popppn1lst2	salsc6	to!cl!pi
ppn2ppz1ppq1	ql!popppn1sun1	sc	to!cl>1
ppn3	ql!popppn1sux1	sc1	to!clM
ppn3ppz1	ql!popppz1	sc1lsc4	to!clsu1sun1
ppn4	ql!popppz1lsc3	sclst2	to!clsu1sun1lsc6
ppq1	ql!popppz1su1sun1	sf	to!clsu2
ppz1	ql!posu1sun1	sfG	to!clsu2lsc6
ppz1ppq1	ql!posun1	su1	to!clsun1
pq	ql!posun1	su1sun1	to!clsun1lsc5
pq1	ql!posux1	su1sun1su1	to!or
pr	ql>	su1sun1su2	to!orlsc6
pt1	ql>ppn1	su1sun2	to!orlst3
pt1ppn1	ql>ppn1lsc3	su1sux1	to!orsun1lsc5
pt2	qls1st2	su2	to!pi!cl
pt3	qlppn1	su2sun1	to!pi!cl!pi!orsun1lsc5
pu	qlppn1ppz1	su3	to!pi!cl!pi!pi
pu1	qlppn1ppz1lst2	su4	to!po
pulsnt3	qlppn1ppz1su1sun1	sun1	to!pohd
pupp1su1sun1	qlppn1ppz1sun1	sun1su1	to!to
pupp1su2	qlppn1ppz1sun1lsc5	sun1su1sun1	to!to!pi!cl
pupp2su1sun1	qlppn1su1sun1	sun1su2	to!to!pi!clpp2
pupp2su2	qlppn1su1sun2	sun2	to!toppn1sun1
puppn1su1sun2	qlppn1su2	sun2su1	to!tosun1
pupppz1su1sun2	qlppn1su2lsc1	sun2su2	to>
pupppz1su2	qlppn1sun1	sun3	to>2
pusu1sun1	qlppn1sun1lsc5	sun4	to>2lsc3
pusu1sun1lsc1	qlppn1sun1su2	sux1	to>2lsc1lsc3
pusu1sun1lst7	qlppn1sun1su2	ta	to>lsc5
pusu1sun2	qlppn2sun1	ta>	to>pp2
pusu1sun2lsc5	qlppn2sun1lsc5	ta>1	toG
pusu2sun1	qlppn2sun2	ta>2	toGlsa1lst8
pusu3	qlppn2sun2lsc5lsc5	ta>2lsc2	toGlsa5
pusu4	qlppz1su1sun1	ta>lsc1	toS
ql	qlppz1su2	ta>pp2	toS!pe
ql!cl	qlsu1sun1	ta>ppn1	toS!to
ql!cl!or	qlsu1sux1	tasu2	toS!tolst9
ql!cl!orppn1ppz1	qlsu2	tg	toS1
ql!cl!to	qlsun1	tg!cl	toSlsa5
ql!cl!to!or	qlsun1lsc5	tg!cl>1	toSsun1lsc5
ql!cl!to!orsun1	qlsun1su2	tg!cllsc9	tolsc4
ql!cl!tolst6	qlsun2	tg!or	tolscn8
ql!cl!toppn1	qlsun2lsc5	tglsn8	tolscnt2lst9
ql!cl!tosu3		tglsn9	tolst9
ql!cl!tosu3lst6		tglsun1lsc5	tolsth8
ql!cl!tr>			topp1su1
			topp1su1lsc6
			topp2
			topp2sun1

toppn3ppz1sun1	tssun1lsa5	unsun2su2	vippn1su1sun1lst2
tosu1	tv	unsun3	vippn1su2
tosu1lsc5	tvlsm2	unsun3lsa3	vippn1sux1
tosu1sun1	un	unsun3lsa6	vippn2
tosu1sun1lsc6lst7	un!clG	unsux1	vippn2lsa4
tosu1sun1lsc6	un1	vi	vippn2lsc4
tosu2	un1lst8	vi>	vippn2lst3lsa4
tosu2lst6	un1ppn1ppq1sun2	vi>1	vippn2ppz1ppq1
tosun1	un1ppn1sun1su2lsa5	vi>1sa2lsc8	vippn2ppz1ppq1lst2lsa8
tosun1lsa5	un1ppn1sun2	vi>1pp2	vippn2ppz1sun1lsa5
tosun1su1sun1	un1sun1su1sun1lsa1lsc4	vi>1ppn1ppz1ppq1	vippn2sun1
tosun1su2lsc3lst6	un1sun1su1sun1lsa3lsc6	vi>2	vippn2sun1lsa4
tosun2	un1sun1su2	vi>lsa6	vippn3
tosun2lsa6	un1sun1su2lsa5	vi>lsc6	vippn3su4
to~	un1sun2	viS	vippn3sun1lsa5
tr	un1sun2su2	vilss1	vippn4
tr>	un2	vilss2	vippq1
trS	un2lsm1	vilst1	vippz1ppq1
trSlsc1	unlsm1	vilst2	visu1sun1
trlss1lsc3	unlsm2lsc3lst8	vilst2lsa8	visu1sun1su1
trlst3lshp7	unlst1	vilst9	visu1sun1su1lst6
trs2	unlst2	vipp2ppn1	visu1sun1su2
trs2lst3lsm8	unlst8	vipp2su2	visu1sun1su2lsc1lst6
trsun1lsa3lsa5	unppn1ppz1sun1	vipp2sun1lsa5	visu1sun2
trsun1lsa5	unppn1ppz1sun1lsa5	vipp3	visu1sun2lsa5
trsun1su2	unppn1sun1su2	vipp3lsc3	visu1sun2lsa6
trsun1su2lsa3	unppn1sun2	vipp4	visu2
trsun2	unppn1sun2lsa5	vipp4lst2	visun1su1sun1
trsun2lsa5	unppn1sux1	vippn1pp1	visun1su1sun1lst6
trsux1	unppn1sux1lsa5	vippn1pp1ppz1	vs
trsux1lsa5	unppn3sun1lsa5	vippn1pp1ppz1lst8	vsG
trsux1lst8	unsun1su1	vippn1pp1su1sun2	
ts	unsun1su1lst2lsc6	vippn1ppq1	
ts1	unsun1su2	vippn1ppz1ppq1	
ts>	unsun2	vippn1su1	
ts>1	unsun2lsa5	vippn1su1sun1	
ts>lsc2	unsun2su1		
ts>lsc6			
tslsa2			
tslsc2lst2			

# manuscript sources of the gregall font

The list of glyphs uses following abbreviations for manuscript references; the page number is always for the start of some antiphon, responsory, mass propers, even when the actual neume is on a later page. At the end of lines, GT stands for Graduale Triplex, Solesmes, 1979, OT for Offertoriale Triplex, Solesmes, 1985, AM for Antiphonale Monasticum, Solesmes, 1934, ARII for Antiphonale Romanum II, Solesmes, 2009 and NR for Nocturnale Romanum, Hartker Verlag, 2002, followed by page number which also contains the corresponding propers, antiphons or responsories.

Most of the glyphs taken from the e-codices Virtual Manuscript Library of Switzerland, <http://www.e-codices.unifr.ch/en>, with permission from Stiftsbibliothek, St. Gallen <http://www.stibi.ch/> and Stiftsbibliothek, Einsiedeln <http://kloster-einsiedeln.ch/>, the picture fragments from there are only present in the font source file to help drawing the glyphs.

## Cantatorium codex 359

C1 = [http://www.e-codices.unifr.ch/en/download/csg-0359\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0359_001/max)  
C25U Universi GT16  
C26A Alleluia Ostende GT16  
C26D Dilexisti iustitiam GT499  
C27E Ex Sion GT18  
C27Q Qui sedes GT22  
C28A Alleluia. Excita Domine GT23  
C28T Tollite portas GT25  
C32B Benedictus es in firmamento GT664  
C35Q Qui regis Israel intende  
C37A Alleluia. Veni, Domine GT36  
C38T Tecum principium GT42  
C38A Alleluia Dominus dixit GT43  
C39B Benedictus qui GT45  
C40A Alleluia Dies sanctificatus GT49  
C40V Viderunt omnes GT48  
C42A Alleluia. Hic est discipulus GT636  
C43A Anima nostra GT453  
C43L Laus tibi Christe  
C44E Ecce sacerdos GT486  
C44D Diffusa est gratia GT408  
C45S Speciosus forma GT54  
C460 Omnes de Saba GT57  
C46B Benedictus Dominus GT257  
C46A Alleluia Vidimus stellam GT58  
C47I Iuravit Dominus GT486  
C49I Inveni David GT445  
C50G Gloriosus Deus GT456  
C52T Timebunt gentes GT265  
C52P Posuisti Domine GT477  
C53S Suscepimus Deus GT360  
C53A Alleluia. Adorabo ad templum GT270  
C54A Audi filia GT417  
C56B Beatus vir GT475  
C56D Desiderium animae GT432  
C57B Beatus vir GT481  
C58A Adiutor GT69  
C59D De profundis GT673  
C60S Sciant gentes GT88  
C60C Commovisti Domine GT89  
C61T Tu es Deus GT275  
C61I Iubilare Domino GT185  
C62M Miserere mei GT63  
C64Q Qui habitat GT73  
C67D Dirigatur GT340  
C71L Laudate Dominum GT187  
C73P Propitius esto GT288  
C74B Bonum est GT327  
C780 Oculi omnium GT343  
C79L Laetatus sum GT336  
C80Q Qui confidunt GT109  
C81E Exsurge Domine GT114  
C82B Beata gens GT333  
C82R Respice Domine GT320  
C82V Venite filii GT298  
C84T Tibi Domine GT118  
C87E Exaltabo te GT112  
C88T Tollite hostias GT272  
C89T Tenuisti manum GT133  
C95D Domine exaudi GT172  
C97D Domine audivi  
C100C Crux fidelis GT182  
C103C Cantemus Domino GT186  
C104V Vinea facta GT188  
C107A Alleluia Pascha nostrum GT197  
C118C Clamaverunt iusti GT454  
C122I In omnem terram GT427  
C123C Constitues eos GT426

