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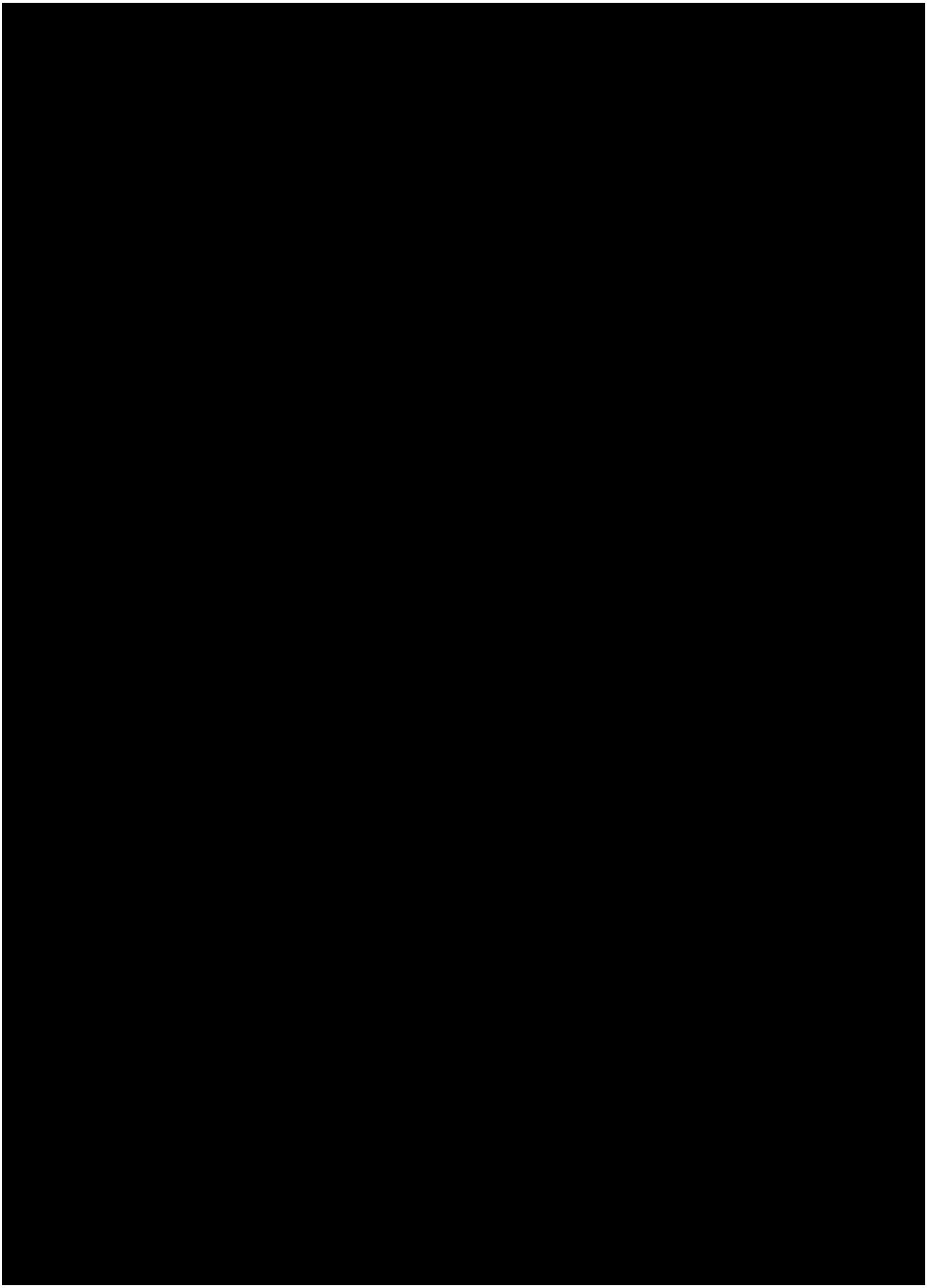
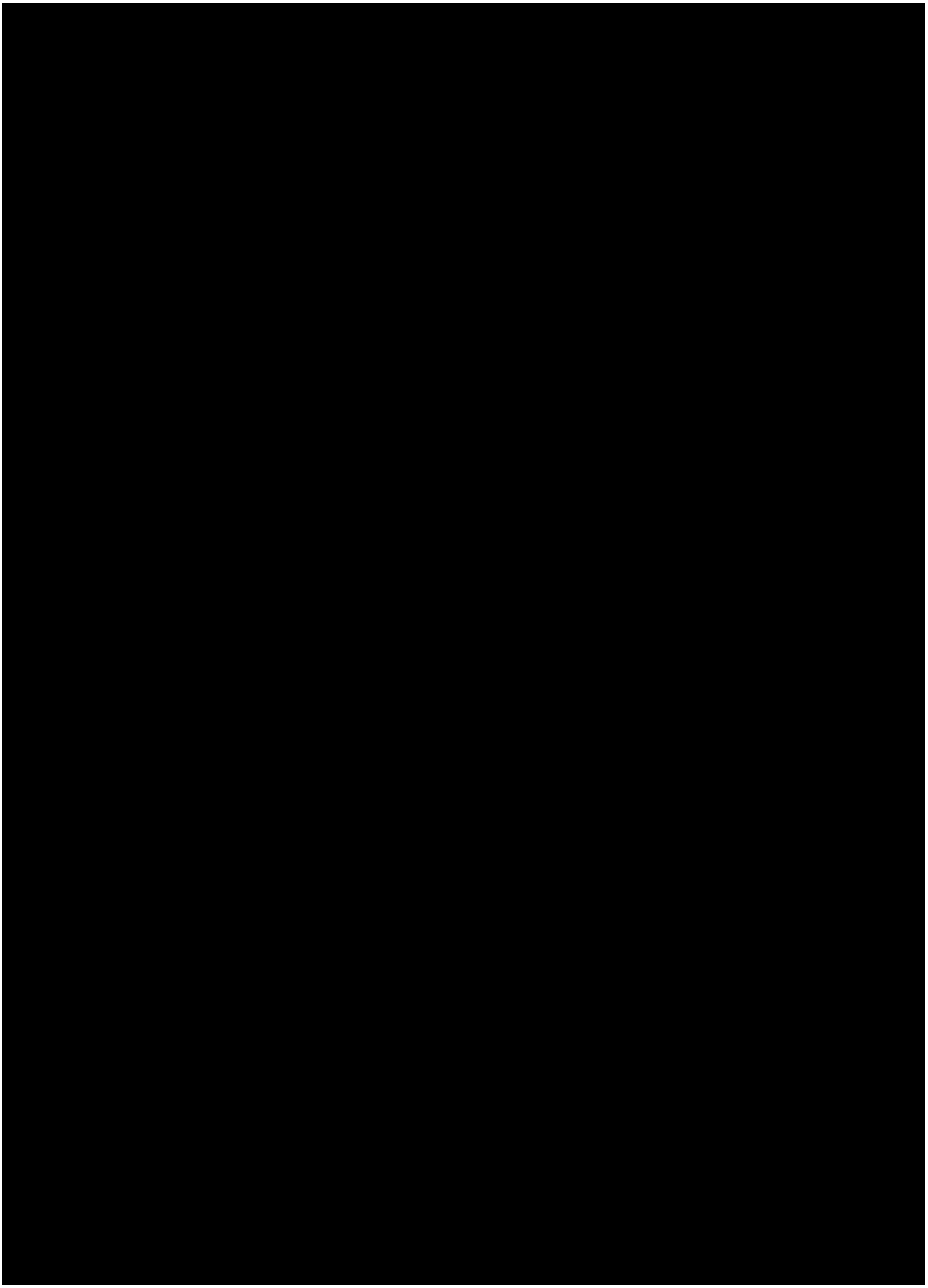
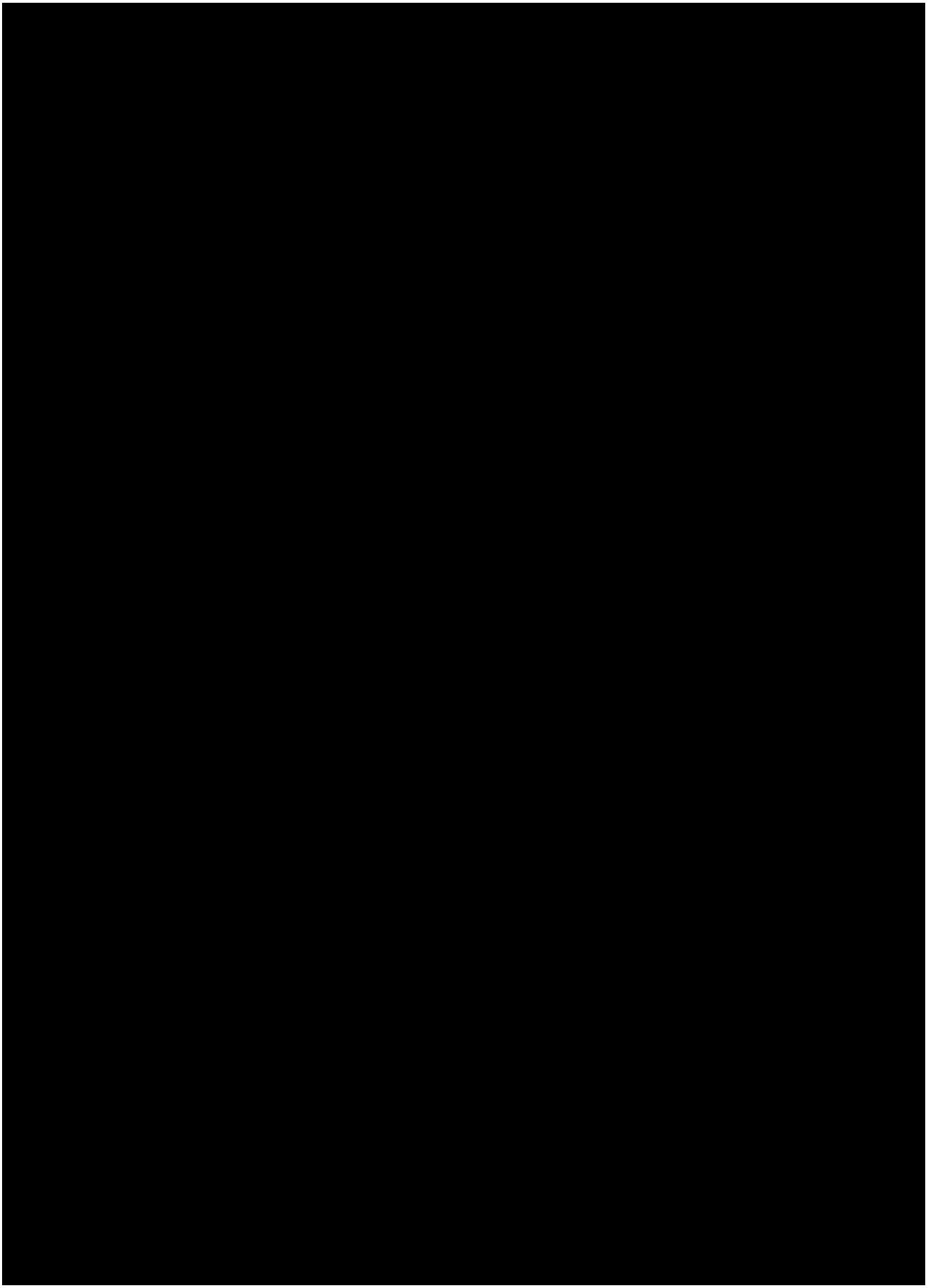
according to EG; "Minimum Contents of an IENC" *(InlandEcdis stand.2.1 : Edition1 Version3 feb2008)*		
V1	shoreline ~coastline ~high water line	***1**
V2	shoreline construction	
V3	contours of locks and dams	
V4	boundaries of the navigation channel	
V5	isolated under water dangers *in the navigable channel* *(wrecks, obstructions,…)*	
V6	isolated dangers above water *in the navigable channel* *(bridges, overhead cables,…)*	
V7	official aids to navigation *(buoys, beacons, lights, notice marks …)*	
V8	waterway axis with kilometers/hectometers or rivermiles	
according to EU-Guideline		
=*V8*	waterway axis with kilometers/hectometers or rivermiles	
V9	restrictions for vessels or convoys in terms of length, width, draught and air draught	
V10	operation times of restricting structures, in particular locks and bridges	
V11	location of ports and transhipment sites	
V12	reference data for water level gauges relevant to navigation	

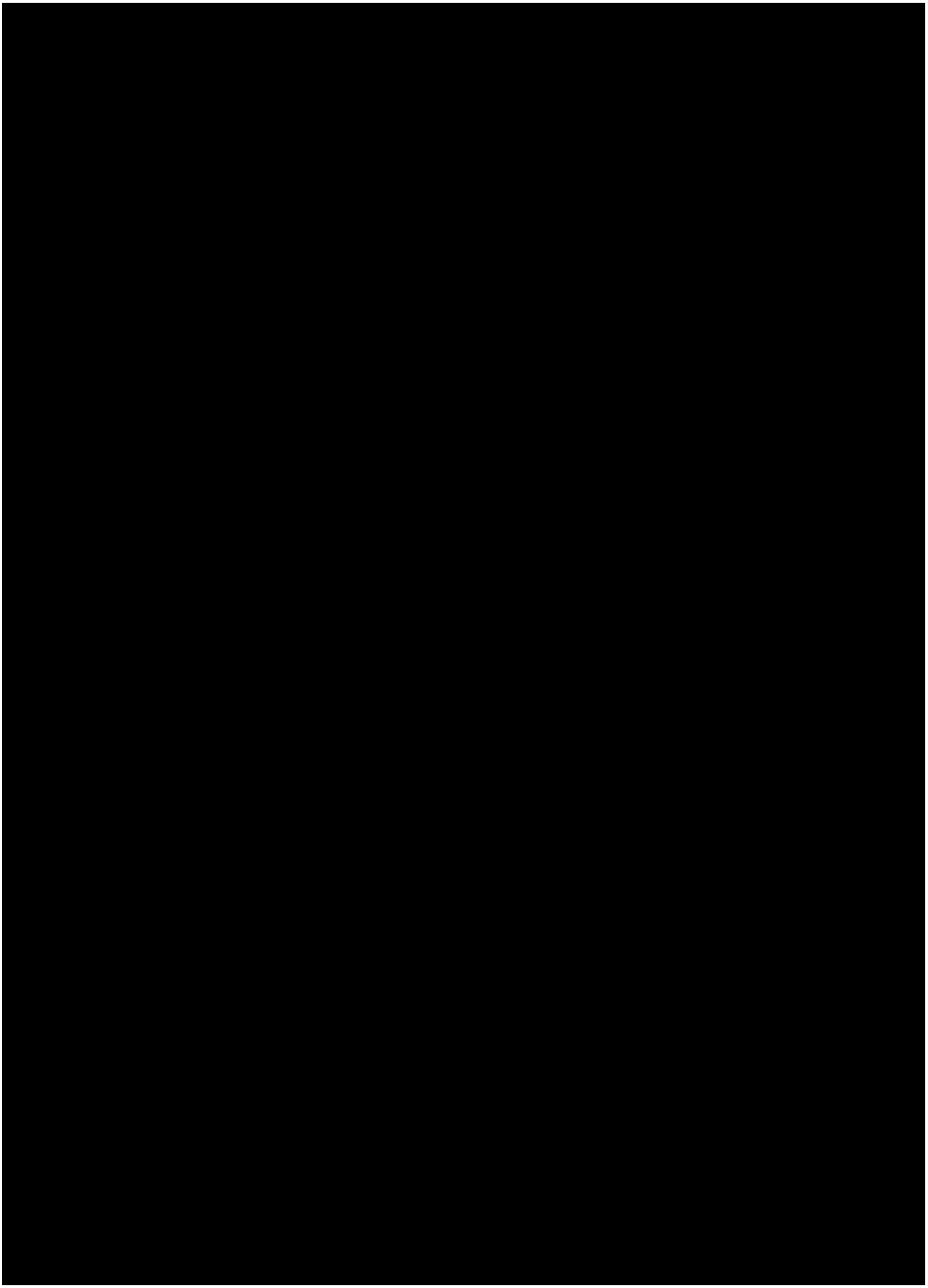
***1**

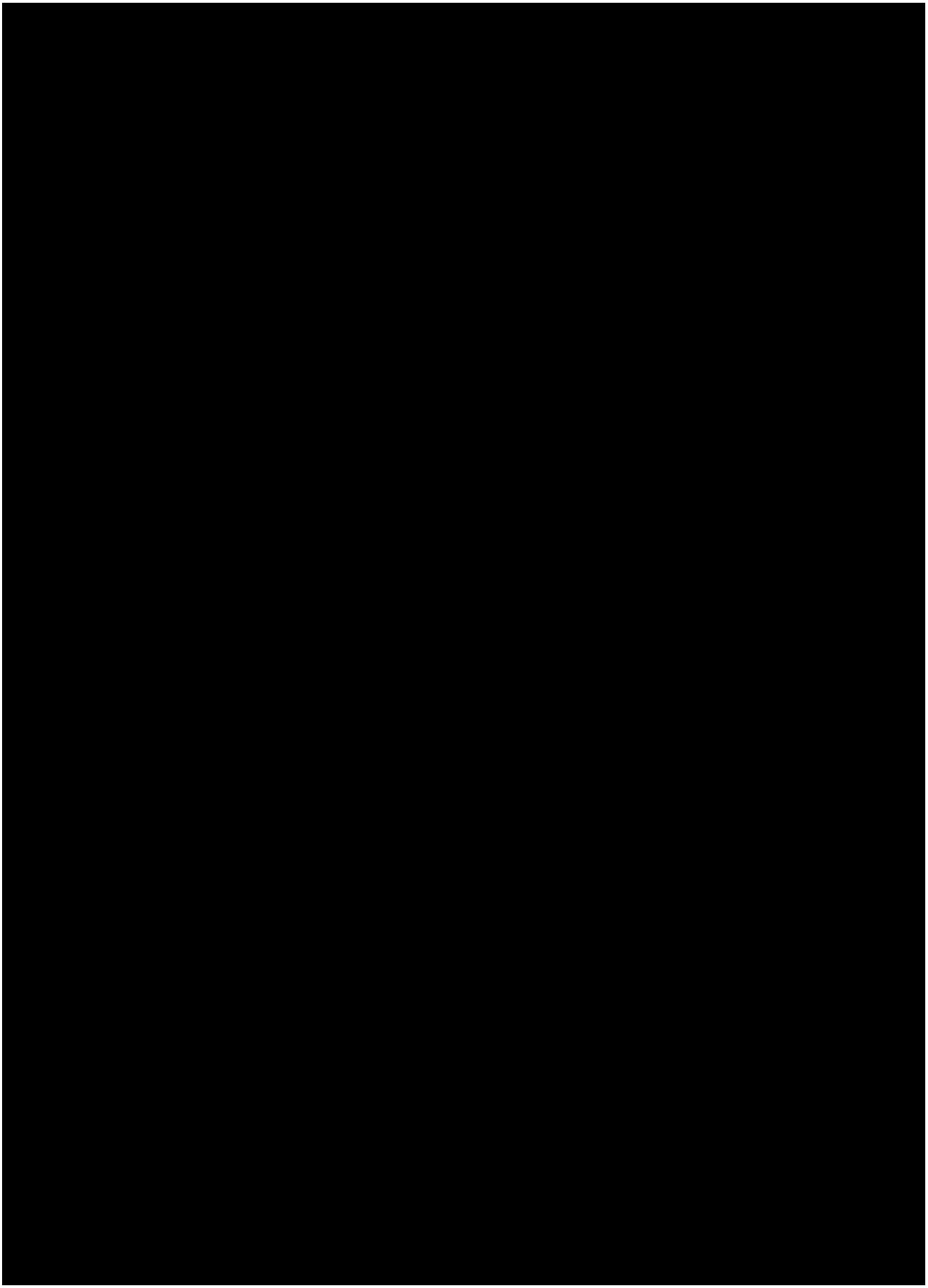
According to S-57 standard (S-57 APPENDIX B.1 Annex A - Use of the Object Catalogue for ENC):
"*In all cases the coastline is encoded as either a COALNE (line) or a SLCONS (line or area). These features form the border of the land area (LNDARE). "*
according to S-57 standard (S-57 Appendix B Product Specifications):
Each defined geographical area in an IENC-cel that can be effectively charted shall be covered without overlapping, the following S57objects as an area:
LNDARE ;land area
PONTON ;pontoon
FLODOC ;floating dock
HULKES ;hulk
DEPARE ;depth area
DRGARE ;dredged area
UNSARE ;unsurveyed area