C132D Domine praevenerunt GT509  
C134B Benedicite Dominum GT608  
C137A Audi filia GT406  
C139A Alleluia Benedictus es GT375  
C139B Benedictus es GT372  
C145L Liberasti nos GT366  
C148A Alleluia Domine refugium GT321  
C148Q Alleluia Quoniam Deus GT327  
C148V Alleluia Venite GT324  
C149A Alleluia. Paratum cor meum GT344  
C150L Alleluia Laetatus GT19  
C153S Alleluia Sancti tui, Domine, benedicent GT463  
C153B Alleluia Beatus vir qui suffert GT511  
C154A Alleluia Gaudete iusti GT430

## Einsiedeln codex 121

E1 = [http://www.e-codices.unifr.ch/en/download/sbe-0121\\_001/max](http://www.e-codices.unifr.ch/en/download/sbe-0121_001/max)  
E2R Respice in me OT5  
E2D Dominus dabit GT17  
E3D Deus tu convertens GT20  
E10P Prope est Dominus GT35  
E11C Confortamini OT9  
E13P Prope es tu GT24  
E16B Benedictus es  
E20E Exsulta satis GT28  
E23T Tollite portas OT14  
E26L Lux fulgebit GT44  
E29E Exsulta filia sion GT47  
E31T Tui sunt caeli OT18  
E33V Viderunt omnes GT50  
E34I In virtute tua OT152  
E35E Elegerunt apostoli OT161  
E39E Exiit sermo inter GT636  
E42A Anima nostra GT466  
E51R Reges tharsis OT21  
E64L Laetamini in Domino OT140  
E69P Posuisti Domine GT477  
E75G Gaudeamus omnes GT545  
E82D De profundis GT673  
E92I Immutemur GT65  
E104S Sicut oculi GT77  
E125P Precatus est Moyses GT317  
E130I Illumina oculos GT290  
E131O Oculi mei semper GT96  
E133I Iustitiae Domini GT309  
E147L Laetare Ierusalem GT108  
E148L Laudate Dominum GT110  
E155B Benedicite gentes Domino GT231  
E158D Domine ad adiuvandum OT42  
E161S Sitientes venite GT114  
E162F Factus est Dominus GT119  
E166C Confitebor tibi Domine OT44  
E173E Eripe me GT129  
E193D Domine, exaudi orationem OT53  
E195D Dominus Iesus GT165  
E205R Resurrexi GT196  
E213C Alleluia Christus resurgens GT226  
E248V Viri Galilaei GT235  
E255S Spiritus Domini GT252  
E256C Confirma hoc OT79  
E262S Sapientiam sanctorum GT452  
E272M Mihi autem nimis OT128  
E293V Vindica Domine  
E320I Inclina aurem GT300  
E327O Oravi Deum meum OT107  
E324R Respice, Domine GT320  
E336I In voluntate tua GT346  
E339S Si iniquitates GT350  
E373B Benedictus es GT372  
**Hartker codex 390/391**

H1 = [http://www.e-codices.unifr.ch/en/download/csg-0390\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0390_001/max)  
H195 = [http://www.e-codices.unifr.ch/en/download/csg-0391\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0391_001/max)  
H16A Aspiciebam in visu NR111  
H16M Missus est Gabriel NR111  
H16V Ave Maria NR113  
H22S Sicut mater consolator NR127  
H23E Egredietur Dominus de Samaria NR129  
H25E Ecce mitto Angelum AM201  
H26G Grata facta est NR25\*  
H28Q Qui venturus est NR134  
H29E Ecce radix Jesse NR137  
H32N Nascetur nobis NR149  
H33I Iuravi dicit Dominus NR151  
H34F Festina ne tardaveris NR130  
H35G Germinaverunt campi NR144  
H36A Adnuntiatum est  
H48B Beata et venerabilis  
H50Q Quem vidistis pastores AM240  
H72V Venit lumen tuum AM290  
H72H Hodie in Iordane NR229  
H730 Omnes de Saba NR237  
H73S Stella ista NR242  
H74I Illuminare, illuminare NR236  
H75I In columbae specie NR231  
H75V Videntes stellam NR242  
H77S Stella ista AM291  
H77A Ab Oriente AM297  
H87E Exaudi Deus  
H103S Spes nostra salus NR512  
H103M Magnus Dominus NR516  
H104T Te Deum patrem  
H112S Stans a dextris AM798  
H114C Corde et animo AM1033  
H114N Nativitas tua AM1035  
H118G Gaude, Maria Virgo NR130\*  
H119C Cum inducerent  
H173I Insurrexerunt in me NR364  
H173C Contumelias et terrores NR365  
H179L Liberavit Dominus ARII183  
H179A Amicus meus osculi NR381  
H179I Iudas mercator NR382  
H179U Unus ex discipulis NR383  
H180U Una hora non potuistis NR388  
H219T Tradiderunt me NR408  
H219I Iesum tradidit impius NR409  
H225M Mulieres sedentes AM449  
H266D Domino si in tempore  
H269S Spiritus Sanctus  
H269D Dum complerentur NR493  
H269R Repleti sunt omnes NR494  
H270S Spiritus Domini AM520  
H271L Loquebantur variis AM521  
H297B Beatam me dicent NR [172]  
H305H Hodie nata est NR278\*  
H305G Gloriosae virginis Mariae NR279\*  
H306N Nativitas gloriosae NR280\*  
H307N Nativitas tua NR281\*  
H307F Felix namque NR [171]  
H320R Regem confessorum  
H322B Beatus Gallus zelo  
H322C Columbanus itaque beato  
H323B Beatus Gallus cum  
H323D Domine Iesu Christe  
H324P Pater sanctus  
H324V Vir Deo plenus  
H325I Iste sanctus digne  
H367V Viri sancti NR [54]  
H390C Credo quod Redemptor NR [186]  
H392L Libera me Domine de viis NR [200]  
H392I Libera me Domine de morte NR [201]

H424M Magnificat  
H428A Ascendens Iesus AM593  
H443V Venite exsultemus NRXXVIII  
**St. Gall codex 339**  
G1 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_033/max](http://www.e-codices.unifr.ch/en/download/csg-0339_033/max)  
G56 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_088/max](http://www.e-codices.unifr.ch/en/download/csg-0339_088/max)  
G57 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_088a/max](http://www.e-codices.unifr.ch/en/download/csg-0339_088a/max)  
G58 = [http://www.e-codices.unifr.ch/en/download/csg-0339\\_089/max](http://www.e-codices.unifr.ch/en/download/csg-0339_089/max)  
G8E Exulta satis OT11  
G9A Alleluia Veni Domine GT36  
G11P Puer natus est GT47  
G11V Viderunt omnes GT48  
G12T Tui sunt caeli OT18  
G20I Iubilare Deo universa terra GT227  
G22D Domine quinque talenta GT515  
G25P Posuisti Domine GT477  
G30E Exsurge quare obdormis GT91  
G35D Domine vivifica me OT31  
G42D Domine Deus salutis OT112  
G44P Precatus est Moyses GT317  
G45D Domine in auxilium OT106  
G51I Intende voci GT280  
G51S Si ambulabem GT125  
G57F Factus est Dominus GT119  
G89D Domine Deus in simplicitate OT159  
G113A Alleluia. Dilexit Andrean GT625  
G116C Cantabo Domino GT283  
G126D Alleluia. Domine Deus meus GT282  
G128A Alleluia. Attendite popule  
G132A Alleluia. Mirabilis Dominus GT462  
G132V Alleluia. Vox exultationis  
G139A Asperges me Domine  
G140O Oremus dilectissimi nobis  
G141O Omnipotens Deus  
**St. Gall codex 376**  
N1 = [http://www.e-codices.unifr.ch/en/download/csg-0376\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0376_001/max)  
N39H Hodie cantandus est nobis  
N53A Audite fratres dilecti  
N59N Nativitatem venerandam  
N65G Gloriatius laus tua Deus  
N67G Gloria in excelsis Deo  
N68G Gloria in excelsis Deo  
N69G Gloria in excelsis Deo  
N73G Kyrie eleison  
N86D Dilexisti iustitiam GT498  
N100T Tui sunt caeli OT18  
N171D Deus exaudi orationem GT107  
N221N Alleluia. Non vos relinquam GT242  
N270A Alleluia. Benedictus es GT375  
N293A Alleluia. Sancti tui, Domine, benedicent GT463  
N296V Alleluia. Veni Sancte Spiritus GT263  
N363C Carmen suo dilecto  
N368L Letamente canamus Domino nostro  
N372O O quam mira sunt Deus  
**St. Gall codex 374**  
A1 = [http://www.e-codices.unifr.ch/en/download/csg-0374\\_001/max](http://www.e-codices.unifr.ch/en/download/csg-0374_001/max)  
A17T Tui sunt caeli OT18  
A22V Vox in Rama GT638  
A26F Fili quid fecisti GT51  
A56C Custodi me Domine GT304  
A127E Exultabunt sancti OT143  
A167O Oravi Deum meum OT107  
A174A Alleluia. Eripe me GT308  
**Bamberg, lit. 6, Gradual of St. Emmeram**  
B9v = <http://bsbsbb.bsb.lrz-muenchen.de/~db/0000/sbb00000128/images/index.html?id=00000128no=19&seite=22&signatur=Msc.Lit.6>  
B9vA Anima nostra GT466

	<b>virga</b>			
/	vi	C780	tu	
/	vilsc3	C82R	testamentum	
/	vilst1	E29E	rex	2.166x
/	vi-	C80Q	montes	
/	vi>	C27E	eius	
/	vi-1st3	H50Q	Quem	
/	vi->	E20E	sanctus	2.166x
	<b>tractulus</b>			
-	ta	C26A	Domine	
-	talsc3	E262S	saeculum	2.166x
-	talst2	C56D	Desiderium	
-	ta-	C81E	antiquis.	
-	ta>	C25U	et	
-	suv1 Cf. 5	pesu2suv1		
	<b>punctum</b>			
.	pu	C137A	Audi	
Cf. 5	st			
Cf. 5	ci>			
	<b>gravis</b>			
/	gr	H271L	Loquebantur	
/	gr-	H270S	Spiritus	
/	gr-lsc6	H270S	replevit	
	<b>clivis</b>			
/	cl	C780	sperant	
/	cllsc3	C26A	nobis	
/	cll1st2	C25U	exspectant	
/	cl-1st2	C52P	pretioso.	
/	cl-	C780	omnium	
/	clS-	C81E	opem	
/	clS	C780	opportuno.	
/	clS1	H424M	potentiam	
/	clM	C148V	nostro	
/	cl>			
/	cl>1	H36A	virginis	
/	vi>			
/	cl->1	H50Q	natum	
/	cl->	H50Q	angelorum	
/	clM-	C27Q	super	
/	clS-1	H428A	navem	
	<b>pes</b>			
/	pe	C80Q	Domine	
/	pe-	C80Q	aeternum	
/	pe-1	C64Q	Scapulis	
/	peS	C780	in	
/	peG	B9vA	erepta	0.5x
/	peG			
/	pe>	C100C	germine	
/	pe>1	C27E	eius	
/	pe>2	C71L	miser cordia	
/	pe->	N296V	tuorum	
/	ta>			
/	pe->1	H35G	Germinaverunt	1.7x
	<b>porrectus</b>			
/	po	C139B	super	
/	polsc2	C82R	iudica	0.85x
/	po-	G20I	anime	
/	po-1	C26A	tuum	
/	poG	C40V	salutare	
/	po>	C80Q	commovebitur	
/	po~	C58A	aeternum	
/	poG-	A1670	meum	
/	posu2	C460	gloria	
/	po-1su2	H269R	alleluia	
/	posu1sut1	C80Q	saeculum.	
	<b>torculus</b>			
/	to	C780	Domine	
/	tolsc3	C39B	nomine	
/	tolsc41st3	E125P	Domine,	2.166x
/	tolst2	C74B	miser cordiam	
/	to-	G44P	animae	
/	to-1	C139A	nostrorum	
/	toS	C38A	hodie	

/	toS1	E205R	Resurrexi,	0.5x
/	toS2	E161S	Sitientes	1.75x
/	toS3	C104V	circumfodit	
/	toG	G12T	eius	
/	toM	C49I	servum	
/	toM1	H22S	auxilium	1.71x
/	toM3	C39B	mirabile	
/	to>	C26A	miser cordiam	
/	pe>			
/	toS31st2	C59D	tuae	
/	pq!cl-	C87E	sanasti	
/	to>1	E130I	obdormiam	2.166x
/	to>2	H219T	fortes:	1.63x
/	to->	E158D	respexit	2.166x
/	toS2sux1	C460	Surge	
	<b>climacus</b>			
/	ci	C26A	tuum	
/	ci1	G73P	gentes	
/	cilsc3	C74B	tuo	
/	ci-	C81E	nos	
/	ciS	C81E	Domine	
/	ciS1	C139A	Deus	
/	visut1su2	C53A	Adorabo	
/	ciG	C64Q	lapidem	
/	ciG1	C42A	ille	
/	ciM	C154A	Alleluia	
/	ci>	C460	orta	
/	cl>	C79L	domum	
/	visuv1su2	C35Q	nos	
/	visut3	C38T	meo	
/	visu1suu1	C26D	laetitia.	
/	visut4	C25U	me.	
/	cl-1su2	C40A	magna	
/	visu1sut2	C43L	Domine	
/	visu1suv1	C53S	terrae.	
/	visuu1su2	C56D	eius	
/	visuu2su2	H103S	salus	
/	vi-suu2su2	H103S	o	
/	visu2suw1	G113A	Alleluia	0.85x
/	visut2su2	G128A	Alleluia	0.85x
/	visut3suw1	C153S	dicent.	
/	visu1sut1sux1	G126D	salvum	0.85x
/	visu1sut1su2	N39H	puer	
/	visu1sut1su1sut1	N39H	generavit	
/	vi-su1sut1su2	N39H	enim	
/	visut1sux1	N59N	filium	
/	clSsu1sut1	N65G	tui	
/	vi-su4	N68G	Amen.	
/	vi-su1sut2su1	N73K	Christe	
/	visu1sut1suy1	N221N	Alleluia.	
/	visut3suy1	N293A	dicent.	
/	visut2suy1	N363C	sacro	1.25x
/	visu5	N368L	fornacibus	1.25x
/	visu1suu1su2	N3720	erogatione	1.25x
/	vi-su1suu2	A174A	meus	
/	vi-su1suu1su1	A174A	Alleluia.	
/	vi-sut2	H74I	illuminare	
/	clS-su2	C46A	eius	
/	vi-su1su2	H75I	sanctus	
/	clSsut2	E51R	suscipiant	2.0x
/	clSsuu1su2	H390C	surrecturus	1.5x
/	vi-sut3	H269D	dicentes	
/	vi-su1sut1 Cf. 5	vi-su1sut1su2 minus subpunctis		
/	vi-su2sut1	N296V	alleluia	
/	vi-su1sux1	E373B	Sanctum	2.133x
/	vi-su2sux1	C49I	eum	
/	vi-sut4	H16A	servient	1.7x
/	vi-suu2	H23E	ecce	1.7x
/	vi-suu3	H35G	veniet	1.7x
/	visu2sux1	H48B	mater	1.7x
/	vi-sut1su2	H22S	elegi	1.71x
/	vi-su1suu1	H114C	gloriam	1.71x
/	vi-su1suu1su2	H114N	nobis	1.71x



vi-su1sut2	H324P	aetatis	2.0x
vi-su3	H307F	natalem	2.0x
vi-sut1suu1	325I	peregrinatione	2.0x
<b>scandicus</b>			
sc	G11P	imperium	0.85x
sc1 Cf.	vipp4	minus first punctum	
sc-	C123C	terram	
scS	C154A	Alleluia	
scG	H179I	Iudas	
scG1	C52P	Posuisti	
scM1	C67D	Domine	
sc>	C26A	Alleluia	
Cf. pe>2			
vi-pp2	C26A	Domine	
vi-ppt3	C27E	veniet.	
scM2	C44E	Ecce	
vi>ppt3	E2R	non	2.166x
cl>ppt2	H730	annuntiantes	
vi-!vi!vi	E155B	Benedicite	2.166x
vippt3	G1400	ae	0.85x
vi-pp4	C154A	rectos	
vi-!vi-!vi	H118G	erubescat	
vipp4	A127E	eum	
vi>ppt2	H75V	apertis	
scG-1	H225M	Mulieres	1.6x
<b>porrectus flexus</b>			
pf	C27E	sacrificia	
pflsc2	C58D	intendentes	
pf1lsc2	C61I	Ipse	
pf1st2	C122I	fines	
pf-	C81E	antiquis.	
pfS	G116C	tribuit	0.85x
sfM	E248V	alleluia,	2.166x
pfM	E39E	manere	2.166x
pf>	C95D	manducare	
Cf. po>			
pfMsut1	E34I	eum	2.166x
<b>pes subbipunctis</b>			
pesu2	C81E	antiquis.	
vippt1su2lsc3	C61T	solus:	
pe-su2	H73S	adoraverunt	
pe-1su2	C64Q	habitat	
pe-1sut2	H104T	confitemur	
pe-1sut1suw1	H219I	videret	1.63x
peSsu2	A17T	eius	
peSsut2	C27E	sanctos	
vippt1su2	C56B	benedicetur.	
toS2sut1	C139A	Alleluia	
vi-!ci	E272M	cognovisti	2.166x
pesu1suw1	G8E	plebem	
pe-su1sut1	N296V	alleluia	
pe-su2suy1	N296V	alleluia	
pe-1sut3	H179A	malum	
Cf. to>			
pesu1suu1	C27E	Deus	
pesu3	C27Q	regis	
vippt1su1sut1	C40V	omnes	
vippu1su2	C74B	Altissime.	
pesu1sut3	C60S	venti.	
pesu2suv1	C60C	Sana	
pesu2sut1	E213C	Alleluia.	2.0x
pesu1sut2	E213C	Alleluia.	2.0x
vippu1su2lsc3	C32B	caeli	
pe-1su1suu1	C61I	pascuae	
peSsu1sux1	G89D	fili	0.85x
pe-su3sut1	N270A	saecula.	
pe-1sut1sux1	H72V	orta	
peSsut3	C460	Jerusalem	
pesut2	H77S	magi	
pe-1suw2	E255S	Domini	2.133x
peSsut1su2	E13P	Domine	2.133x
pesu1sux1	H25E	angelum	1.7x
pe-1su1suw1	H29E	deprecabuntur	1.7x

pesu1sut1 Cf.	pesu1sut3	minus 2 tractulis	
pe-1su1sut1	H306N	de	2.0x
pe-1su1sut2	H305G	Mariae	2.0x
pe-1su1suu2	H305G	vidente	2.0x
pe-1suu1su2	H180U	exhortabamini	1.75x
pe-su4	C139A	Alleluia	
pesuv1su1sut1	C139A	Alleluia	
<b>scandicus flexus</b>			
sf	C64Q	habitat	
sflsc3	C27E	Deus	
sf-	C39B	est	
sfS	C97D	Deus	
toppu1	C103C	Cantemus	
Cf. sfM			
sc>			
to>pp2	E324R	testamentum	2.0x
<b>torculus resupinus</b>			
tr	C25U	edoce	
tr1st2	E69P	eius	2.0x
tr-1	C38T	meo	
trS	C58A	Domine	
trG	E336I	fecisti	2.166x
trG1	G25P	ei	
trG2	E147L	Laetare	2.166x
trM	E336I	resistere	2.166x
tr>	C82V	nonconfundentur	
tr~	C60S	Altissimus	
tr--	C27Q	et	
tr--1	C107A	Alleluia.	
trS-	C89T	pedes,	
trS1	E26L	eeieieue	2.166x
tr-3	H323D	honore	2.0x
trsu3	C95D	eius.	
<b>strophia</b>			
st	C80Q	commovebitur	
st-	C52P	Desiderium	
stS	E263V	est.	2.166x
st>	C49I	servum	
<b>distropha</b>			
ds	C460	super	
ds1sx6	C45S	forma	
ds-	C81E	Domine	
ds>	C38A	Alleluia	
<b>tristropha</b>			
ts	C80Q	Dominus	
ts1sx6	C44D	mansuetudinem	
ts-	C150L	ibimus	
tsM	C62M	anima	
ts>	C62M	conculcantes	
tsM-	A26F	ego	
<b>trigonus</b>			
tg	C80Q	aeternum	
tg1	C81E	antiquis.	
tgS	C139B	omnibus	
tgS1	N171D	mei	
tgS3	C61I	laetitia.	
tgM	C118C	Dominus	
tgS-	C118C	Dominus	
tgS4	C86D	mei	
<b>bivirga</b>			
bv	C26D	Propterea	
bv-	C82B	populus	
bv>	H33I	montes	
<b>trivirga</b>			
tv	C56D	pretioso	
tv-	C61I	eius.	
<b>pressus</b>			
pr	C26A	Alleluia	
pi	C82R	Domine,	
prlsc2	E339S	Si	2.166x
pr-lsc3	C122I	Dei	
pr1st2	C145L	tuo	
pilsc2	C122I	Dei	