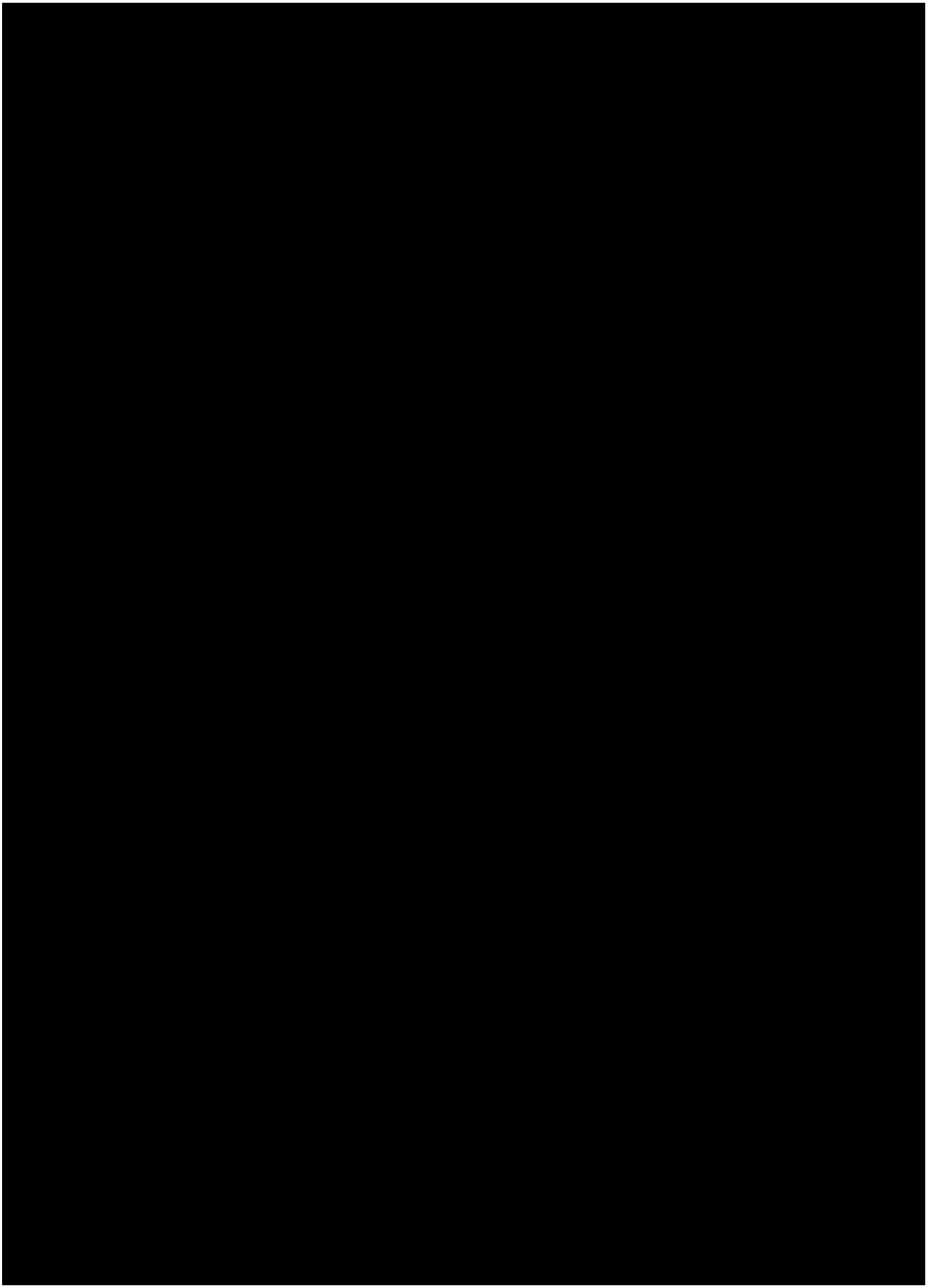


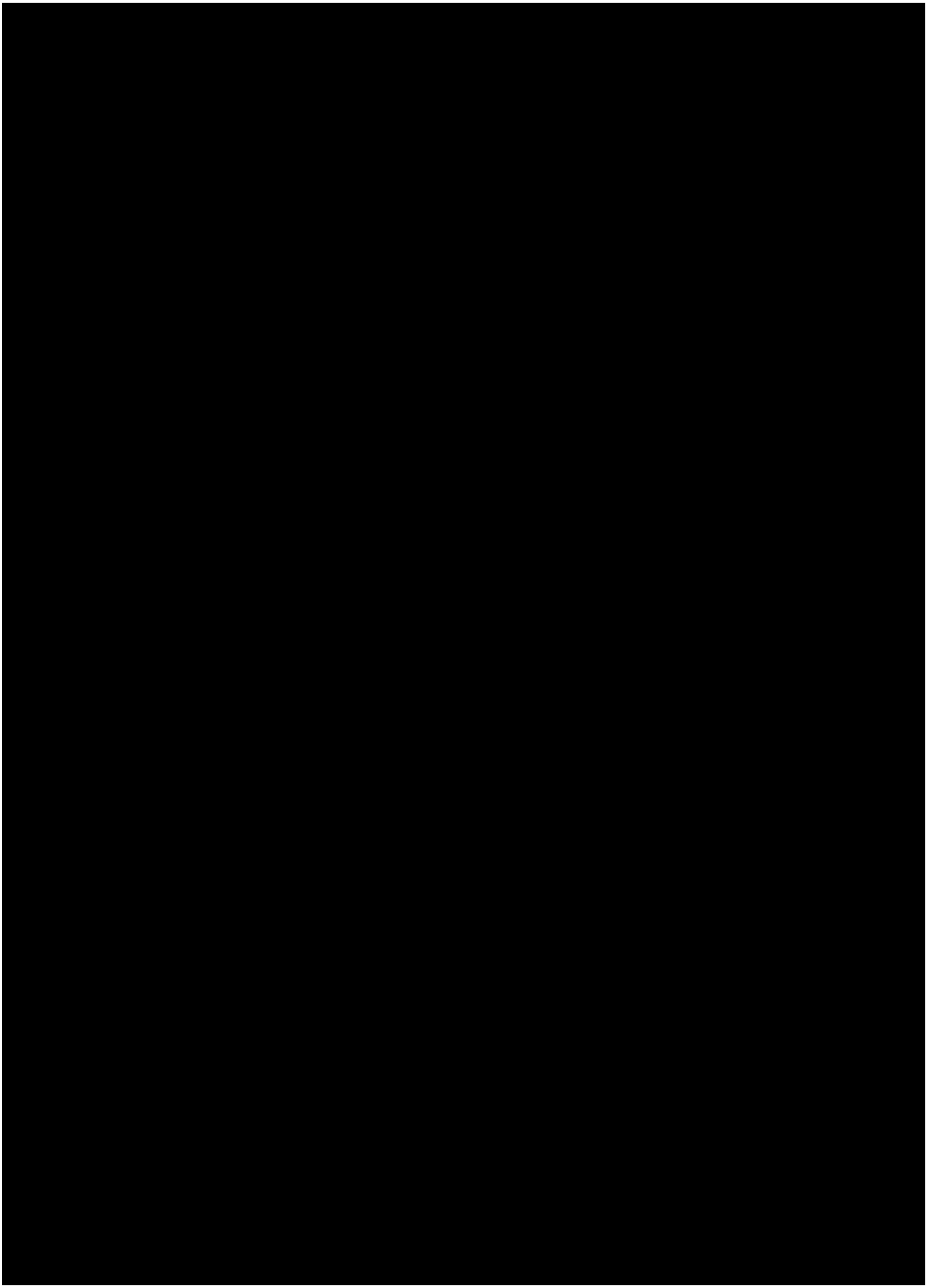


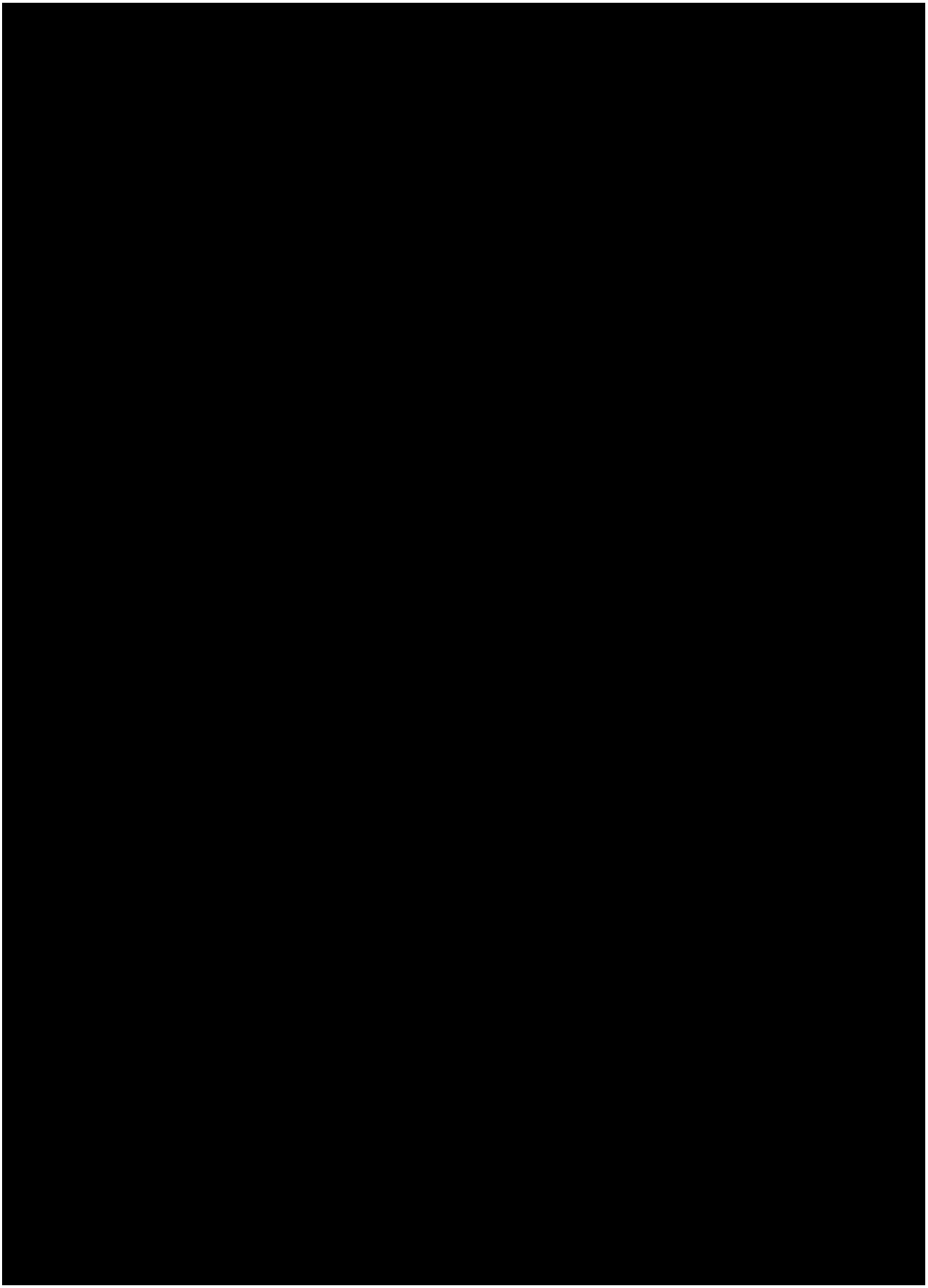


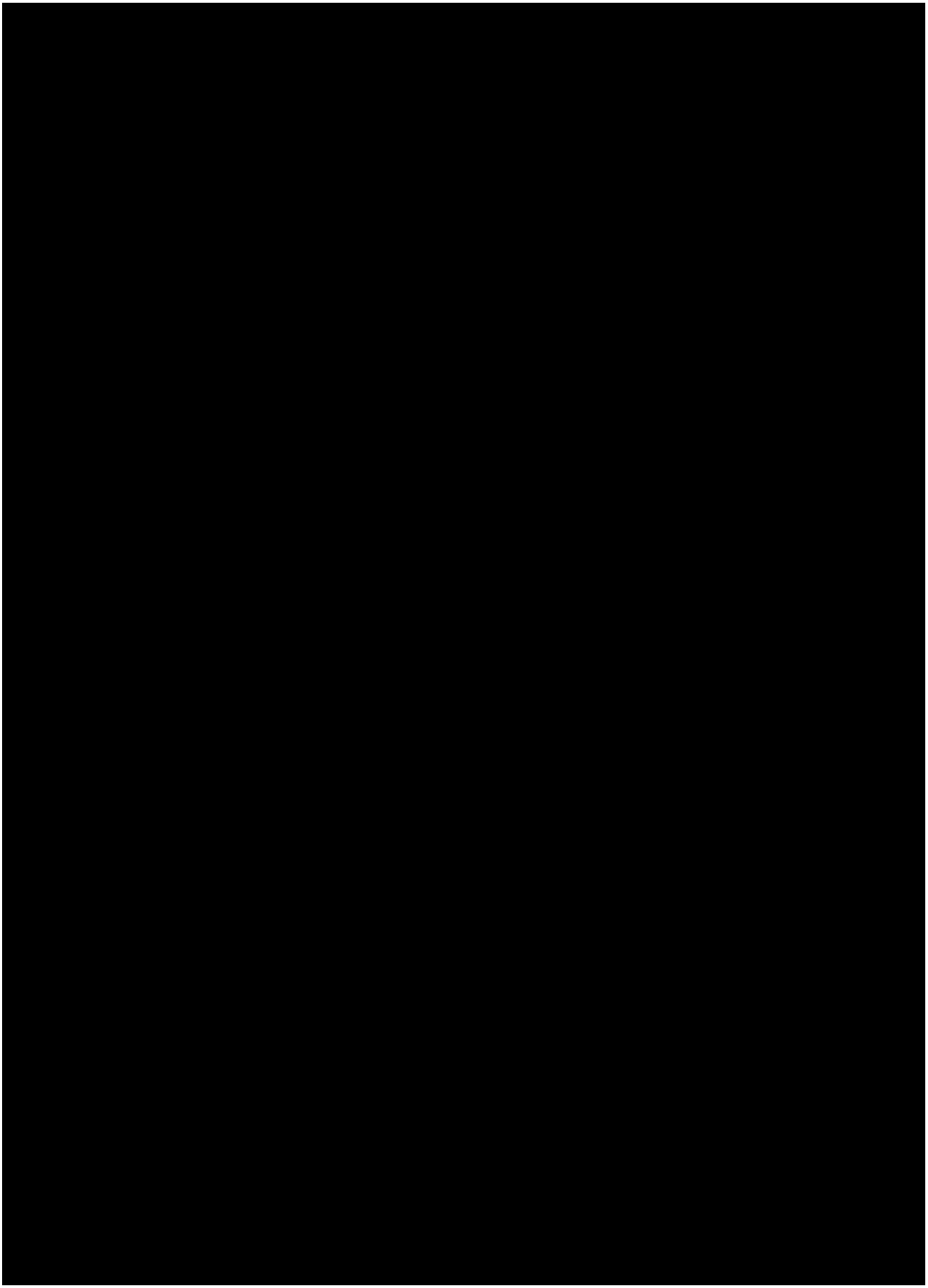


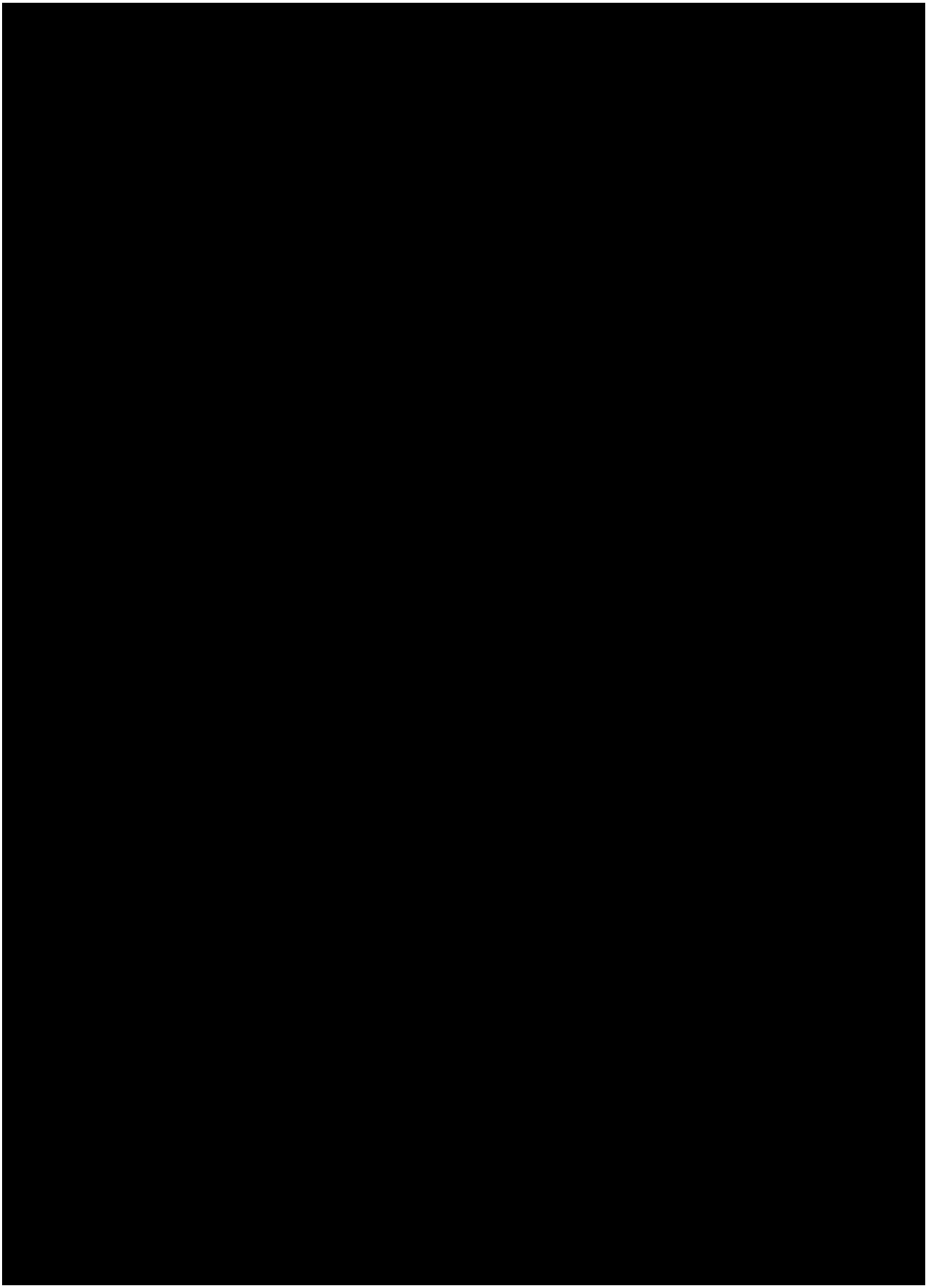


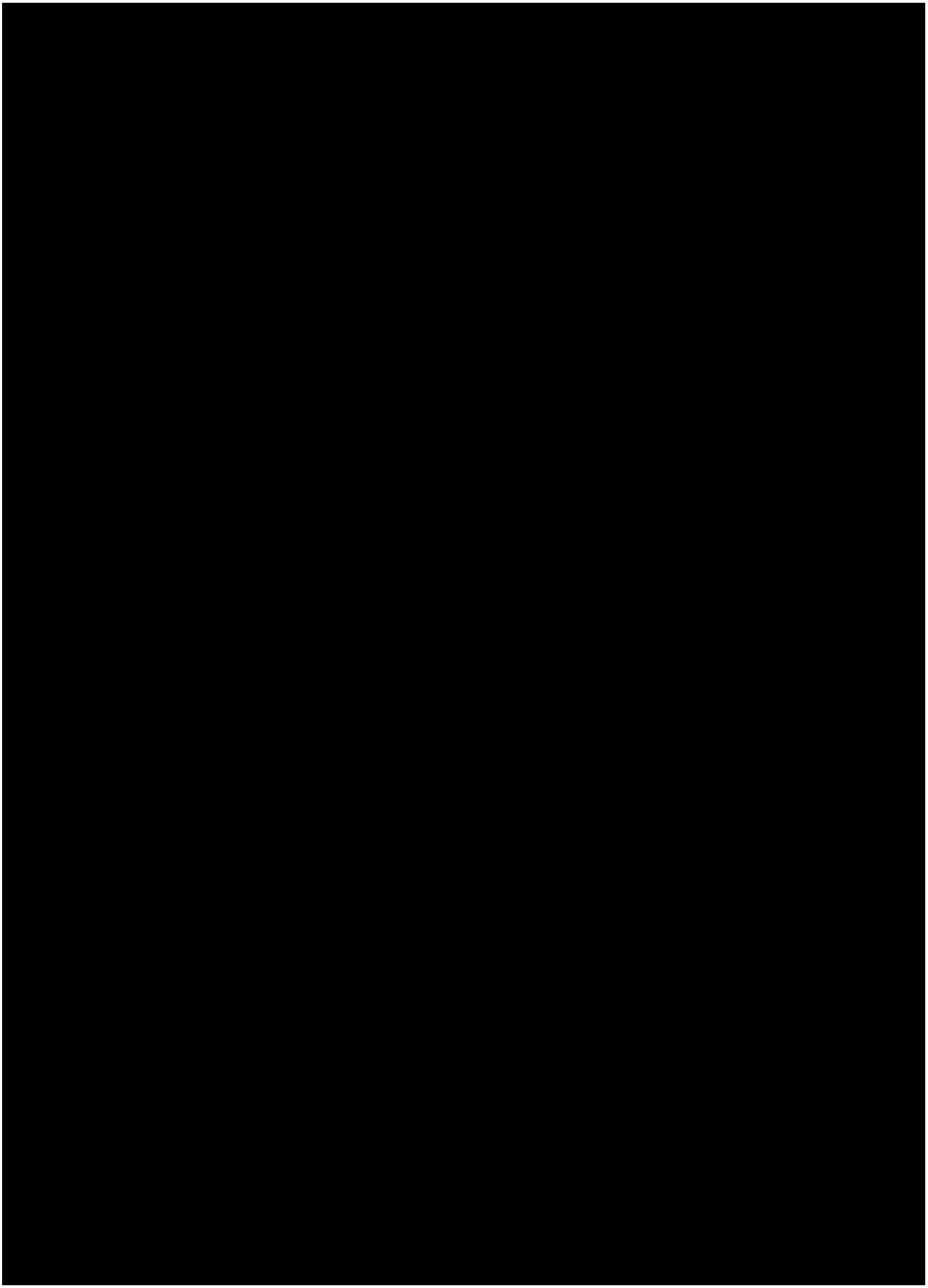


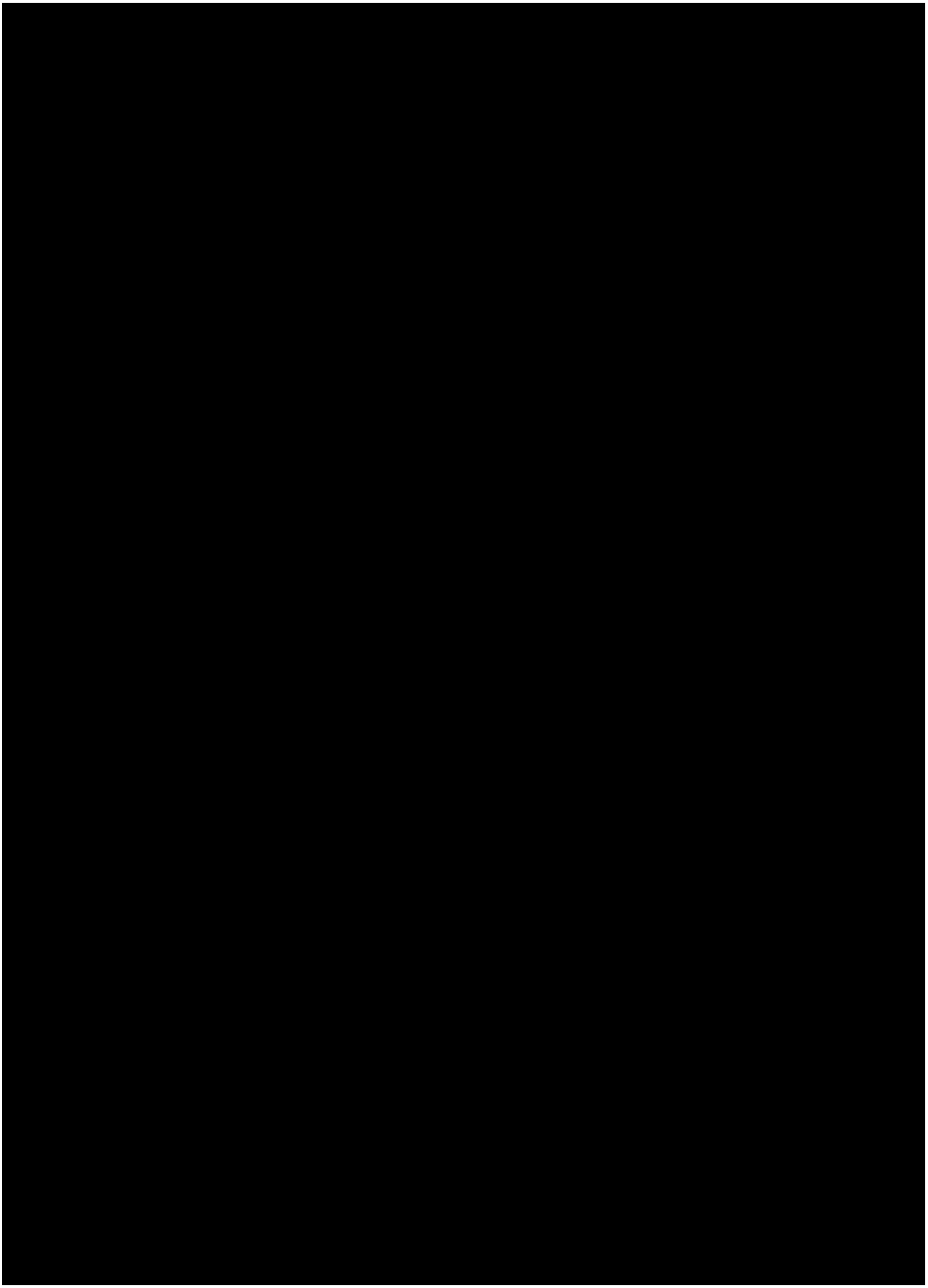


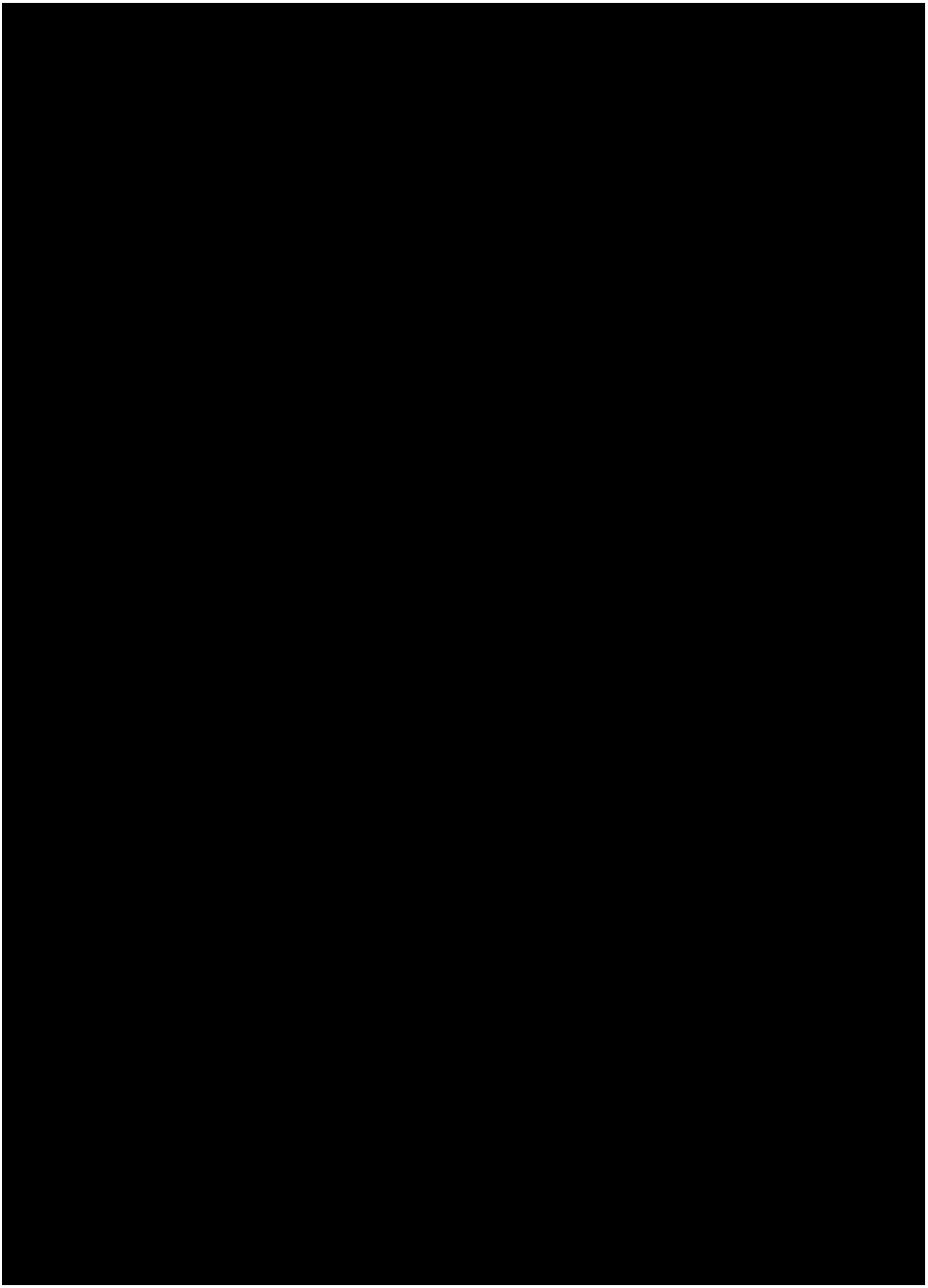


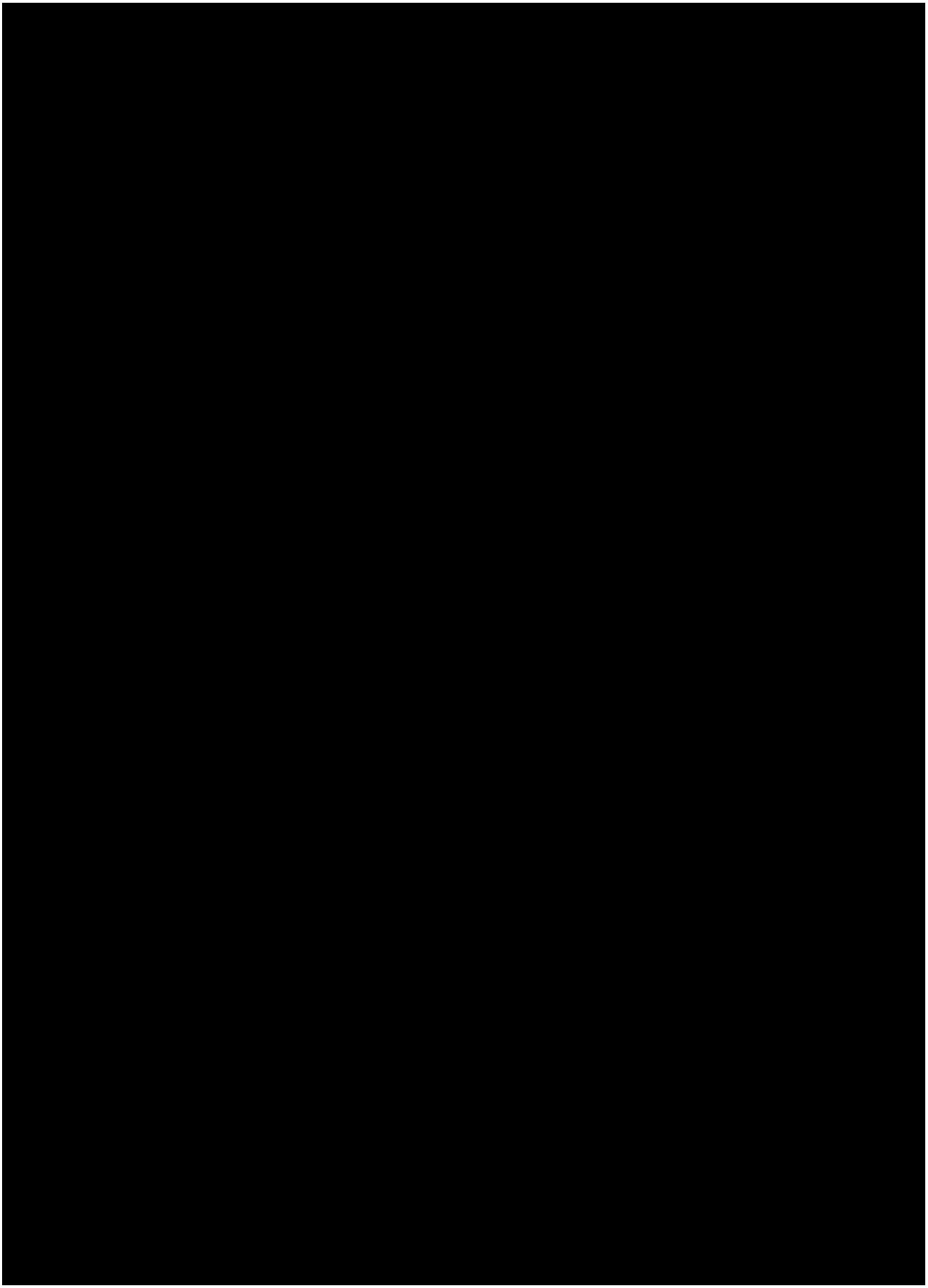


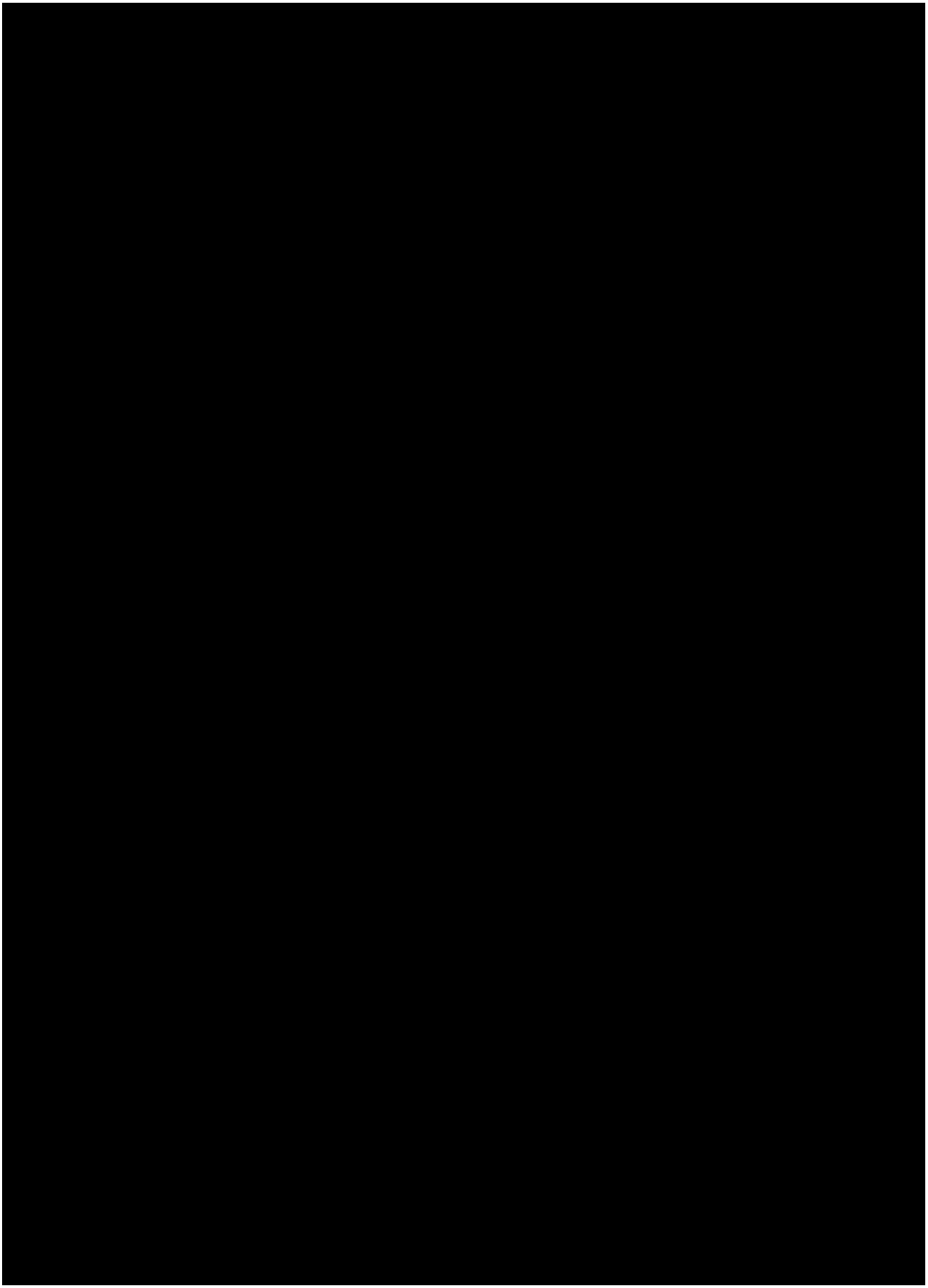