pilst2	C26A	Alleluia	
pr-	C59D	Si	
prM	E173E	insurgentibus	2.166x
pr>	H72H	in	
pi>	H103M	Magnus	
vs>			
or>			
<b>virga strata</b>			
vs	C148A	generatio	
vs1sc3	C39B	nomine	
vs1st2	E195D	suis,	2.166x
vs-	C82B	Domini	
vs>	C64Q	pennis	
ta>			
vs->	A22V	Rama	
<b>oriscus</b>			
or	H112S	candidior	
or>	C148V	salutari	
<b>salicus</b>			
sa	C27E	super	
sa1	C148A	Alleluia.	
salsfr1	E3D	Deus	2.166x
sa-	C25U	tuas	
sa-1	G30E	tribulationis	
saG	C107A	Alleluia.	
saM	H16V	venient	1.7x
saM1	H23E	homo	1.71x
saM2	C27Q	regis	
saM4	E10P	omnis	2.166x
saM5 Cf.	saM5ppt1	minus tractulus	
sa>	C27E	sanctos	
sa->1	H77A	magi	
pe>2			
sa!clS1	C80Q	sicut	
sa!clS-1	C27Q	tuam	
sa!clS1sc2	C46B	Deus	
sa-lsfr1	C134B	nomen	
sa!cl>	G45D	respexit	0.85x
sa!cl>	G22D	euge	0.85x
sa!cl	G1410	fortitudo	0.85x
saM-1	G139A	Domine	0.85x
sa!cl-	G132V	Alleluia.	0.85x
saM3	N53A	fratres	
saM-4	N296V	amoris	
sa>2	H73S	viderunt	
sa!cl->	H32N	eius	1.7x
sapp1	H320R	venite	2.0x
saM5ppt1	H392I	de	1.5x
<b>pes quassus</b>			
pq	C27E	sacrificia.	
pqlsfr1	C150L	nostris	
pq-	C148V	nostro	
pq>	C84T	pupillo	
pqS	C52T	maiestate	
pqS>	H424M	potentiam	
pq!cl>	G57F	firmamentum	0.85x
pq!cl	E23T	Domini	2.166x
<b>quilisma</b>			
ql	C80Q	commovebitur	
qi	C103C	Hic	
ql-	C148A	generatio	
qi-	H28Q	veniet.	
ql>	C40V	gentium	
qi>	C28A	et	
<b>pes stratus</b>			
pt	G1400	ae	0.85x
<b>subpunctis</b>			
su2 Cf.	ci		
su3 Cf.	ci1		
su1sut1 Cf.	ciS		
sut2 Cf.	ciS1		
suu1su2 Cf.	visuu1su2		

su1suw1 Cf.	ciM
su1sux1 Cf.	ci>
su1sut2 Cf.	visu1sut2
su1suu1 Cf.	visu1suu1
su2suw1 Cf.	visu2suw1
su2sux1 Cf.	vi-su2sux1
sut1su2 Cf.	visut1su2
sut1suw1 Cf.	pe-1sut1suw1
sut3 Cf.	visut3
suv1su2 Cf.	visuv1su2
sut4 Cf.	visut4
su1suv1 Cf.	visu1suv1
suu2su2 Cf.	vi-su2su2
suu1su1sut2 Cf.	qi-ppt1suu1su1sut2
sut2su2 Cf.	visut2su2
su1sut3 Cf.	pesu1sut3
su2suv1 Cf.	pesu2suv1
sut3suw1 Cf.	visut3suw1
su1sut1sux1 Cf.	visu1sut1sux1
su1sut1su2 Cf.	visu1sut1su2
su1sut1su1sut1 Cf.	visu1sut1su1sut1
sut1sux1 Cf.	visut1sux1
su4 Cf.	vi-su4
su1sut2su1 Cf.	vi-su1sut2su1
su1sut1suy1 Cf.	visu1sut1suy1
sut3suy1 Cf.	visut3suy1
sut2suy1 Cf.	visut2suy1
su5 Cf.	visu5
su1suu1su2 Cf.	visu1suu1su2
su1suu2 Cf.	vi-su1suu2
su1suu1su1 Cf.	vi-su1suu1su1
su3sut1 Cf.	pe-su3sut1
suu2 Cf.	ql-ppt1suu2
su2sut1 Cf.	vi-su2sut1
su2suy1 Cf.	pe-su2suy1
suw2 Cf.	pe-1suw2
sut2suu1 Cf.	ql-ppt1sut2suu1
suu3 Cf.	vi-suu3
su1 Cf.	ci
sut1 Cf.	ciS1
su1suv1su2 Cf.	ql-ppt2su1suv1su2
sut1suu1 Cf.	vi-sut1suu1
suv1su1sut1 Cf.	pesuv1su1sut1
<b>prepunctis</b>	
pp2 Cf.	vi-pp2
ppu2 Cf.	scS
ppt2 Cf.	sfS
ppu3	C47I Sede
ppu4	C58A Domine
ppu5	C50G confregit
pp4	C780 escam
pp3 Cf.	pp4
ppt3 Cf.	vi>ppt3
ppt4	N69G amin.
ppt5	A56C videant
pp1 Cf.	vi-pp2
<b>combined glyphs</b>	
cl!pi	C82R Domine
cl!pilsc11st3	C89T manum
cl!pilsc2	C149A cantabo
cl!pr	G51S ipsa 0.85x
cl-!pi	E35E illis 2.166x
ql!cl	C148A Domine
ql!cl!cl> Cf.	ql!cl!cl>ppt1 minus tractulus
ql!cl!pi Cf.	ql!cl!pippt1 minus tractulus
ql!pf-	G42D mane 0.85x
ql!pf	G35D Domine
ql!cl-	C26A Alleluia
ql!clM Cf.	ql!clMppt1 minus tractulus
ql!cl-> Cf.	ql!cl->ppt1 minus tractulus
ql!cl>	H26L salva 0.5x

ql!po	C148V	nostro	
ql!po-1	C148A	Alleluia.	
ql!po>	H33I	terram	
ql!vs	C148A	refugium	
ql!vssu2 Cf.	ql!vsppt1su2	minus tractulus	
ql!vssut2 Cf.	ql!vsppt1sut2	minus tractulus	
qi!vs Cf.	qi!vssu2	minus subbipunctis	
qi!vssu2 Cf.	qi!vsppt1su2	minus tractulus	
qi!vssu1sut2 Cf.	qi!vsppt1su1sut2	minus tractulus	
ql-su1suu1 Cf.	ql-ppt1su1suu1	minus tractulus	
ql-su1suv1su2 Cf.	ql-ppt2su1suv1su2	minus tractulis	
qisu2	E166C	sermones	2.0x
qisut2 Cf.	qippt2sut2	minus tractulis	
ql-su3 Cf.	ql-ppt1su3	minus tractulus	
qlsut3 Cf.	qlppt1sut3	minus tractulus	
qlsu2 Cf.	qlppt1su2	minus tractulus	
ql-su2 Cf.	ql-ppt1su2	minus tractulus	
ql-sut2	H73S	cedebat	
ql-su1sux1 Cf.	ql-ppt1su1sux1	minus tractulus	
ql-su1sut2 Cf.	ql-ppt1su1sut2	minus tractulus	
ql-sut1sux1	H72H	complacui	
ql-suu2 Cf.	ql-ppt1suu2	minus tractulus	
ql-sut2suu1 Cf.	ql-ppt1sut2suu1	minus tractulus	
qi-su2	H73S	cedebat	
qi-su1sut2 Cf.	qi-ppt1su1sut2	minus tractulus	
qi-su1su1sut2 Cf.	qi-ppt1suu1su1sut2	minus tractulus	
qi-su1sux1	H26G	certamine	1.7x
ql-su1suu2	H34F	facinora	1.71x
qi!cl	C82B	spiritu	
qi!cl-	C148A	factus	
qi!cl>	H77S	Magi	
qi!po	H87E	Deus	
qi!po>	H173C	adversum	1.9x
pf!clM-ppt1	E3270	narante	2.166x
cl!po>ppt1	E3270	narante	2.166x
qlppt1	C38T	Sede	
qippt1	C37A	Domine	
qi!clppt1	C88T	hostias,	
ql-ppt1	C26D	laetitiae.	
ql>ppt1	C38T	virtutis	
qi>ppt1	C60S	terram.	
qisut1sux1	H269S	linguarum	
qlsut2	H269D	alleluia	
qi-sut2	H269D	alleluia	
qi-ppt1su1sut2	H269R	magnalia	
qi-ppt1suu1su1sut2	H392L	visitasti	1.5x
ql!cl>ppt1	H730	aurum	
ql!clppt1	C39B	Domini:	
ql!cl!cl>ppt1	E133I	corda	2.166x
ql!cl!pippt1	E31T	maris	2.166x
ql!cl-ppt1	C40A	terram.	
ql!clMppt1	E324R	tuum	2.166x
ql!cl->ppt1	H132A	Alleluia.	0.85x
ql!clS-2ppt1sut1	E3D	et.	2.0x
ql!clS-2sut1 Cf.	ql!clS-2ppt1sut1	minus tractulus	
ql!clS-2ppt1 Cf.	ql!clS-2ppt1sut1	minus tractulus	
ql!clS-2 Cf.	ql!clS-2ppt1sut1	minus 2 tractulis	
ql!poppt1	C59D	Domine.	
ql!po-1ppt1	C58A	homo.	
ql!po-ppt1	H179L	pauperem	
ql!po~ Cf.	ql!po~	minus tractulus	
ql-ppt1su2	H72V	Jerusalem	
ql-ppt1su1sux1	H730	Reges	
ql-ppt1su1sut2	H75I	patris	
ql-ppt1suu2	H72H	Hic	
ql-ppt1sut2suu1	H16M	altissimi	1.7x
ql!vsppt1su2	H730	Domino	
ql!vsppt1 Cf.	ql!vsppt1su2	minus subbipunctis	
ql!vsppt1sut2	H73S	gaudio	
qi!vsppt1su2	H74I	Domini	
qi!vsppt1su1sut2	H392L	viderent	1.5x
qi-sut3	H322B	in	2.0x
ql-ppt1su1suu1	H305H	David	2.0x