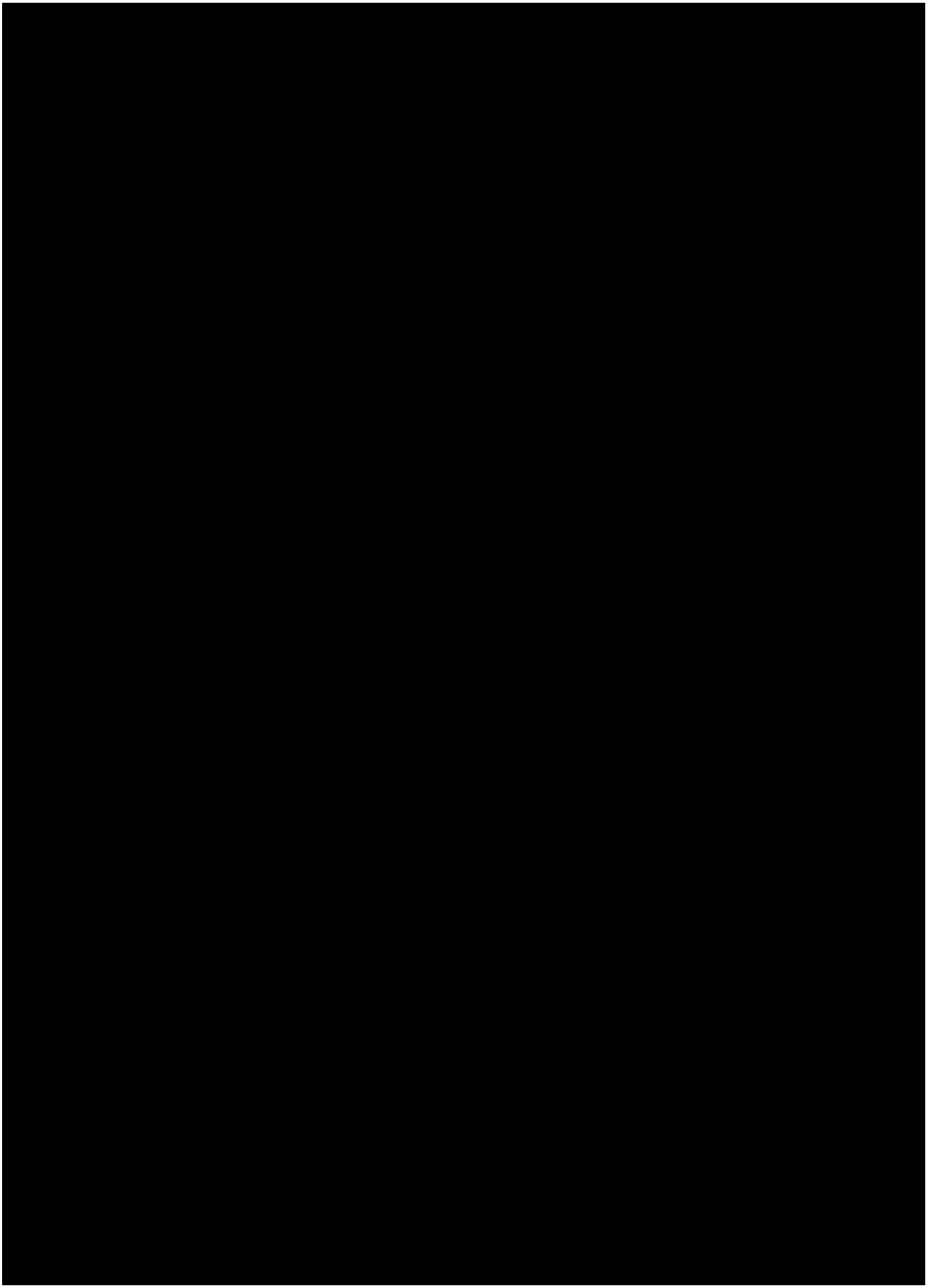


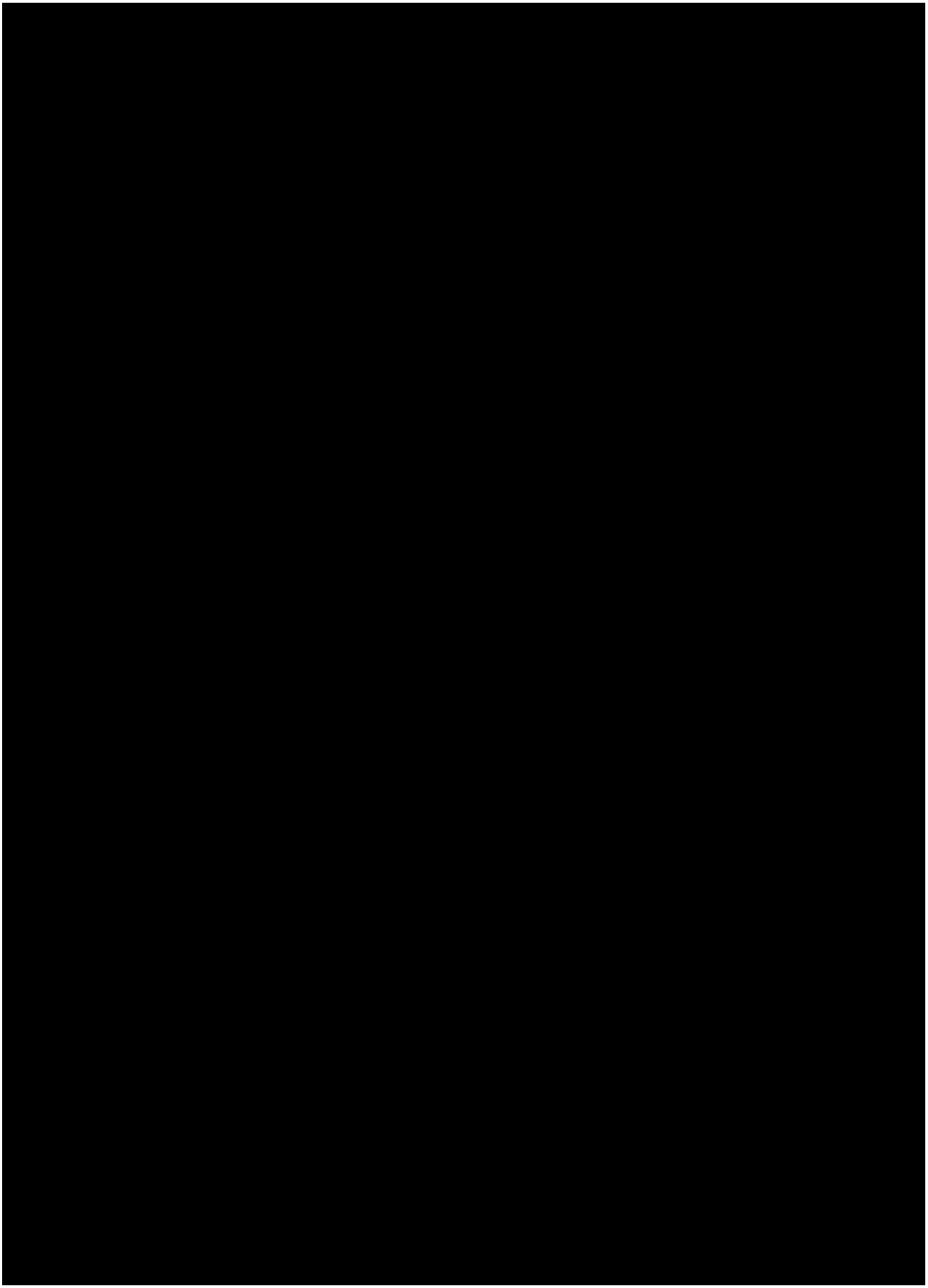


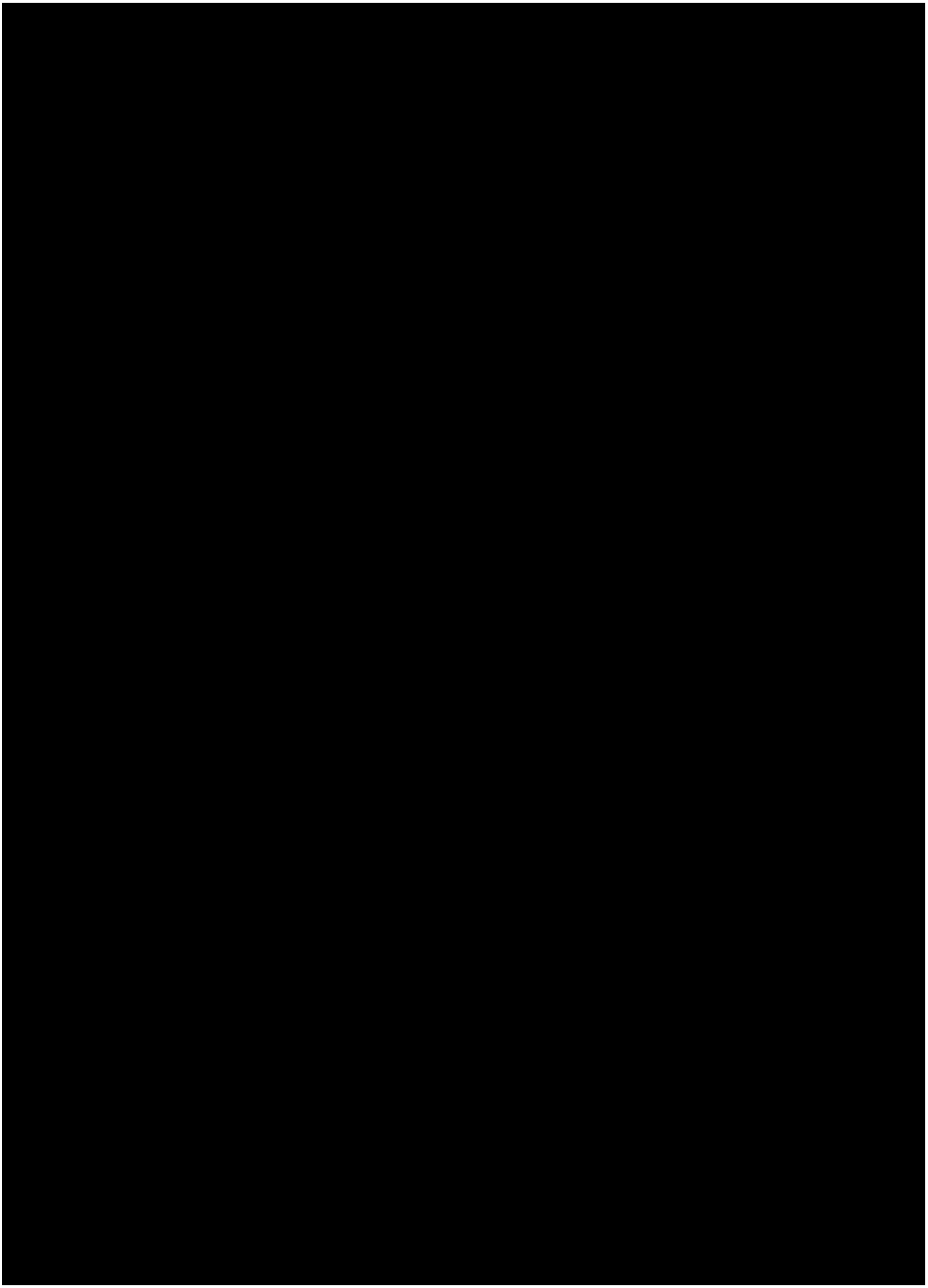


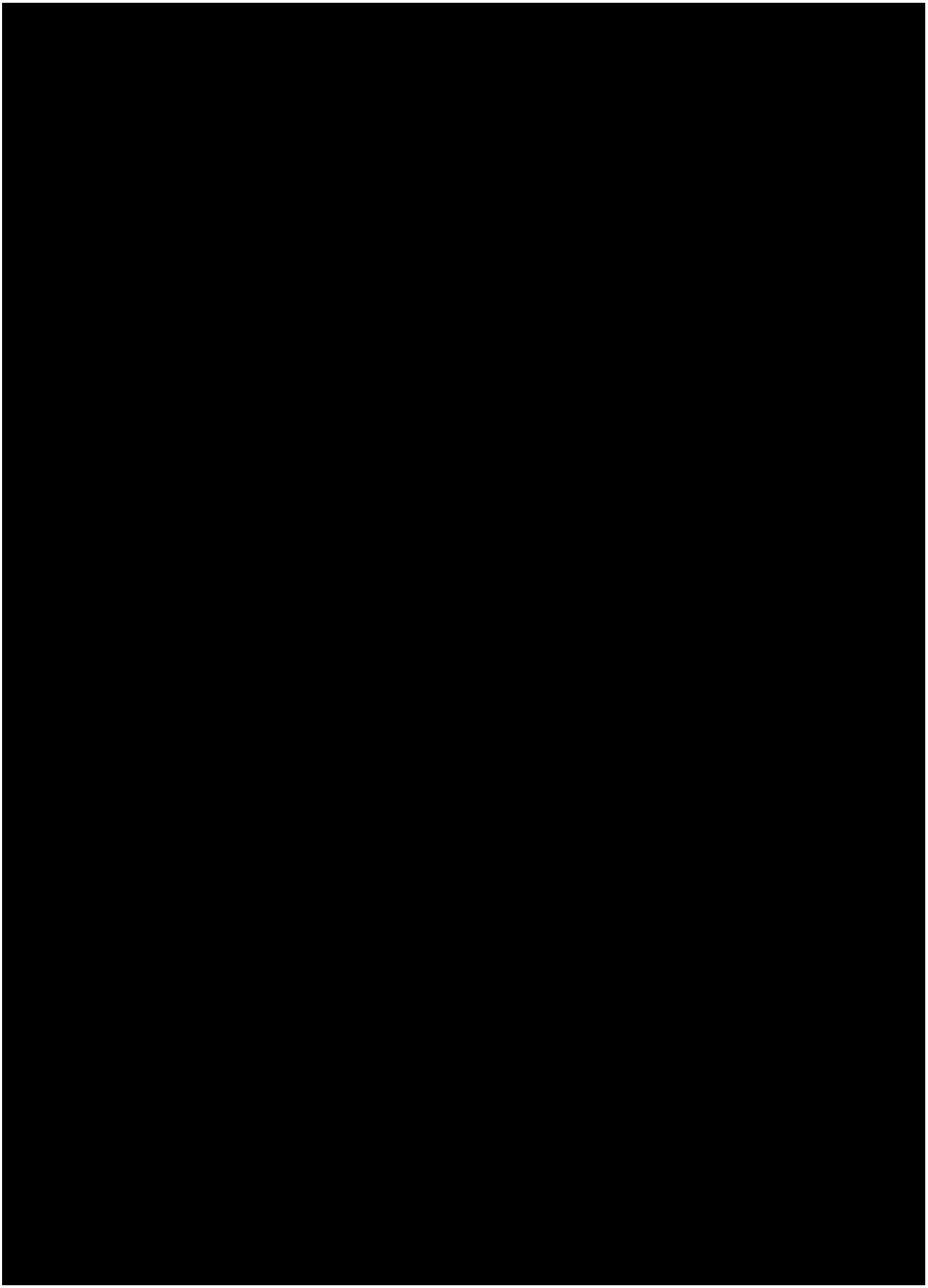


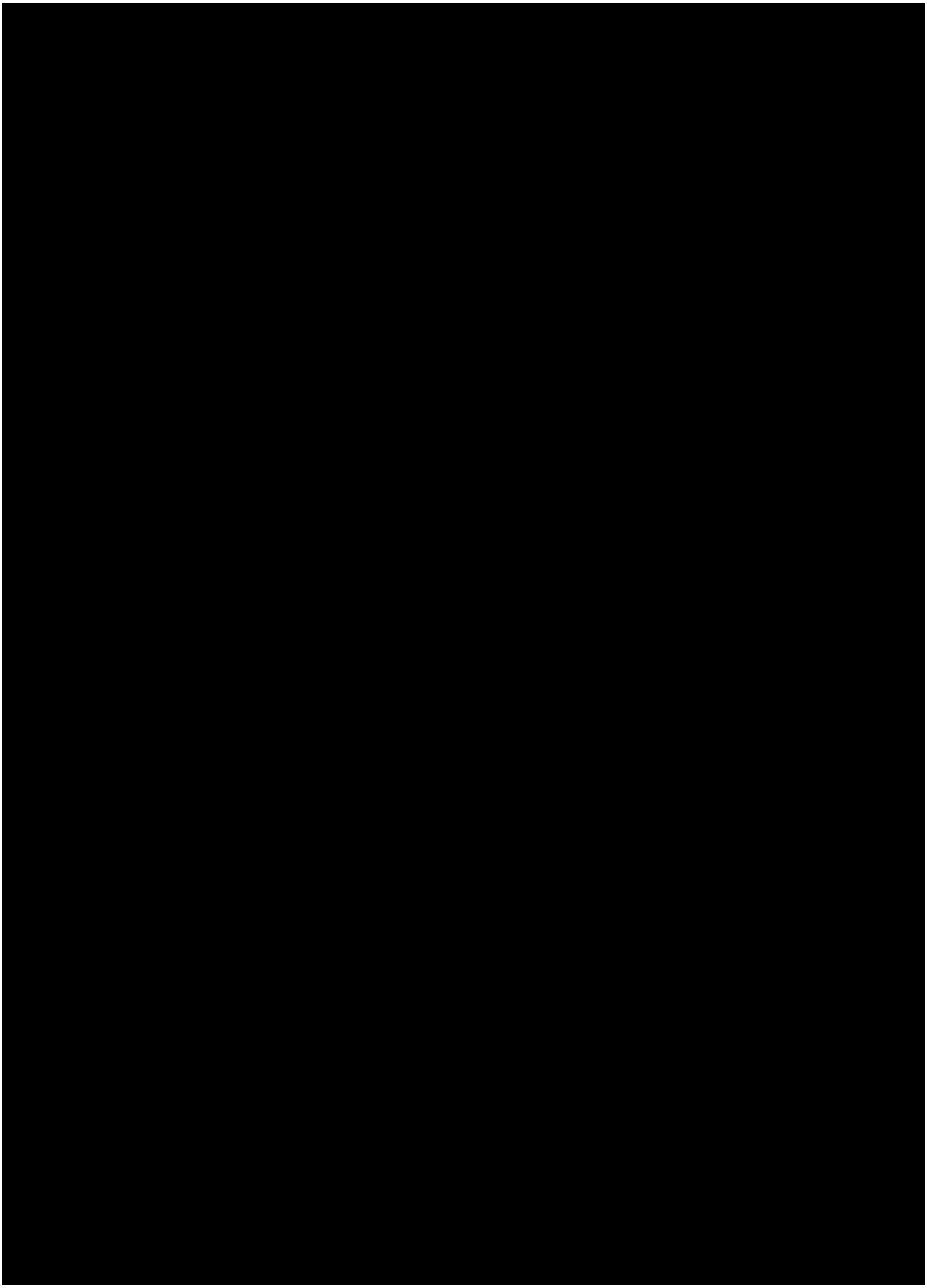