ql-ppt1su3	H323D	subire	2.0x
qlppt1sut3	H305G	Redemptorem	2.0x
qlppt1su2	E166C	secundum	2.0x
ql-ppt2su1suv1su2	H306N	illustrat	2.0x
ql-su1sut1	H307F	iustitiae	2.0x
qippt2sut2	H297B	generationes	2.0x
ql!vssu3	H443V	ei	2.0x
to!ciG	E51R	eum	2.0x
to!ciG	C28T	gloriae.	
to!cl	C84T	pupillo	
to!cl!cl!cl	C64Q	sepavit,	
to!cl!po	E31T	veritas	2.166x
to!cl!po-1	N100T	veritas	
to!cl!pi	C45S	mea	
to!cl-	N86D	propterea	
to!cl-!cl-	C54A	Adducentur	
to!cl-1	C45S	filiis	
to!clS	C43A	terram.	
to!cl!cl	C43A	Domini,	
to!po	C64Q	sagitta	
to!posu2	C49I	eo,	
to!pr	G11V	Deo	0.85x
to!pi	C60C	tui.	
toSsu2	H72H	mihi	
pf!cl-	G51I	meus	
pf!clM- Cf.	pf!clM-ppt1	minus tractulus	
pf!pr	G9A	Alleluia	
cl!po> Cf.	cl!po>ppt1	minus tractulus	
cl!cl>1	N67G	mundi	
cl!clSsut2	E256C	psallite	2.166x
cl!clS Cf.	cl!clSsut2	minus 2 tractulis	
cl!po	C26A	nobis.	
cl!po-1	H119C	in	
tr-1su2	H730	dona	
trSsut2	H305H	devotissime	2.0x
ci-pp2	H73S	magno	
toS2su2	H73S	eam	
toS2sut2	C150L	dicta	
to-1su2	H322C	ostendere	2.0x
to-1su1	H323B	Gallus	2.0x
to-1suu1	H173I	me	1.8x
to-1suu1su2	H324V	cognovi	2.0x
po-1pp2su1sux1	H323D	desiderium	2.0x
po-1su1sux1 Cf.	po-1pp2su1sux1	minus bipunctis	
pisu1	H307N	annuntiavit	2.0x
pisut1	C153B	Alleluia	
pq-su2	C132D	praetioso	
pe!vi	C57B	qui	
tgsuu1	C49I	eum.	
tgSsuu1	C57B	nimis.	
bv-sut2	H179U	fuisset.	1.75x
sa-su2sut1	C49I	eum	

**significantive letters**

lsam	C87E	abstraxisti	altius	
lsa1	E20E	Sion,	altius mediocriter	2.166x
lsb	C39B	Domino	bene	
lsc	C27E	eius	celeriter	
lscw	C148V	nostro.	celeriter (wide form)	
lscv	C134B	nomen	coniunguntur	
lscm	C58A	oblivio	celeriter mediocriter	
lsd	E11C	Virgo	deprimatur	1.85x
lse	C84T	adiutor	equaliter	
lseq	H266D	si	equaliter (wide form)	
lseq	C64Q	viis	equaliter	
lsfid	E16B	Domino	fideliter	2.166x
lsfr	C58A	non	frendor	
lsg	C27Q	ovem	guttur	
lsi	C87E	Domine	iusum	
lsim	E336I	universa	iusum mediocriter	2.166x
lsiv	E92I	misericors	iusum valde	2.166x
lsk	C62M	confidit	klenge	
ls1	C38T	Tecum	levare	
ls1b	C58A	non	levare bene	
ls1c	E151A	ab	levare celeriter	2.166x

<i>l̄en</i>	lslen	C59D	servitui.	leniter	
<i>l̄m</i>	lslm	C38T	Tecum	levare mediocriter	
<i>l̄p</i>	lslp	E161S	dicit	levare parvum	2.166x
<i>l̄t</i>	lslt	E148L	Laudate	levare tenete	2.0x
<i>m</i>	lsm	C38T	principium	mediocriter	
<i>moll̄</i>	lsmoll	E33V	finis	molliter	2.166x
<i>p̄</i>	lsp	C64Q	altissimi	parvum	
<i>p̄m̄</i>	lsp̄m̄	E104S	miserere	paratim	2.166x
<i>p̄f̄ec̄</i>	lspf̄ec̄	E2D	fructum	perfecte	2.166x
<i>p̄m̄</i>	lspm	C40V	suam.	parvum mediocriter	
<i>p̄ulcre</i>	lspulcre	E64L	hac	pulcre	2.0x
<i>s̄</i>	lss	C27E	sanctos	sursum	
<i>s̄b</i>	lssb	C40V	iustitiam	sursum bene	
<i>s̄c</i>	lssc	C84T	Tibi	sursum celeriter	
<i>s̄m̄il̄</i>	lssimil	E193D	ne	similiter	2.166x
<i>s̄m̄ul̄</i>	lssimul	E42A	sumus.	simul	2.166x
<i>s̄m̄</i>	lssm	C59D	Si	sursum mediocriter	
<i>s̄t̄</i>	lsst	C87E	Domine	sursum tenere	
<i>s̄b</i>	lssta	C27E	Congregate	statim	
<i>t̄</i>	lst	C39B	Domino	tenete	
<i>t̄</i>	lstw	C58A	non	tenete (wide form)	
<i>t̄b</i>	lstb	C39B	Domino	tenete bene	
<i>t̄m̄</i>	lstm	E3D	tu	tenete mediocriter	2.166x
<i>v̄</i>	lsv	E1310	semper	valde	2.0x
<i>v̄ol̄</i>	lsvol	C58A	aeternum	volubiliter	
<i>x̄</i>	lsx	C87E	me:	expectare	

# manuscript sources of the grelaon font

The list of glyphs uses following abbreviations for manuscript references; the page number is always for the start of some antiphon, responsory, mass propers, even when the actual neume is on a later page. At the end of lines, GT stands for Graduale Triplex, Solesmes, 1979, OT for Offertoriale Triplex, Solesmes, 1985, GN for Graduale Novum de Dominicis et Festis, Conbrio Verlag Regensburg, 2011, followed by page number which also contains the corresponding propers, antiphons or responsories.

All the grelaon font glyphs taken from the LAON\_BM\_ms239 codex with the permission from the Bibliothèque municipale de la ville de Laon <http://manuscrit.ville-laon.fr>, the picture fragments from there are only present in the font source file to help drawing the glyphs.

## Graduale Laudunensis, codex 239

L1 = [http://manuscrit.ville-laon.fr/\\_app/\\_visualisation.php?cote=Ms239&vvue=9](http://manuscrit.ville-laon.fr/_app/_visualisation.php?cote=Ms239&vvue=9)

L8U Universi qui te GT16  
L8A Ad te Domine levavi OT5  
L8D Dominus dabit GT17  
L9E Ex Sion species GT18  
L10I Ierusalem surge GT20  
L11Q Qui sedes, Domine GT22  
L13A Ave Maria GT36  
L14P Prope es tu Domine GT24  
L14O Ostende nobis GT31  
L17H Hodie sciētis GT38  
L18L Laetentur caeli GT44  
L19B Benedictus qui venit GT45  
L20P Puer natus est GT47  
L24D Dexterā Domini GT194  
L24T Timebunt gentes GT265  
L25L Laetabitur iustus GT473  
L25M Mirabantur omnes GN232  
L28G Gaudeamus omnes GT545  
L31D De profundis GT673  
L33S Sciant gentes GT88  
L33C Commovisti Domine GT89  
L33P Perfice gressus OT90  
L34E Esto mihi in Deum GT275  
L35T Tu es Deus GT244  
L37M Misereris omnium GT62  
L37S Miserere mei Deus GT63  
L38I lacta cogitatum GT285  
L40Q Qui habitat GT73  
L43L Levabo oculos meos GT78  
L43S Scapulis suis GT77  
L43I Sicut oculi servorum GT77  
L44D Domine refugium GT79  
L44I Dirigatur oratio GT340  
L45R Reminiscere miserationum GT81  
L53C Confitemini Domino GT158  
L54A Adiutor meus GT86  
L54B Benedicam Dominum OT88  
L56D Deus in adiutorium GT315  
L56S Salvum fac populum GT354  
L56I Iustus Dominus GT93  
L56P Propitius esto Domine GT288  
L58A Ad Dominum dum tribularer GT282  
L60E Exsurge Domine GT96  
L60A Ad te levavi GT97  
L61I Iustitiae Domini GT309  
L64O Oculi omnium GT343  
L64D Domine fac mecum OT37  
L67Q Qui biberit aquam GT99  
L67S Si ambulem GT125  
L68N Nemo te condemnavit GT124  
L68Q Qui confidunt GT109  
L71D Dum sanctificatus fuero GT249  
L72B Benedicite gentes GT231  
L75V Videns Dominus GT124  
L76E Eripe me Domine GT121  
L77S Saepe expugnaverunt GT122  
L77C Confitebor tibi Domine GT123

L78H Hoc corpus GT170  
L80S Sperent in te omnes GT286  
L81E Exaltabo te Domine GT112  
L81R Eripe me de inimicis GT129  
L82O Omnia quae fecisti GT342  
L82T Tollite hostias GT272  
L84B Benedictus es, Domine OT48  
L90D Deus Deus meus GT144  
L92E Exsurge Domine GT150  
L93E Erubescant et vereantur GT152  
L93G Ego autem dum mihi GT152  
L94C Custodi me Domine GT154  
L95D Domine, exaudi orationem GT172  
L99P Popule meus quid GT176  
L101V Vineā facta est GT188  
L103R Resurrexi GT196  
L103H Haec dies GT196  
L103P Alleluia Pascha nostrum GT197  
L103T Terra tremuit GT199  
L104I Introduxit vos Dominus GT200  
L105A Angelus Dominus GT217  
L105N Angelus Dominus GT201  
L106S Surrexit Dominus GT207  
L107H Haec dies GT206  
L109P Populus acquisitionis GT210  
L112D Deus Deus meus GT224  
L112O Omnes qui in Christo GT61  
L113E Ego sum pastor GT224  
L114C Cantate Domino GT225  
L114V Vocem iucunditatis GT229  
L117R Repleti sumus GT441  
L118E Ego sum vitis vera GT228  
L122N Non vos relinquam GT232  
L122V Viri Galilaei OT172  
L123A Ascendit Deus GT237  
L123E Exaudi Domine vocem GT241  
L125U Ultimo festivitatis GT251  
L125S Spiritus Domini GT252  
L126F Factus est repente GT256  
L128S Spiritus ubi vult spirat GT218  
L132E Ecce quam bonum GT351  
L136A Amen dico vobis quod vos GT436  
L138S Semel iuravi GT492  
L144C Clamaverunt iusti GT454  
L149E Ego dixi Domine GT279  
L149C Cantabo Domino qui bona GT283  
L152S Sicut in holocausto GT299  
L152I Inclina aurem tuam GT300  
L164D De profundis GT368  
L168I Iubilare Deo GT258  
L168S Specie tua GT416  
L168L Laudate Deum GT262  
L169A Adorabo ad templum GT270  
L173D Deus iudes iustus GT286  
L174D Domine in virtute tua GT292  
L174I In te Domine speravi GT296  
L174O Omnes gentes plaudite manibus GT298  
L174T Te dece hymnus GT305

	<b>uncinus</b>		
un	L78H	testamenti	
un1	L78H	calix	
un2 Cf.	un21sm1	minus letter	
un21sm1	L820	fecisti	
un1sm1	L75V	qui	
un1st1	L103R	alleluia	
un1st2	L820	fac	
un1st8	L24D	opera	
un11st8	L1120	Christo	
un1sm21ss31st8	L43S	scuto	
	<b>punctum</b>		
pu	L820	iudicio	
pu1	L56D	revereantur	
pulsnt3	L75V	flentes	
	<b>virga</b>		
vi	L820	Domine	
viS Cf.	vipp2su2	minus punctis	
vi>	L78H	in	
vi>1 Cf.	vi>11sa21sc8	minus letters	
vi>2	L820	nobiscum	
vilst1	L78H	meam	
vilst2	L95D	meus	
vilst9	L105A	quaeritis,	
vilss1	L103P	Alleluia.	
vilss2	L95D	avertas	
vilsst1	L103P	Alleluia.	
vilst21sa8	L95D	eius.	
vi>1sa6	L78H	testamenti	
vi>1sc6	L56D	adiuvandum	
vi>11sa21sc8	L126F	loquentes	
	<b>tractulus</b>		
ta	L24T	tuam.	
ta>	L78H	dicit	
ta>1	L820	mandatis	
ta>2	L90D	sancto	
ta>lsn12	L45R	dominentur	
ta>21sc2	L90D	Libera	
	<b>pes</b>		
pe	L78H	commemorationem	
peG	L78H	vobis	
pe>	L95D	exaudi	
pe>1	L78H	sanguine	
peG1	L67S	tua,	
pelsa2	L820	peccavimus	
pelsc2	L67S	tuus,	
pels12	L43L	iustitiam	
pelsm2	L81E	meam,	
pelsn2	L149C	qui	
pelsn3	L125S	replevit	
pelsst1	L103P	immolatum	
pelsst11sm4	L44I	Elevatio	
pelst2	L103H	saeculum	
peG1sf1	L67S	non	
peG1sa6	L109P	vocavit	
pe>11sa6	L114V	alleluia	
	<b>porrectus</b>		
po	L78H	facite	
poG	L64D	mecum	
poM Cf.	poMsun1	minus uncinus	
po> Cf.	po>pp2	minus prepunctis	
po>1	L81E	descendentibus	
polsf21st3	L95D	meus	
polst2	L103H	saeculum	
	<b>clivis</b>		
cl Cf.	c11sn9	minus letter	
clG	L78H	hoc	
clG1	L105N	accedens	
clG1sa5	L820	obedivimus	
clG1sn12	L44I	Elevatio	
clM	L78H	quotiescumque	
cl>	L75V	monumentum	
cl>1	L34E	locum	

c11shn8	L640	imples	
c11sn8	L95D	velociter	
c11sn9	L67S	tua,	
c11sst8	L640	imples	
c11st9	L95D	tempus	
c11sst6	L43L	mirabilia	
c11sm2	L45R	nobis	
c11snt2	L92E	me	
cl>1sa5	L71D	effundam	
	<b>oriscus-clivis</b>		
oc	L78H	sanguine	
ocG	L56D	Deus	
ocG1	L11Q	veniet	
ocG1sa5	L103T	resurgetur	
oclst8	L95D	Domine	
	<b>forculus</b>		
to	L78H	pro	
toS	L56S	populum	
toS1	L68N	Nemo	
toG	L78H	tradetur	
to>	L67S	mortis	
to	L37M	et	
tolst4	L95D	tempus	
tolstn8	L44I	vespertinum.	
tolst9	L103P	Alleluia.	
tolsth8	L56I	Dominus,	
tolst21st9	L92E	me	
toG1sa11st8	L109P	alleluia.	
toG1sa5	L68N	condemnabo	
toS1sa5	L77S	enim	
to>1sa5	L118E	in	
to>21sa3	L67Q	salientis	
to>21sc11sa3	L104I	terram	
	<b>climacus</b>		
ci	L95D	eius.	
unsun2	L820	da	
unsun3	L103P	immolatus	
unsux1	L169A	sanctum	
unsun1su2	L109P	tenebris	
pusu1sun1	L78H	tradetur	
pusu1sun2	L95D	Sion	
pusu2sun1	L95D	eius.	
visu1sun1	L95D	faciem	
visu1sun2	L40Q	latere	
visu1sun21sa5	L174D	et	
visu1sun21sa6	L174D	et	
visu1sun1su1 Cf.	visu1sun1su11st6	minus letter	
visu1sun1su11st6	L105N	descendit	
visu1sun1su2 Cf.	visu1sun1su21ss11st6	minus letters	
visu1sun1su21ss11st6	L168I	Alleluia.	
visu2	L95D	misereberis	
visun1su1sun1	L60E	conspectu	
visun1su1sun11st6	L35T	virtutem	
cilsf1	L95D	Sion	
cilsn8	L58A	iniquis,	
pusu1sun11sf1	L95D	mei	
pusu1sun21sa5	L67S	timebo	
pusu1sun11st7	L60E	homo	
pusu3	L640	escam	
pusu4	L92E	persequuntur.	
unsun2su1	L640	escam	
unsun1su1 Cf.	unsun1su11st21sc6	minus letters	

unsun1su11st2lsc6	L11Q	deducis
unsun21sa5	L19B	mirabile
unsun31sa3	L24T	gentes
unsun31sa6	L24T	tuam.
unsun2su2	L169A	confitebor
un1sun2su2	L136A	aeternam
un1sun1su1sun11sa11lsc4	L60E	retrorsum
un1sun1su1sun11sa3lsc6	L60E	retrorsum
un1sun1su2 Cf.	un1sun1su21sa5	minus letter
un1sun1su21sa5	L107H	Domini
<b>scandicus</b>		
sc Cf.	sc1st2	minus letter
sc1	L820	quia
sc1st2	L78H	quotiescumque
sc1lsc4	L109P	vocavit
<b>porrectus flexus</b>		
pf	L78H	corpus
pf1	L95D	exaudi
pf2	L101V	Sorec,
pfS	L56D	festina
pfM Cf.	pfM1smd3	minus letter
pfM1smd3	L81E	meam,
pf>	L164D	ad
pf>1	L90D	miserunt
pf>2	L104I	alleluia,
pf	L95D	clamor
pf 1	L31D	ad
<b>pes subbipunctis</b>		
tosu1	L820	Domine
tosun1	L95D	fumus
tosun2	L105N	revolvit
vippn1su2	L820	misericordiae
topp1su1 Cf.	topp1su11sa6	minus letter
topp1su11sa6	L95D	ad
pesu2 Cf.	pesu21st3	minus letter
pesu21st3	L152I	eruas
pesun3 Cf.	pesun31ss11sa3	minus letters
pesun31ss11sa3	L67S	medio
pesu2sun1	L24T	terrae
tosun11sa5	L67S	tua,
tosu11sc5	L19B	venit
toSsun11sa5	L138S	luna
tosun1su1sun1	L33S	venti.
tosun1su21sn31st6	L112D	nomine
tosun21sa6	L123A	alleluia.
<b>scandicus flexus</b>		
sf	L78H	meo
sfG	L33C	eam.
<b>torculus resupinus</b>		
tr	L78H	sumitis
trS	L95D	Domine,
tr>	L64D	diligent
poppn1	L820	vero
po>ppn1	L820	secundum
po>ppn1ppz1	L18L	faciem
po>pp2	L28G	angeli,
trlst31shp7	L109P	alleluia.
tr1ss11ss3	L103P	Christus.
trS1sc1	L103P	nostrum
<b>distropha</b>		
ds Cf.	ds1st2	minus letter
ds1st2	L95D	meam
ds1st8	L71D	effundam
ds1 Cf.	ds1pp3	minus prepunctis