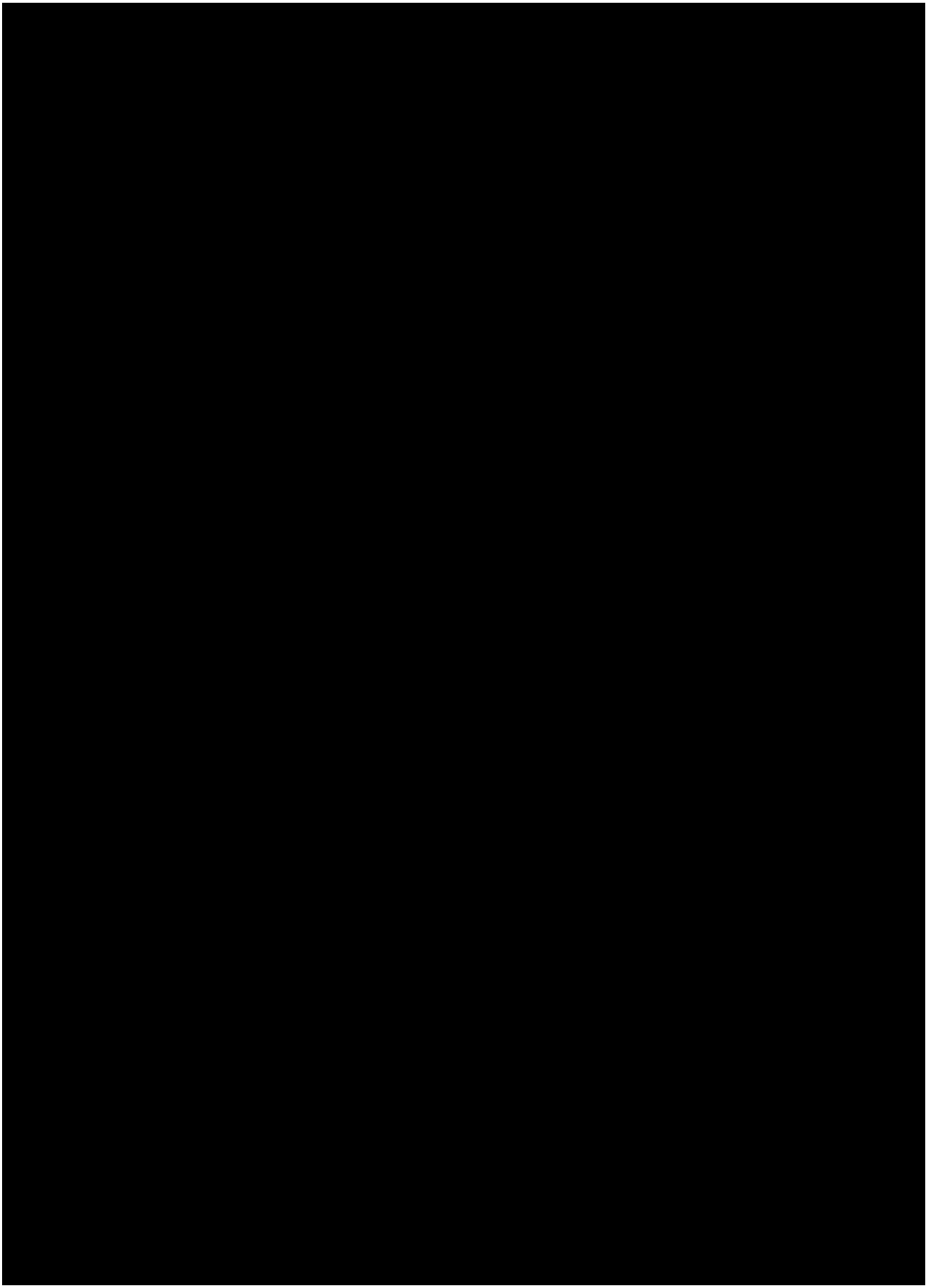


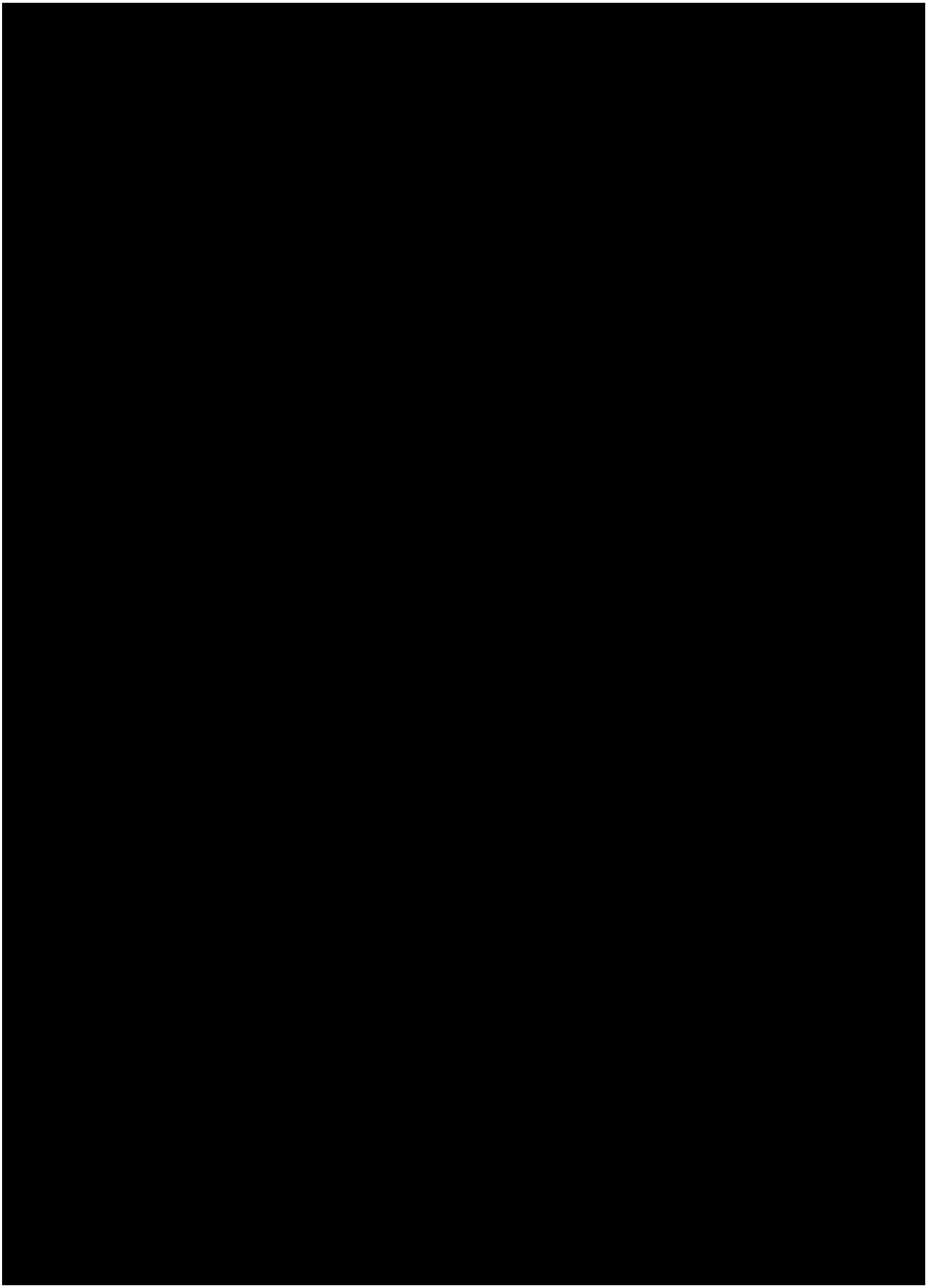


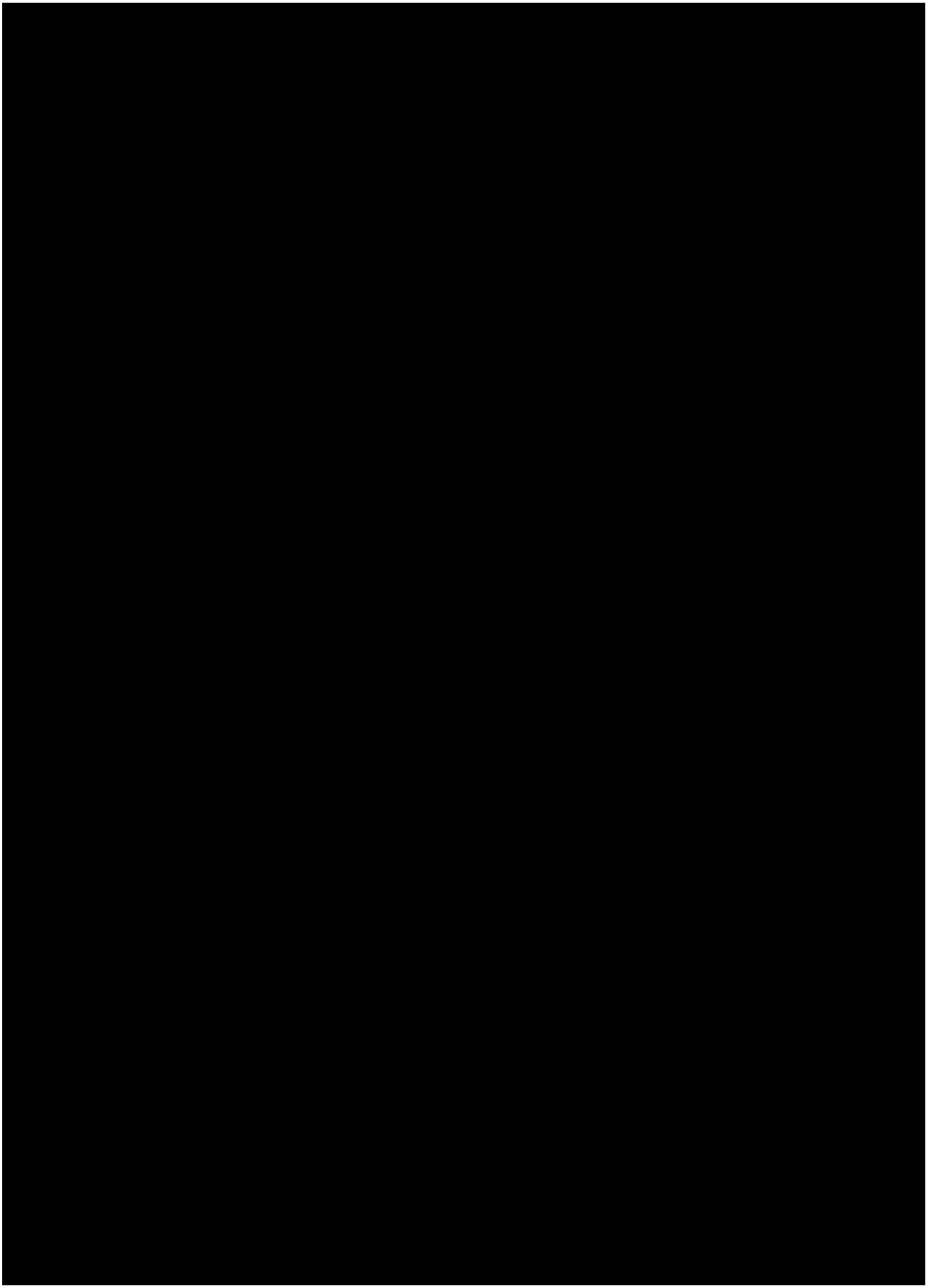


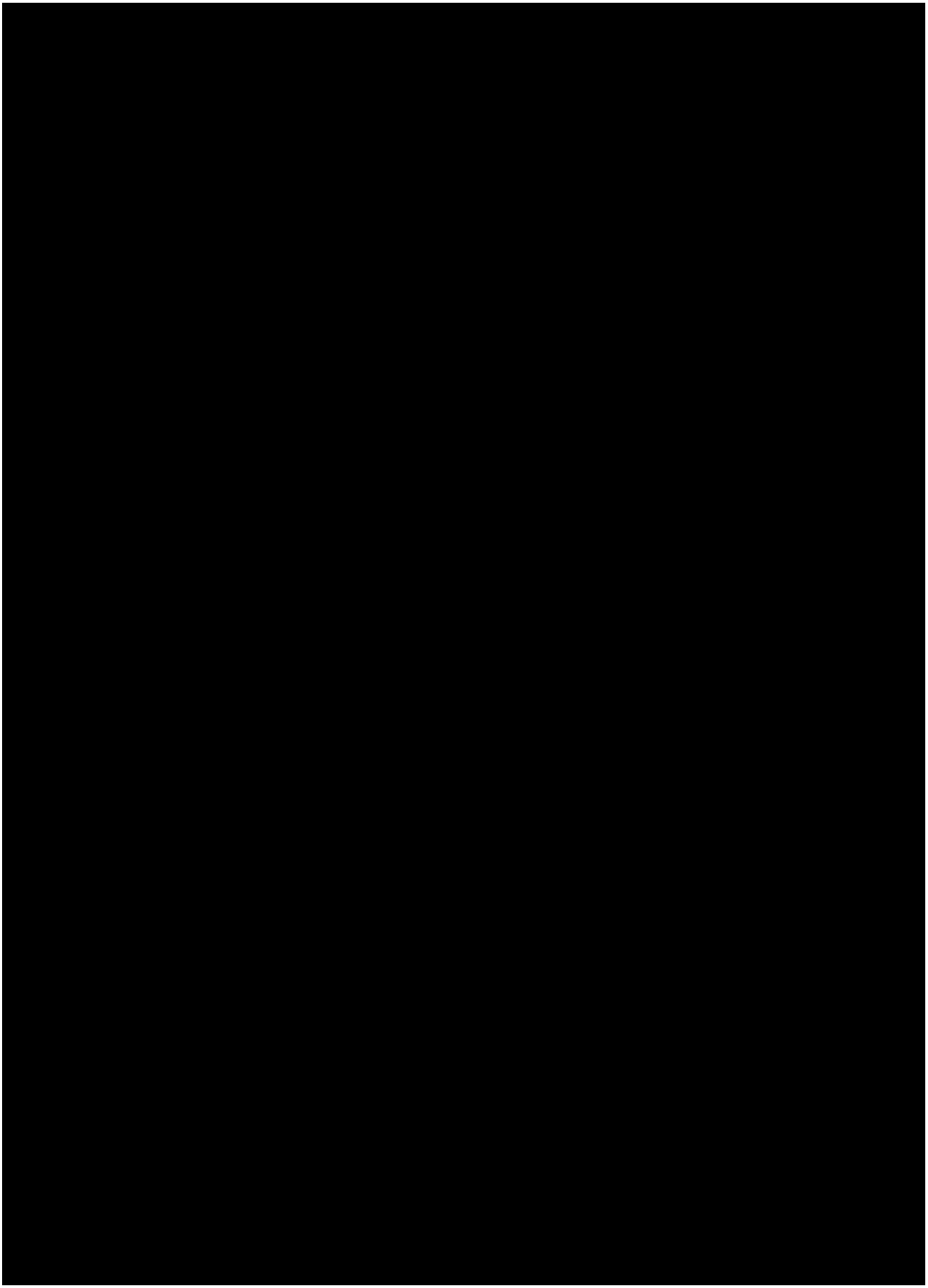


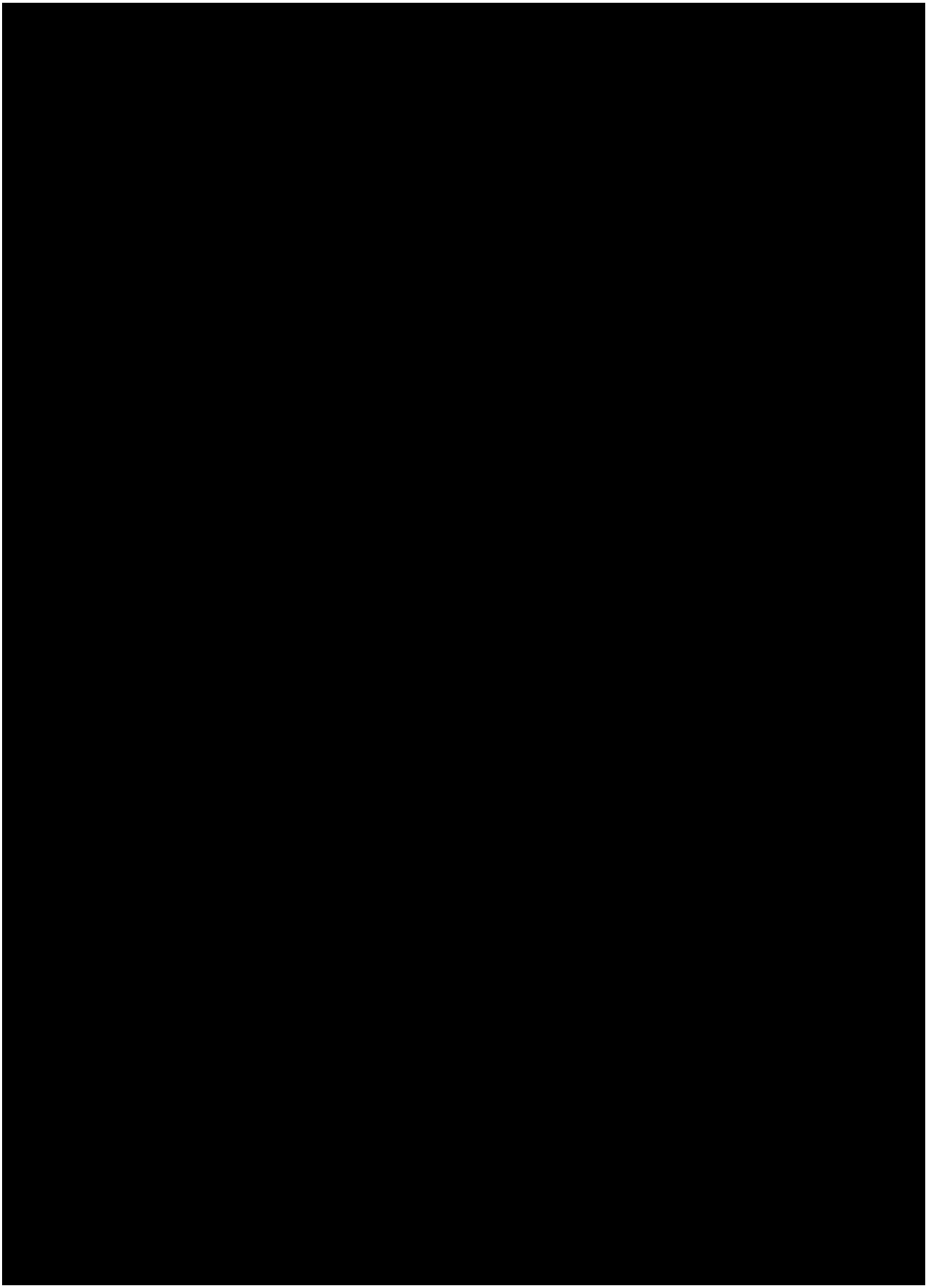


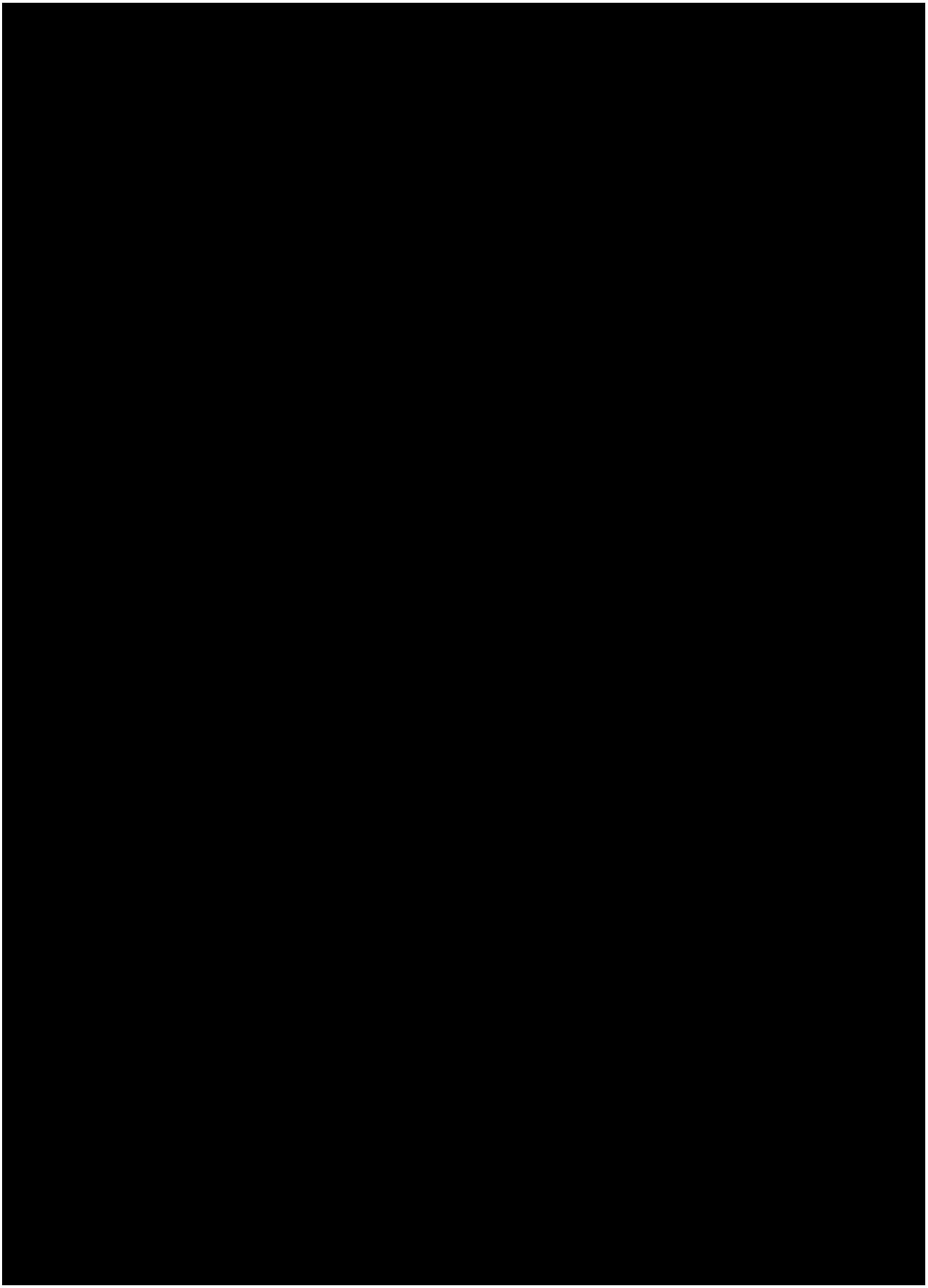


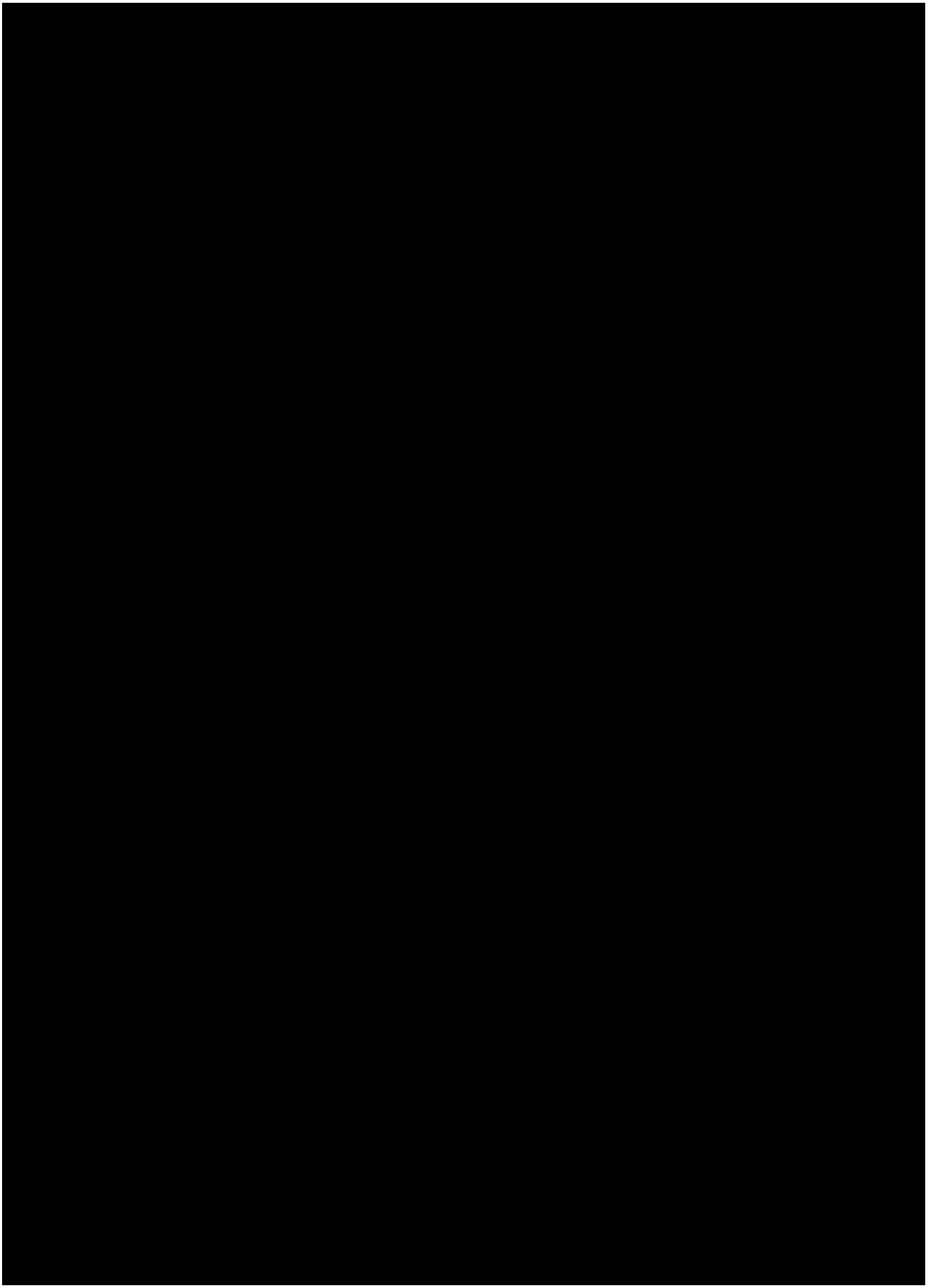


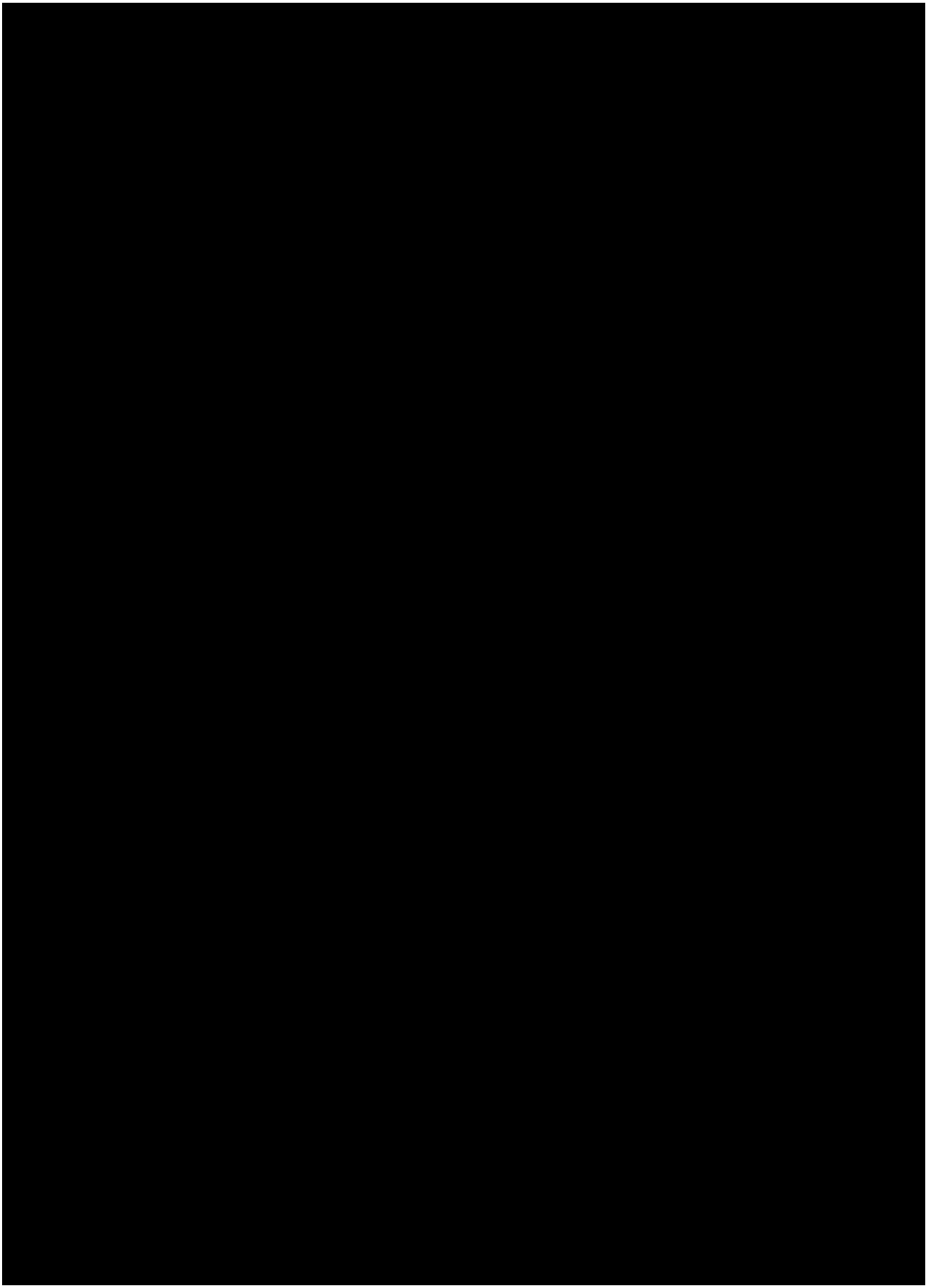


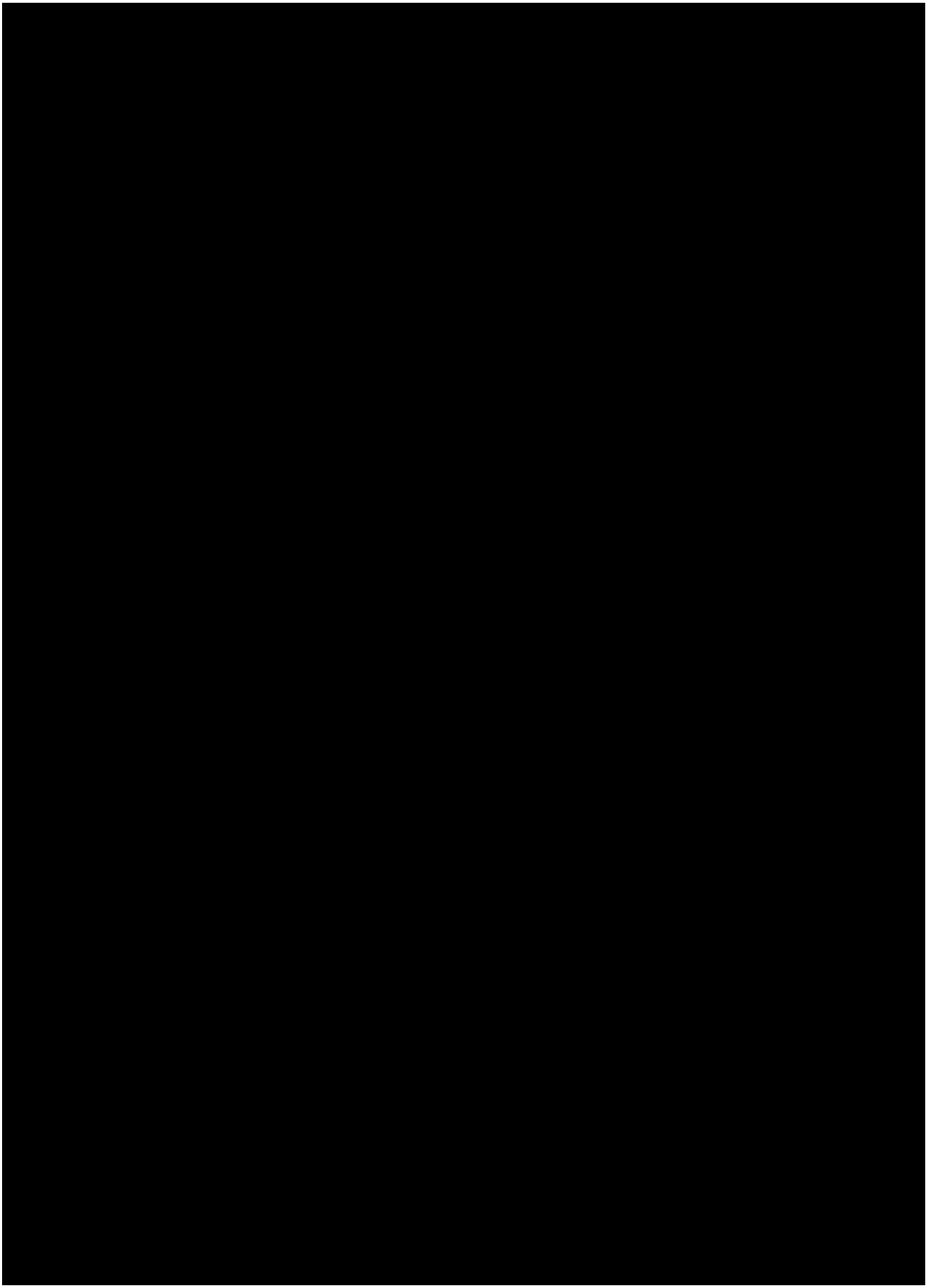