<b>tristropha</b>			
ts	L820	fac	
ts1	L76E	Eripe	
ts>	L56D	adiuvandum	
ts>1	L103R	alleluia	
ts1sa2	L13A	tecum	
ts1sc21st2	L58A	Domine,	
ts>1sc2	L103R	alleluia	
ts>1sc6	L103T	dum	
<b>trigonus</b>			
tg	L67S	tua,	
tg1sn8	L67S	mala	
tg1st9	L103R	alleluia	
<b>bivirga</b>			
bv	L820	Domine	
bv1sa2	L820	nobis	
<b>trivirga</b>			
tv	L103H	bonus	
tv1sm2	L44I	Elevatio	
<b>pressus</b>			
pr	L95D	veniat	
pi Cf.	c11!pi	minus clivis	
<b>virga strata</b>			
vs	L64D	Deus	
vsG	L64D	suavis	
<b>oriscus</b>			
or Cf.	ocG	minus uncinus	
or1st3	L103P	Alleluia.	
or1 Cf.	ocG1	minus uncinus	
or> Cf.	or>1sa1	minus letter	
or>1sa1	L103R	alleluia,	
<b>salicus</b>			
sa	L820	nomini	
sa1	L78H	novi	
sa>1	L9E	sanctos	
salsc4	L93G	exsurge	
salsc6	L93G	autem,	
sa11sc4	L81E	salvasti	
sa11sc6	L113E	bonus,	
<b>pes quassus</b>			
pq	L103H	eius.	
pq1	L169A	Alleluia.	L174T
<b>quilisma</b>			
q1 Cf.	q11sst2	minus letter	
q11sst2	L53C	Domine,	
q1> Cf.	q1>ppn1	minus uncinus	
<b>pes stratus</b>			
pt1	L13A	ventris	
pt2	L8U	confundentur,	
pt3	L94C	Domine.	
<b>subpunctis</b>			
su1 Cf.	c11!pi!	tosu1	
su1sun1 Cf.	c1!topp21su1sun1		
su1sun1su1 Cf.	visu1sun1su11st6		
su1sun1su2 Cf.	visu1sun1su21ss11st6		
su1sun2 Cf.	pusu1sun2		
su1sux1 Cf.	popp2su1sux1		
su2 Cf.	c11!pi!	pesu2	
su2sun1 Cf.	clsu2sun11st6		
su3 Cf.	pusu3		
su4 Cf.	pusu4		
sun1 Cf.	c11!pi!	orsun1	
sun1su1 Cf.	unsun1su11st2lsc6		
sun1su1sun1 Cf.	visun1su1sun1		
sun1su2 Cf.	qlppn1sun1su2		
sun2 Cf.	qlsun2		
sun2su1 Cf.	unsun2su1		
sun2su2 Cf.	unsun2su2		

sun3 Cf.	unsun3
sun4 Cf.	bvsun4
sux1 Cf.	posux1
<b>prepunctis</b>	
pp1 Cf.	pupp1su2
pp2 Cf.	cl1!pipp2
pp2ppn1 Cf.	vipp2ppn1
pp3 Cf.	vipp3lsn3
pp4 Cf.	vipp4lst2
ppn1 Cf.	po>ppn1
ppn1pp1 Cf.	vippn1pp1
ppn1pp1ppz1 Cf.	vippn1pp1ppz11st8
ppn1ppq1 Cf.	vippn1ppq1
ppn1ppz1 Cf.	ql!cl!orppn1ppz1
ppn1ppz1ppq1 Cf.	vi>1ppn1ppz1ppq1
ppn2 Cf.	vippn21st3lsa4
ppn2ppz1 Cf.	vippn2ppz1sun11sa5
ppn2ppz1ppq1 Cf.	vippn2ppz1ppq11st2lsa8
ppn3 Cf.	unppn3sun11sa5
ppn3ppz1 Cf.	toppn3ppz1sun1
ppn4 Cf.	vippn4
ppq1 Cf.	vippq1
ppz1 Cf.	puppz1su2
ppz1ppq1 Cf.	vi>1ppz1ppq1
<b>combined glyphs</b>	
pe!ta Cf.	pe!talsa2 minus letter
pe!talsa2	L820 iudicio
pe!talsc11st2	L114C revelavit
pe!un Cf.	pe!unlsc2 minus letter
pe!unlsc2	L95D meam
pe!pu	L95D eius.
pe!ta>2 Cf.	pe!ta>2lsa2 minus letter
pe!ta>2lsa2	L60E gentes
pe!or	L93G induebam
qlppn1sun1	L53C Domino,
qlppn1sun1su2	L820 tibi
qlppn1su1sun2	L95D frixorio
qlppn1su2 Cf.	qlppn1su21sn11 minus letters
qlppn1su21sn11	L75V mortuus.
qlppn1sun11sc5	L54B quoniam
qlppn1su1sun1	L107H fecit
qlsu1sun1	L43L tua
qlsu1sux1	L71D aquam
qlsu2	L67S tua,
qlsux1	L53C quoniam
qlsun1su2	L44I mearum
qlsun1 Cf.	qlsun1lsa5 minus letter
qlsun1lsa5	L40Q millia
qlsun2	L122N alleluia.
qlsun2lsa5	L125U alleluia.
ql!po	L820 obedivimus
ql!poppz1 Cf.	ql!poppz1lsa3 minus letter
ql!poppz1lsa3	L95D Domine,
ql!poppn1	L43L Domine,
ql!posu1sun1 Cf.	ql!poppz1su1sun1 minus uncinus
ql!poppz1su1sun1	L43L mandata
ql!posun1 Cf.	ql!poppn1sun1 minus uncinus
ql!poppn1sun1	L61I Iustitiae
ql!poppn11st2	L103P Alleluia.
ql!posux1 Cf.	ql!poppn1sux1 minus uncinus
ql!poppn1sux1	L61I corda,

ql!polsm1	L103P immolatus
ql!polsa11sa3lsa9	L56P nostris
ql!po> Cf.	ql!po>ppn1 minus uncinus
ql!po>ppn1	L60A ancillae
ql!cl	L43L doceas
ql!cl!to Cf.	ql!cl!to1st6 minus letter
ql!cl!to1st6	L95D me.
ql!cl!to!or Cf.	ql!cl!to!orsun1 minus uncinus
ql!cl!to!orsun1	L19B nobis.
ql!cl!toppn1	L72B vitam,
ql!cl!tosu3 Cf.	ql!cl!tosu31st6 minus letter
ql!cl!tosu31st6	L82T hostias,
ql!cl!or Cf.	ql!cl!orppn1ppz1 minus uncinus & virga
ql!cl!orppn1ppz1	L109P Populus
ql!cl!tr> Cf.	ql!cl!tr>ppz1 minus virga
ql!cl!tr>ppz1	L54B vias
ql!clppn1	L54B a
qlppn1	L820 nomini
qlppn1ppz1	L820 gloriam
qlppn1ppz11st2	L820 da
qlppn1ppz1sun1 Cf.	qlppn1ppz1sun11sa5 minus letter
qlppn1ppz1sun11sa5	L54B mihi
qlppn1ppz1su1sun1	L43I dominorum
qlppn2sun1 Cf.	qlppn2sun11sa5 minus letter
qlppn2sun11sa5	L53C Beati
qlppn2sun2 Cf.	qlppn2sun21sa51sa5 minus letters
qlppn2sun21sa51sa5	L122V sic
qlppz1su2	L40Q draconem.
qlppz1su1sun1	L53C nos
ql>ppn1	L95D confrixa
ql>ppn11sc3	L90D speraverunt
popp2	L820 multitudinem
popp2su1sux1	L8U confundentur,
posux1	L20P eius
posux11sa5	L114V alleluia,
posun11sa5	L123A alleluia.
poMsun1	L81E meos
posu1sun1	L123E alleluia.
vippn1su1	L56D Deus
vippn1sux1	L53C Memento
vippn1su1sun1	L45R tuae,
vippn1su1sun11st2	L95D Domine,
vippn2sun1 Cf.	vippn2sun11sa4 minus letter
vippn2sun11sa4	L44I mea
vippn2 Cf.	vippn2lsa4 minus letter
vippn21sc4	L56D quaerunt
vippn21sa4	L44I Elevatio
vippn21st3lsa4	L103P Alleluia.
vippn3	L38I Domino,
vippn4	L60E homo
vipp2ppn1	L13A gratia
cl!pe Cf.	cl!pe1sc2 minus letter
cl!pe1st2	L95D sum
cl!pe1sc2	L105A Domini
cl!pe1sn7	L103H ea.
vipp2su2	L43L mihi
vipp2sun11sa5	L168L eum
vipp3 Cf.	vipp31sn3 minus letter



vipp3lsn3	L152S	Sicut
vippn1pp1	L11Q	Israel,
vippn1pp1su1sun2	L40Q	volante
vippn3su4	L173D	Alleluia.
vipp4 Cf.	vipp41st2	minus letter
vipp41st2	L13A	Ave
vippz1ppq1	L40Q	lapidem
vippn1ppq1	L33S	venti.
vippn1ppz1ppq1	L101V	Israel
vippn1pp1ppz1 Cf.	vippn1pp1ppz11st8	minus letter
vippn1pp1ppz11st8	L25M	ore
vippn2ppz1ppq1 Cf.	vippn2ppz1ppq11st21sa8	minus letters
vippn2ppz1ppq11st21sa8	L169A	confitebor
vippn2ppz1sun11sa5	L173D	Alleluia.
vippn3sun11sa5	L173D	Alleluia.
vippq1	L168S	regna.
cl1!or Cf.	cl1!orlss3	minus letter
cl1!orlss3	L60E	iudicentur
cl1!orlsc3	L60E	conspectu
cl1!pi	L95D	avertas
cl1!pi>	L53C	misericordia
cl1!pi!to	L820	fecisti
cl1!pi!vi	L95D	Domine,
cl!pi!vi>	L67S	Virga
cl1!pi!cl	L640	implebis
cl1!pi!pesu2	L61I	dulciora
cl1!pilsn31sa6	L174I	me
cl1!pilsn8	L53C	iudicium,
cl1!pilsn9	L640	Aperis
cl1!pilst9	L90D	Longe
cl1!pipp2	L60A	Deum
cl1!pi!orsun1	L90D	Israel.
cl!po	L67S	es,
cl!popp3	L122V	ascendentem
cl!to	L17H	eius.
cl!tosu1	L17H	eius.
cl!tosu1lsc6	L81E	me
cl!tosu1lsc61st8	L81E	me
cl!topp2	L64D	misericordia
cl!toppz1su1sun1	L35T	Israel
cl!tolst9	L56I	dilexit
cl!to>	L56I	aequitatem
cl!tosun11sa5	L164D	meam.
cl!to!pi Cf.	cl!to!pipp2	minus prepunctis
cl!to!pipp2	L33C	arcus,
cl!to!pi!cl	L77S	Israel
cl!to!pi!clpp2	L33C	eius,
cl!to!pi!clpp21sn9	L68Q	Sion
cl!to!cl!cl	L81R	meis,
to!cl	L95D	Domine,
to!cl!cl Cf.	to!cl!cl1st9	minus letter
to!cl!clsun2 Cf.	to!cl!clsun21sa5	minus letter
to!cl!clsun21sa5	L43L	tuam
to!cl!cl1st9	L8A	invocavite.
to!cl!clsu1	L33P	meam.
to!cl!pi	L84B	iniqui
to!cl!orsun1	L114V	terrae
to!clsun1	L54B	quoniam
to!clsun11sa5	L11Q	Ioseph.
to!clsu2 Cf.	to!clsu21sn6	minus letter
to!clsu21sn6	L8D	dabit
to!clsuisun1 Cf.	to!clsuisun11sm6	minus letter
to!clsuisun11sm6	L24D	opera
clsu2sun11st6	L35T	tuam.