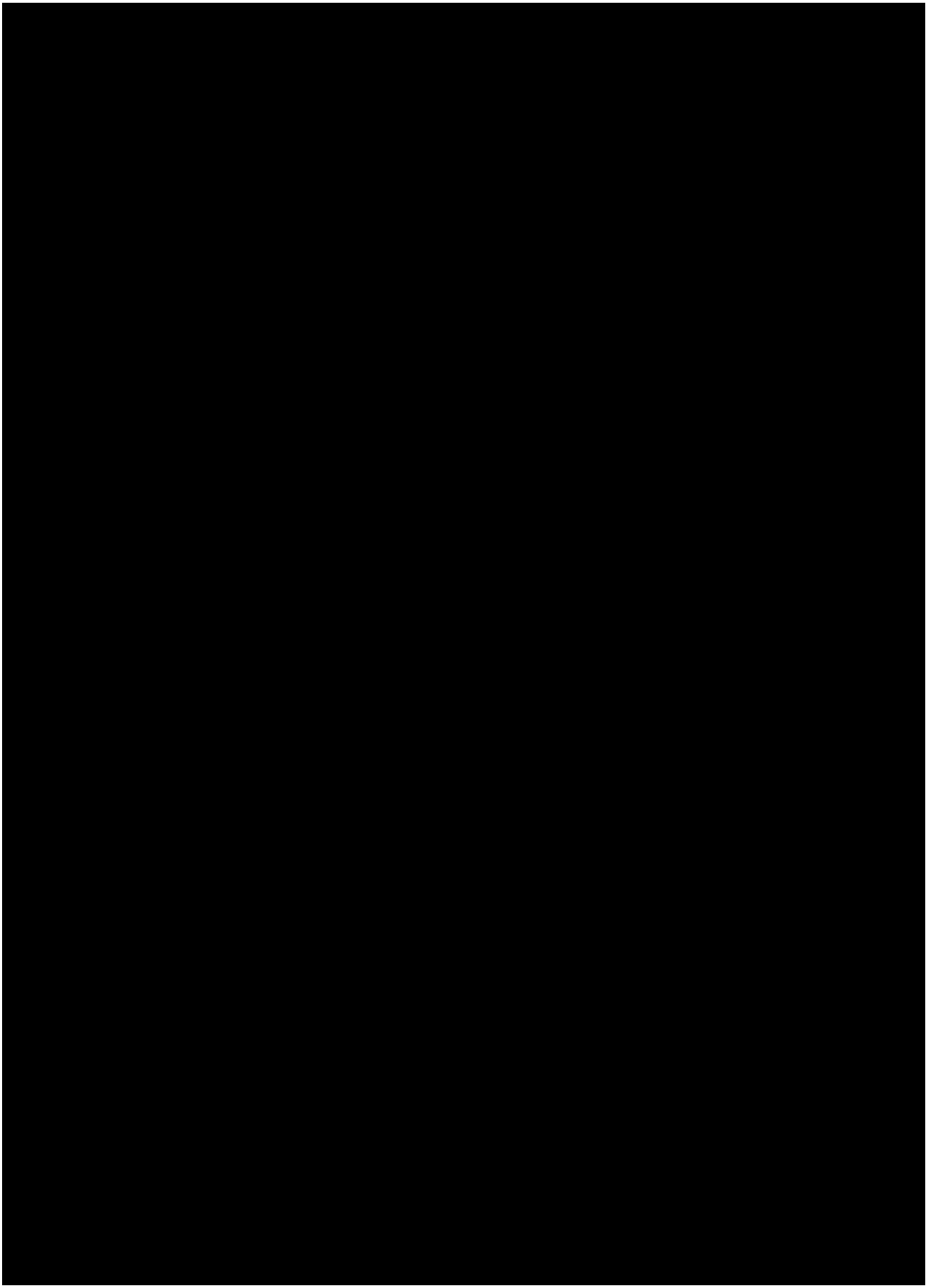


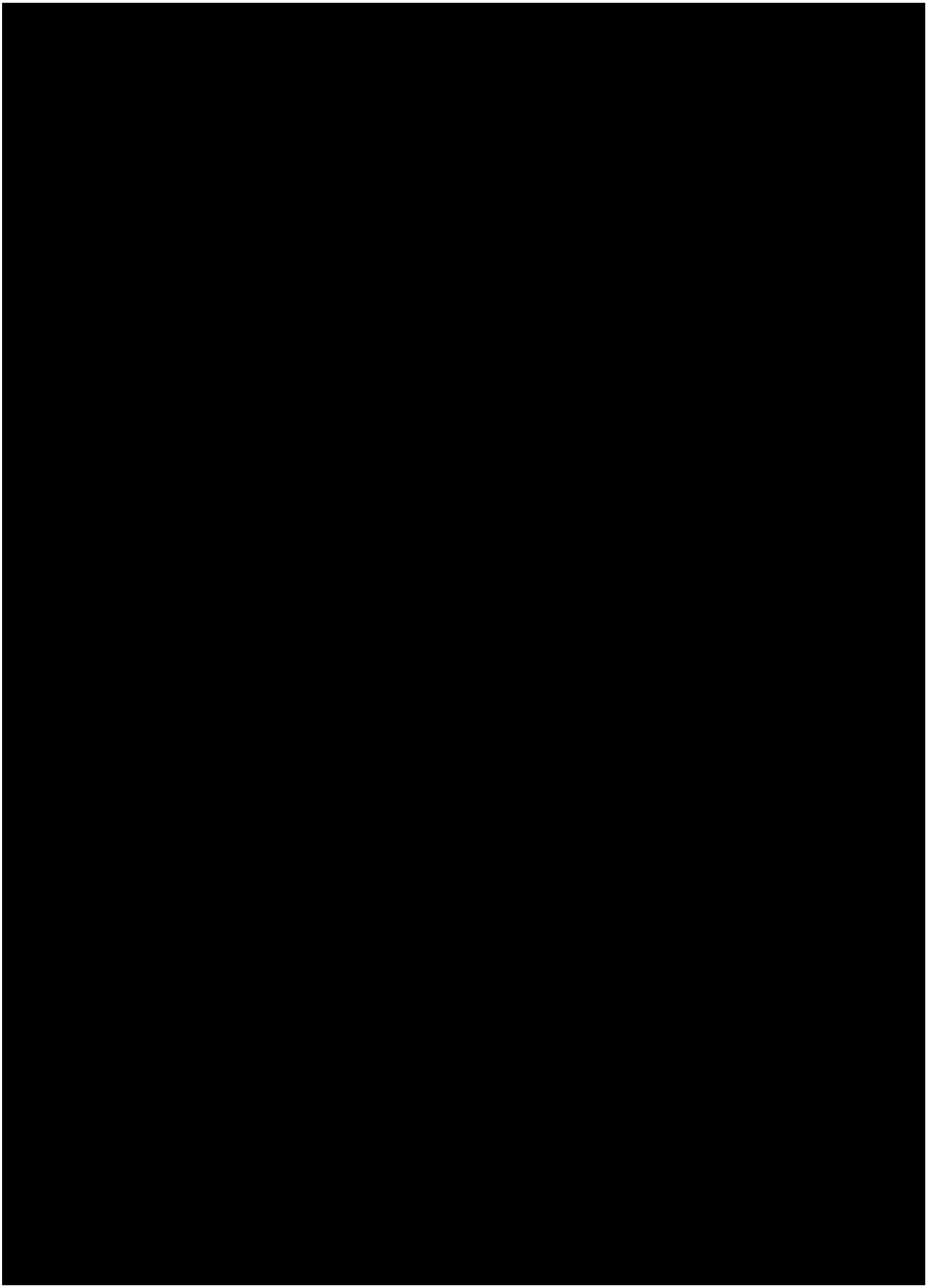


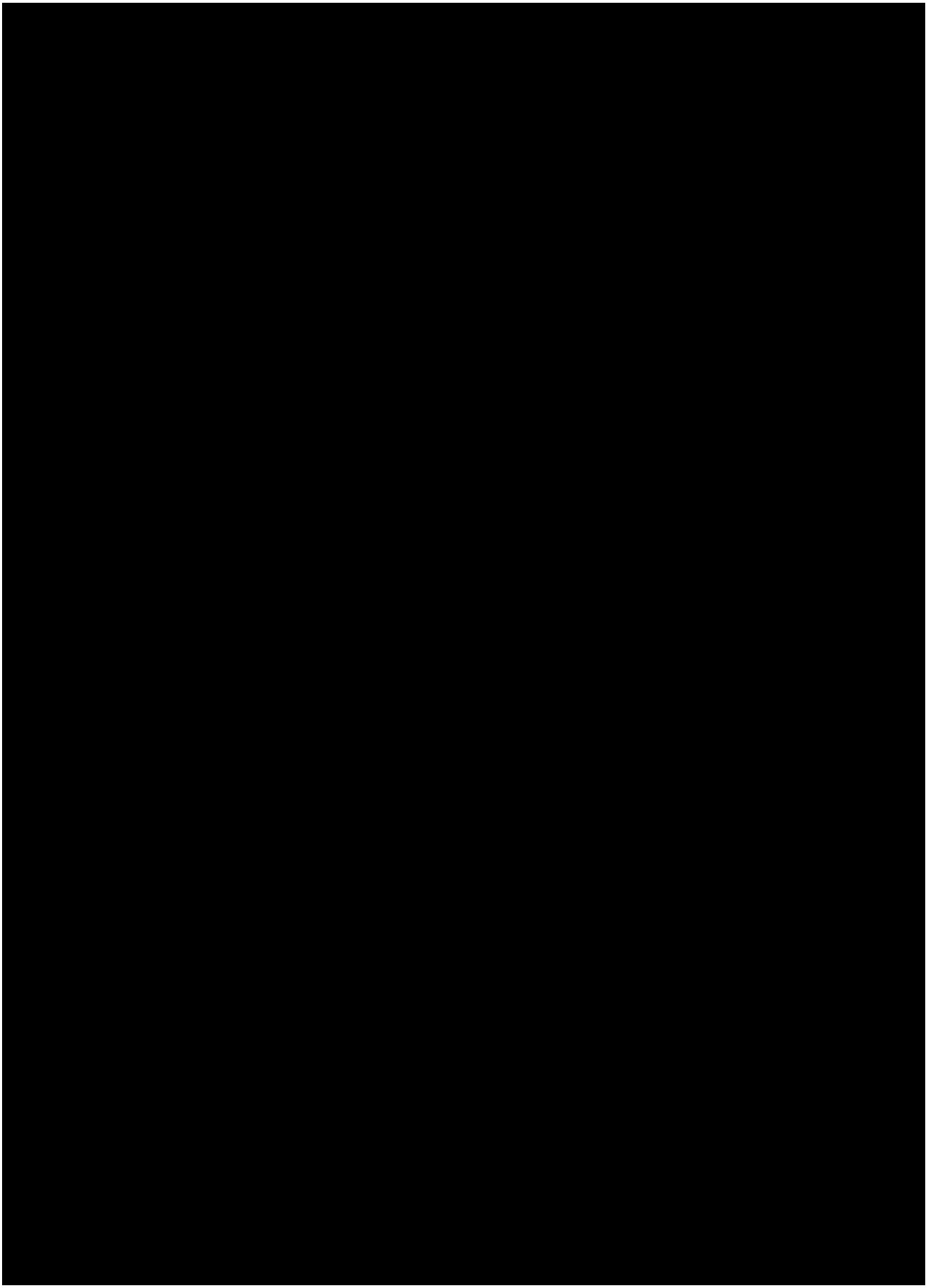


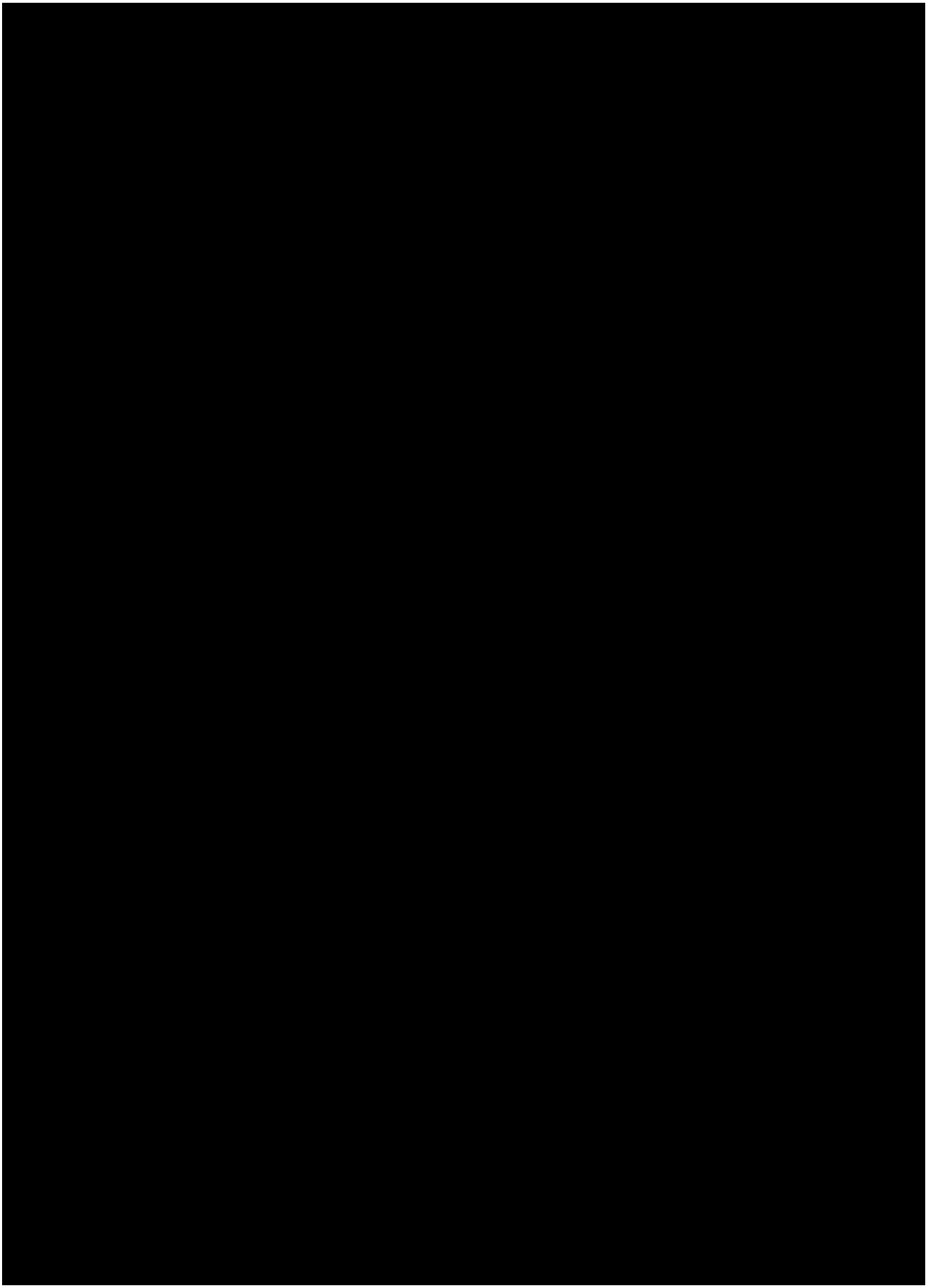


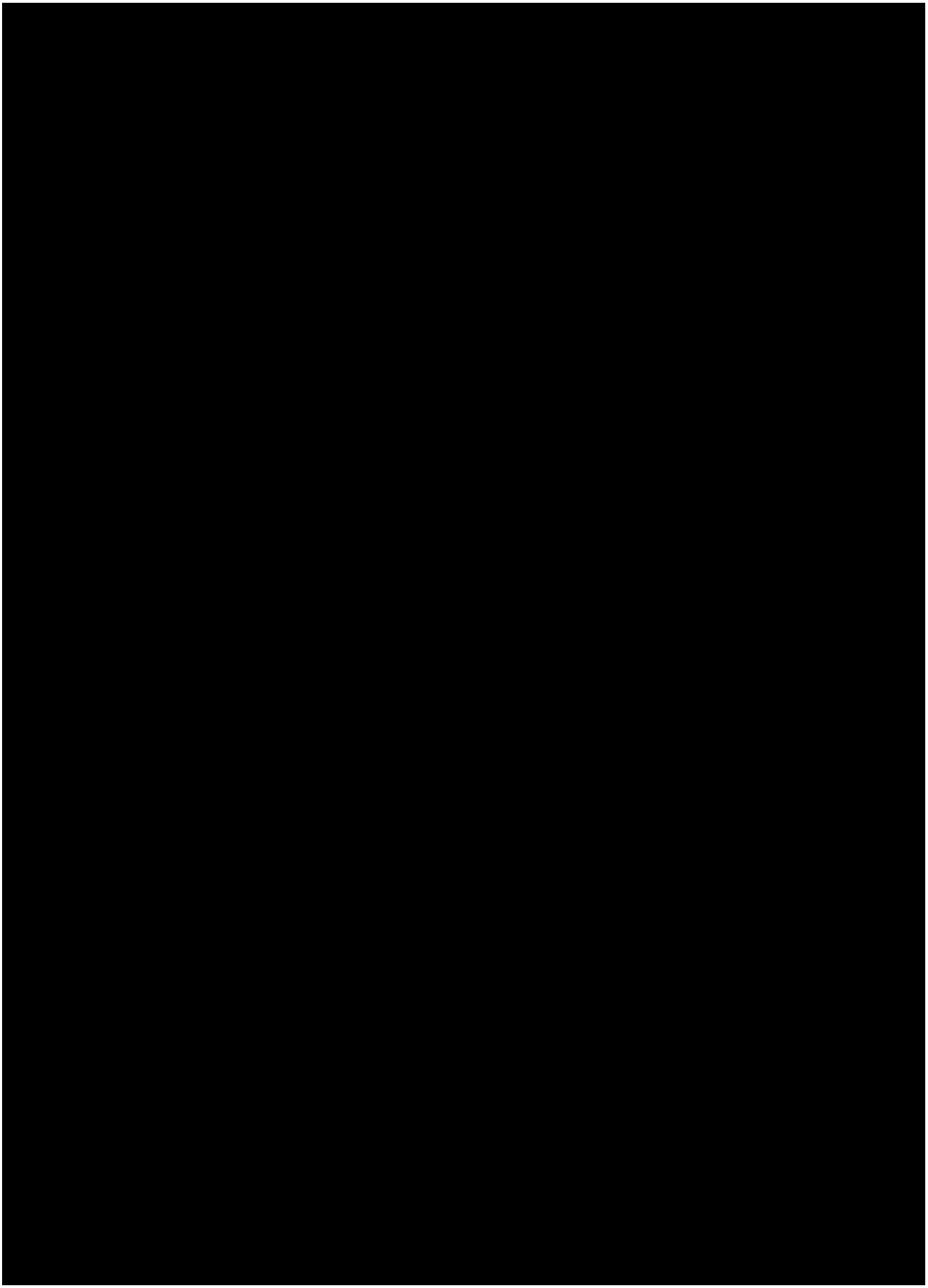