to!clM	L77C	corde
to!cl>1	L77C	tuum,
to!po	L84B	Appropinquaverunt
to!pohd	L105A	quaeritis,
to!to Cf.	to!toppn1sun1	minus 2x uncinus
to!tosun1 Cf.	to!toppn1sun1	minus uncinus
to!toppn1sun1	L43L	discam
to!to!pi!cl Cf.	to!to!pi!clpp2	minus prepunctis
to!to!pi!clpp2	L60A	nostrum,
toS!to	L53C	Confitemini
toS!tolst9	L90D	Deus,
toS!pe	L123E	Exaudi,
to!or	L67S	Domine.
to!orsun11sa5	L8U	Domine.
to!orlst3	L114V	audiatur,
to!orlsc6	L152S	taurorum,
to!pi!cl	L31D	est,
to!pi!cl!pi!pi	L40Q	millia
to!pi!cl!pi!orsun11sa5	L40Q	speravit,
oc!vi Cf.	oc!visun1	minus uncinus
oc!visun1	L95D	Domine,
orsu1sun1	L94C	Domine.
orsu1sun1lsc2	L94C	Domine.
orsu1sun1lsc3	L94C	iniquis
un!clG	L95D	exaudi
topp2	L95D	meus
topp2sun1	L45R	tuarum,
toppn3ppz1sun1	L58A	me.
to>pp2	L90D	insipientiam
pupp2su1sun1	L95D	sunt.
pupp2su2	L93E	me.
pupp1su2	L640	opportuno.
pupp1su1sun1	L58A	clamavi,
puppn1su1sun2	L40Q	mille,
puppz1su1sun2	L40Q	mille,
puppz1su2	L168S	tua
ds1!ds1	L43L	meos,
ds1!ts	L67S	mecum
ds1!ts1	L60E	tuo.
cl1!orsun1	L43L	considerabo
cl1!orsun11sa5	L8U	fac
cl!or Cf.	cl!orpp2	minus prepunctis
cl!orpp2	L93G	induebam
cl1!orpp2	L103R	mirabilis
ds1!clsun2 Cf.	ds1!clsun21st5	minus letter
ds1!clsun21st5	L43L	doceas
ds1!clsuisun1 Cf.	ds1!clsuisun11st5	minus letter
ds1!clsuisun11st5	L56S	Salvum
ds1pp3	L149E	tibi.
vi>1pp2	L67S	umbrae
vi>1ppz1ppq1	L40Q	custodiant
vi>1ppn1ppz1ppq1	L106S	Alleluia.
pfsun1 Cf.	pfsun11sn5	minus letter
pfsun11sn5	L67S	tua,
pfppn1ppq1sun11sa5	L123A	Deus
un1ppn1ppq1sun2	L1120	estis,
un1sun2 Cf.	un1ppn1ppq1sun2	minus uncinus & quilisma
un1ppn1sun2	L1120	Christum
un1ppn1sun1su21sa5	L152I	accelera,
clsun11st5	L44I	vespertinum.
clsu31st5	L60E	tuo.
tosu1sun1 Cf.	tosu1sun11sn6	minus letter
tosu1sun11sc61st7	L109P	vocavit

tosu1sun1lsn6	L19B	venit
tosu2 Cf. <i>١٢</i>	tosu21st6	minus letter
tosu21st6	L37M	tu
tgsun1lsa5	L103H	quoniam
cl!cl!cl!sun1lsa5	L103P	Alleluia.
cl!cl!cl Cf. <i>١٣</i>	cl!cl!cl!sn9	minus letter
cl!cl!cl!sn9	L31D	Domine
cl!cl!pi	L54B	commovear
cl!cl!pi!vi	L123A	Dominus
cl!cl!to	L149E	meam,
cl!cl!po	L81R	insurgentibus
cl1!pi!pi!vi	L54B	es
cl1!pi!pisun1lsa5	L1740	plaudite
cl1!pi!tosu1	L37S	mei
cl1!pi!tosun1	L1740	plaudite
sa1sun1lsa5	L11Q	tuam
trsun2 Cf. <i>١٤</i>	trsun21sa5	minus letter
trsun21sa5	L13A	Ave
trsunx1 Cf. <i>١٥</i>	trsunx11sa5	minus letter
trsunx11st8	L20P	eius,
trsunx11sa5	L136A	aeternam
trsu2 Cf. <i>١٦</i>	trsu21st31sm8	minus letters
trsu21st31sm8	L136A	vobis
trsun1su2 Cf. <i>١٧</i>	trsun1su21sa3	minus letter
trsun1su21sa3	L149C	Domini
trsun1lsa31sa5	L18L	terra
trsun1lsa5 Cf. <i>١٨</i>	trsun1lsa31sa5	minus letter
bvsun4	L8U	me.
oc!cl	L31D	Domine.
oc!clM	L77S	peccatorum.
oc!pe!pu	L53C	tuo.
tg!cl	L31D	est,
tg!cl>1	L33C	eius,
tg!cl!sn9	L68Q	Sion
tg!or	L77C	tibi
unppn1sun2	L40Q	Cadent
unppn1sun21sa5	L123E	quaesivi
unppn1sux1	L72B	eius
unppn1sux11sa5	L24D	exaltavit
unppn1sun1su2	L58A	Domine,
unppn1ppz1sun1 Cf. <i>١٩</i>	unppn1ppz1sun11sa5	minus letter
unppn1ppz1sun11sa5	L80S	habitat
unppn3sun11sa5	L24D	fecit
ta>ppn1	L95D	et
ta>pp2	L33C	ut
pt1ppn1	L99P	tuo.
tssun1lsa5	L24D	dextera
cl>1pp2	L114C	alleluia,
tasu2	L24T	tuam.

<b>significant letters</b>			
<i>٢٠</i>	lsa Cf. <i>٢٠</i>	vi>lsa6	augete
<i>٢١</i>	lsc Cf. <i>٢١</i>	pe!unlsc2	celeriter
<i>٢٢</i>	lseq	L78H hic	equaliter
<i>٢٣</i>	lseq-	L78H quotiescumque	equaliter
<i>٢٤</i>	lsequ	L56D confundantur	equaliter
<i>٢٥</i>	lsf Cf. <i>٢٥</i>	polsf21st3	fastigium
<i>٢٦</i>	lsh	L44D a	humiliter
<i>٢٧</i>	lshn Cf. <i>٢٧</i>	cl1shn8	humiliter nectum
<i>٢٨</i>	lshp Cf. <i>٢٨</i>	tr1st31shp7	humiliter parum
<i>٢٩</i>	lsl Cf. <i>٢٩</i>	pels12	levare
<i>٣٠</i>	lsn Cf. <i>٣٠</i>	cl1sn9	non (tenere), negare, nectum, naturaliter non levare
<i>٣١</i>	lsnl Cf. <i>٣١</i>	cl1sn12	non tenere
<i>٣٢</i>	lsnt Cf. <i>٣٢</i>	pulsnt3	mediocriter
<i>٣٣</i>	lsm	L67S Virga	mediocriter
<i>٣٤</i>	lsmd	L820 da	mediocriter
<i>٣٥</i>	lss	L95D tempus	sursum
<i>٣٦</i>	lssimp	L8U Domine,	simpliciter
<i>٣٧</i>	lssimpl	L81R insurgentibus	simpliciter
<i>٣٨</i>	lssp	L54Ae Domine,	sursum parum
<i>٣٩</i>	lsst Cf. <i>٣٩</i>	pelsst11sm4	sursum tenere
<i>٤٠</i>	lst Cf. <i>٤٠</i>	clsun11st5	tenere
<i>٤١</i>	lsth Cf. <i>٤١</i>	tolsth8	tenere humiliter
<b>tironian notes</b>			
<i>٤٢</i>	lti	L78H pro	iusum
<i>٤٣</i>	ltdo	L140 misericordiam	deorsum
<i>٤٤</i>	ltdr	L132E descendit	devertit
<i>٤٥</i>	ltdx	L122V intuerentus	devexum
<i>٤٦</i>	ltps	L128S veniat,	prode sub eam (trade subtus)
<i>٤٧</i>	ltqm	L118E sum	quam mox
<i>٤٨</i>	ltsb	L11Q et	sub
<i>٤٩</i>	ltse	L144C corde	seorsum
<i>٥٠</i>	ltsj	L164D meam	subjice
<i>٥١</i>	ltsl	L117R delectati	saltim
<i>٥٢</i>	ltsn	L17H gloriam	sonare
<i>٥٣</i>	ltsp	L10I Ierusalem	supra
<i>٥٤</i>	ltsr	L14P et	sursum
<i>٥٥</i>	ltst	L25L omnes	saltate (salte)
<i>٥٦</i>	ltus	L17H eius.	ut supra