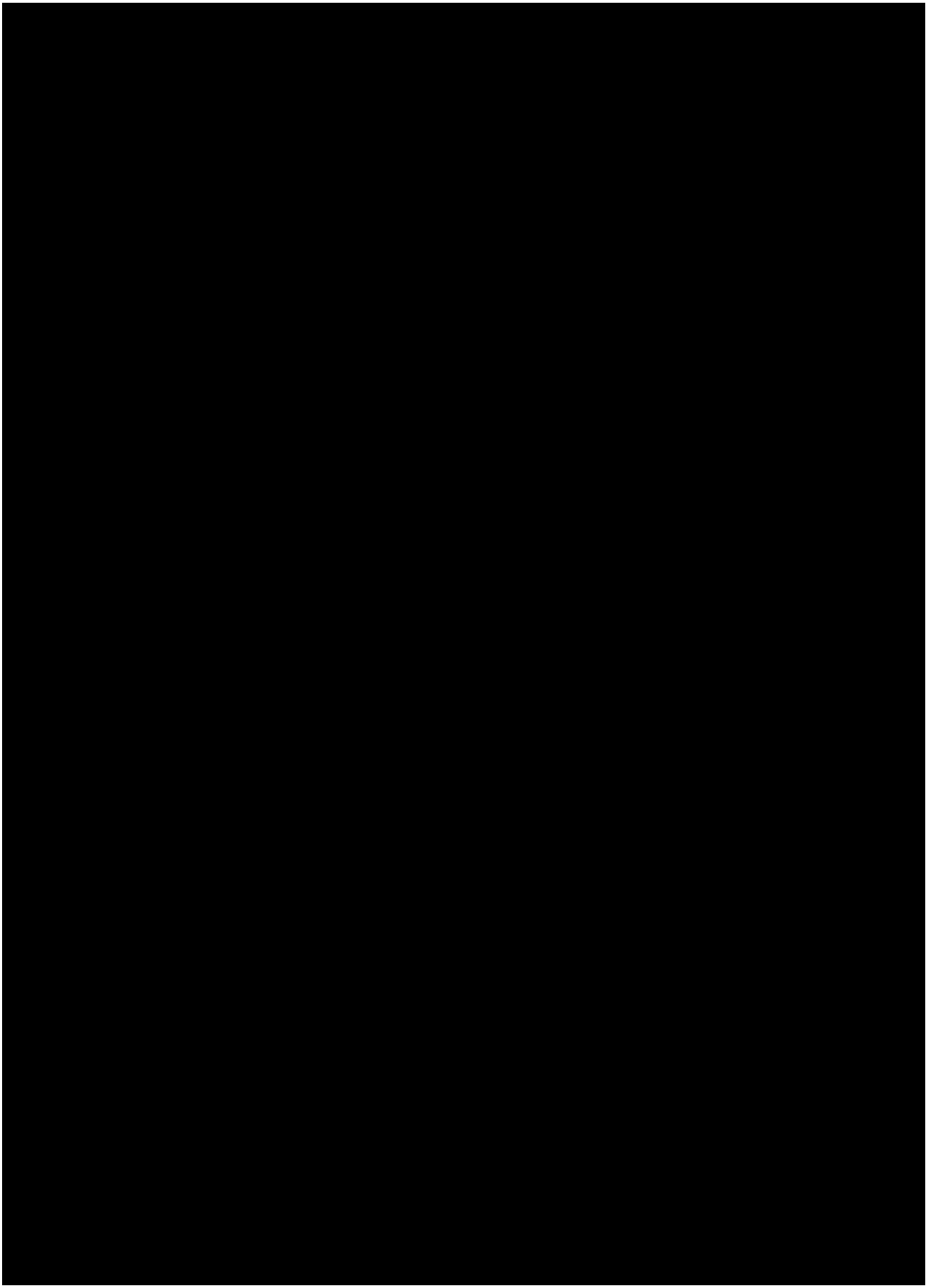


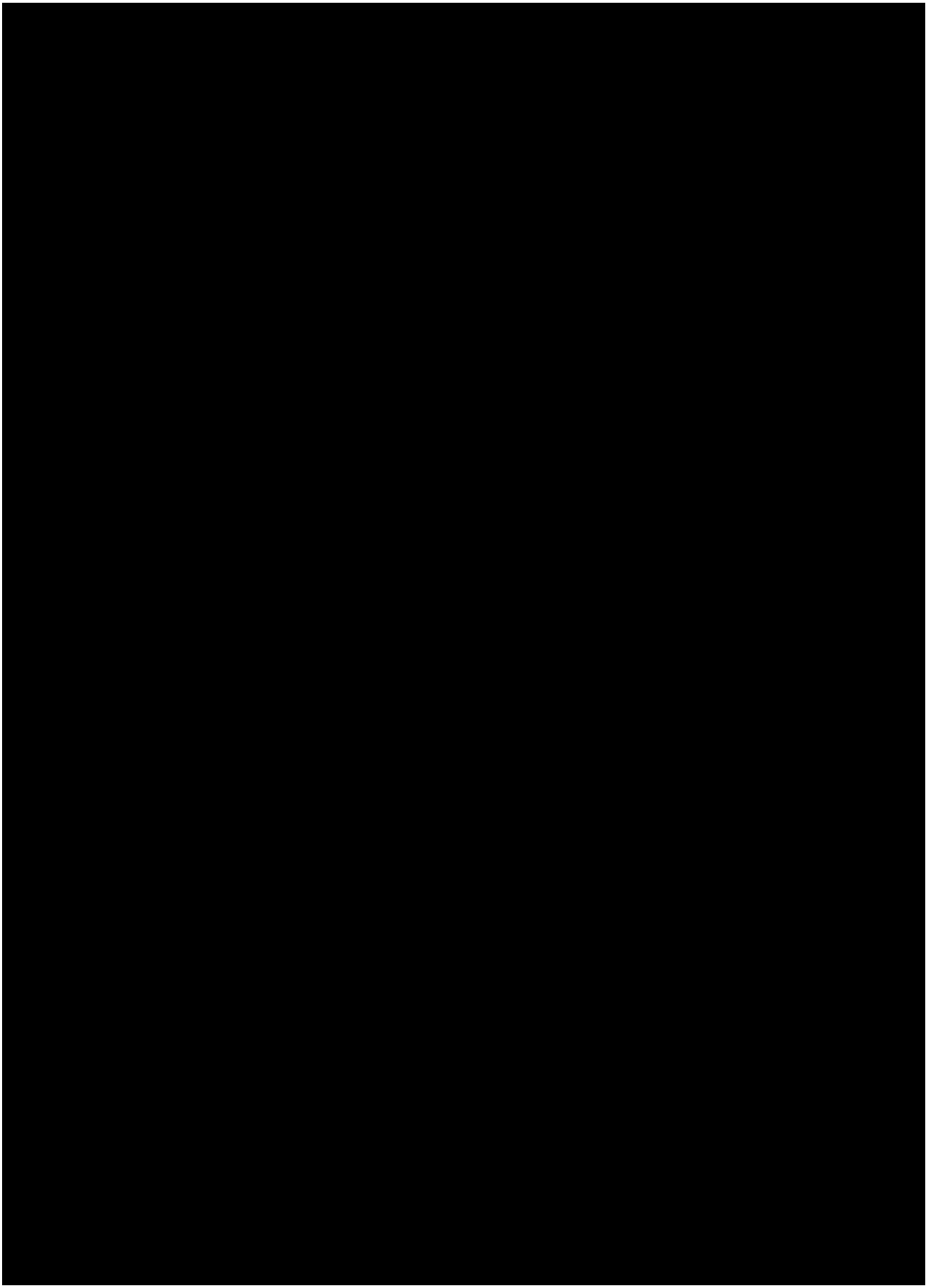


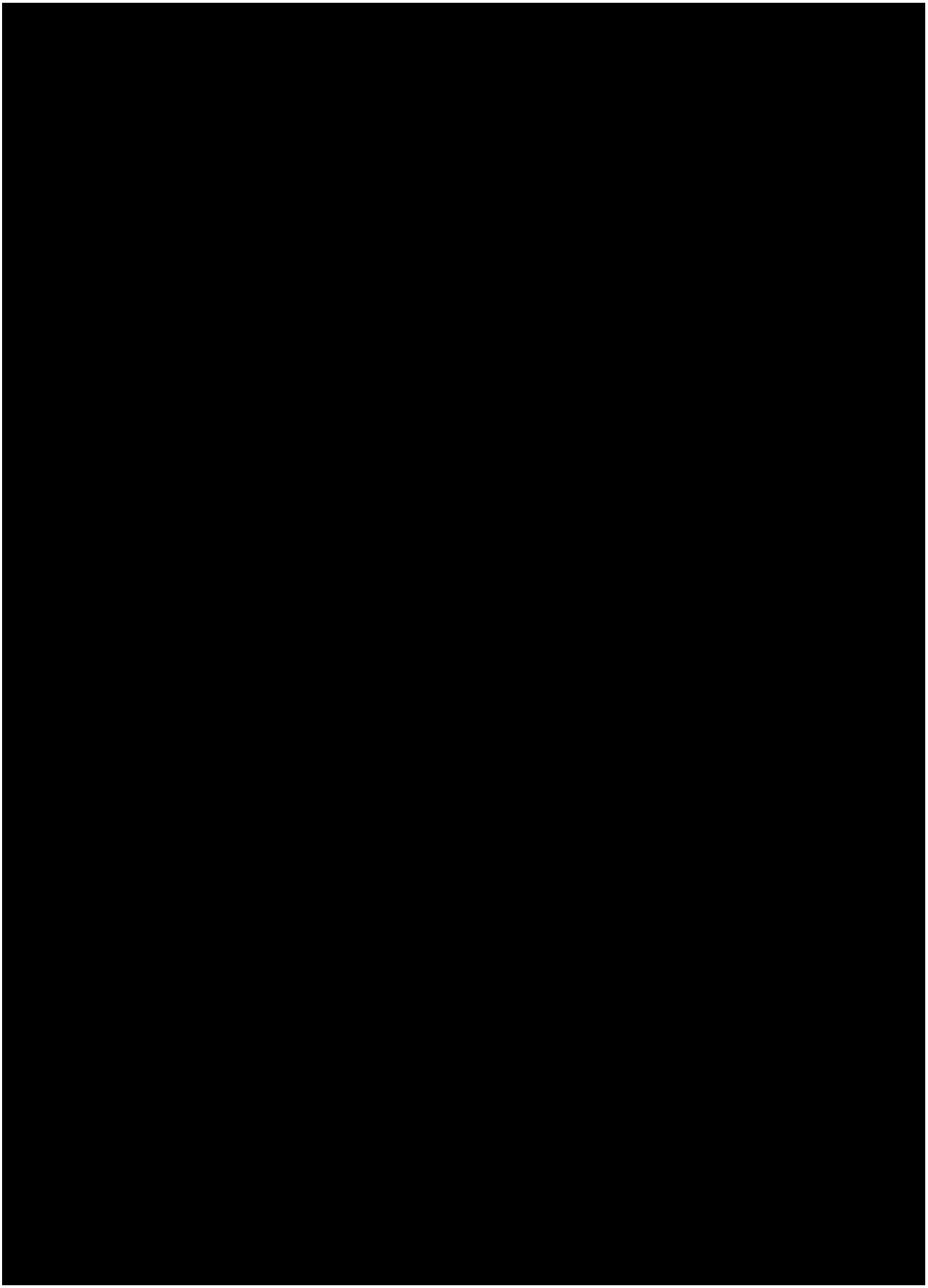


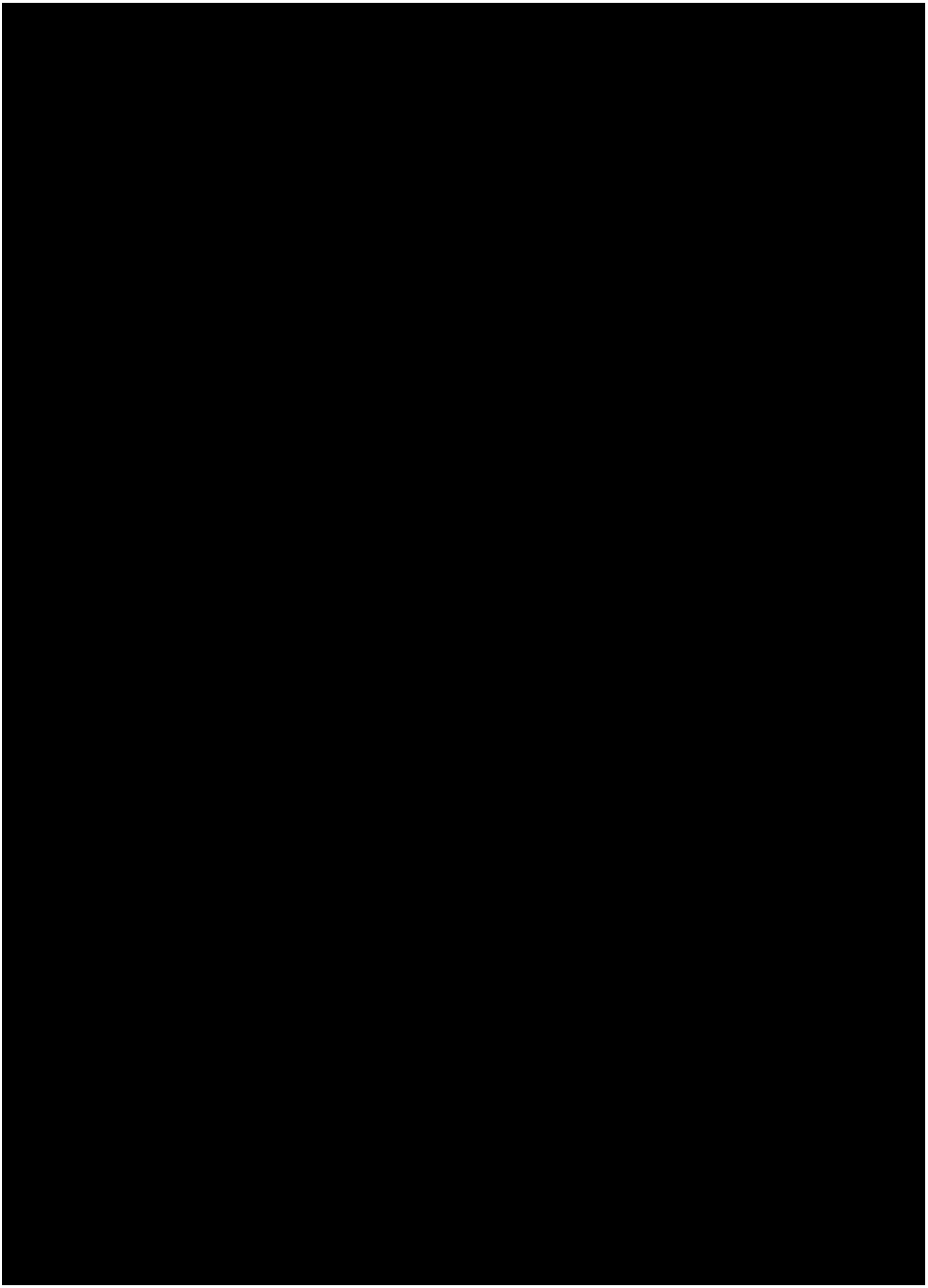


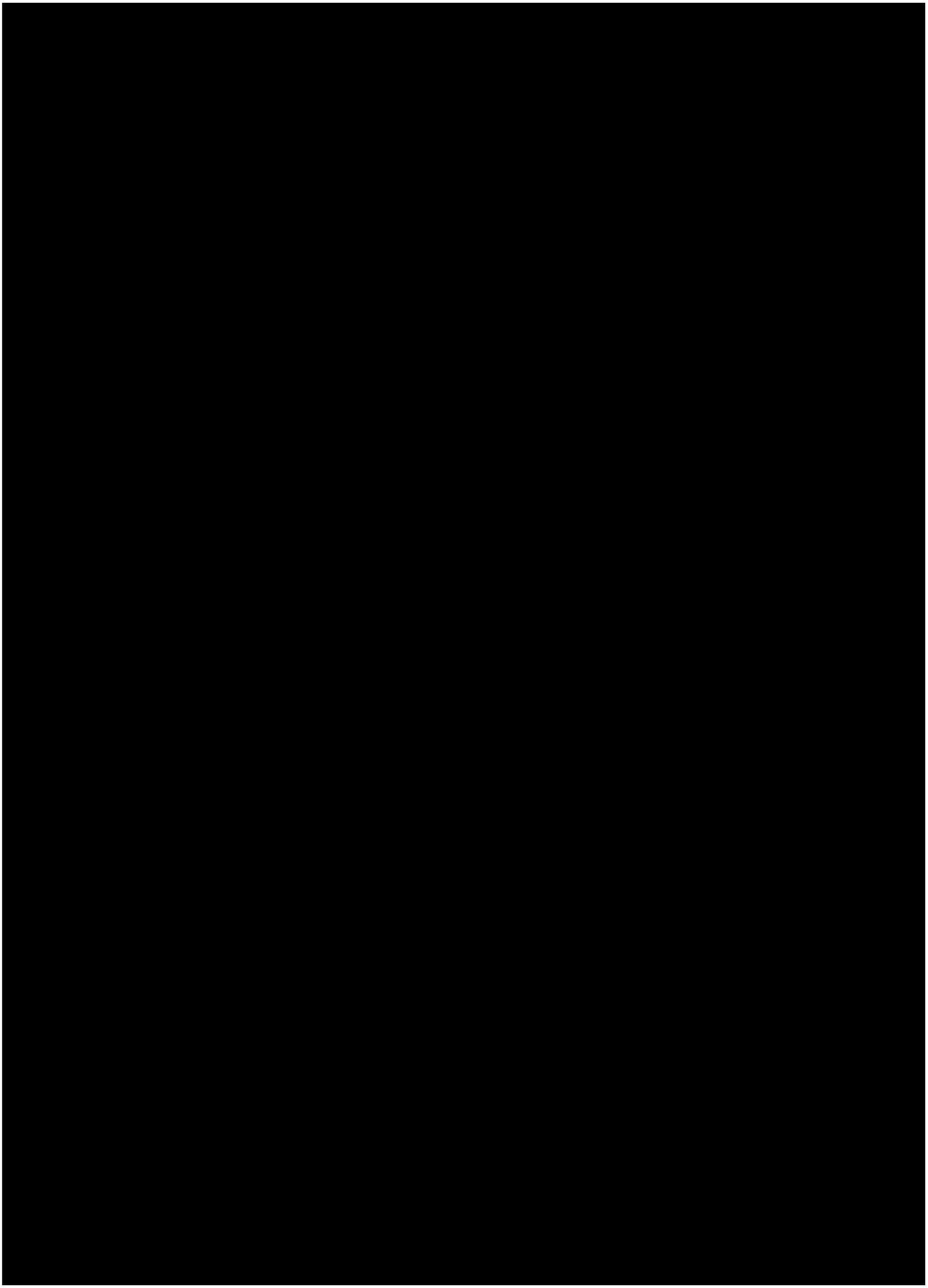


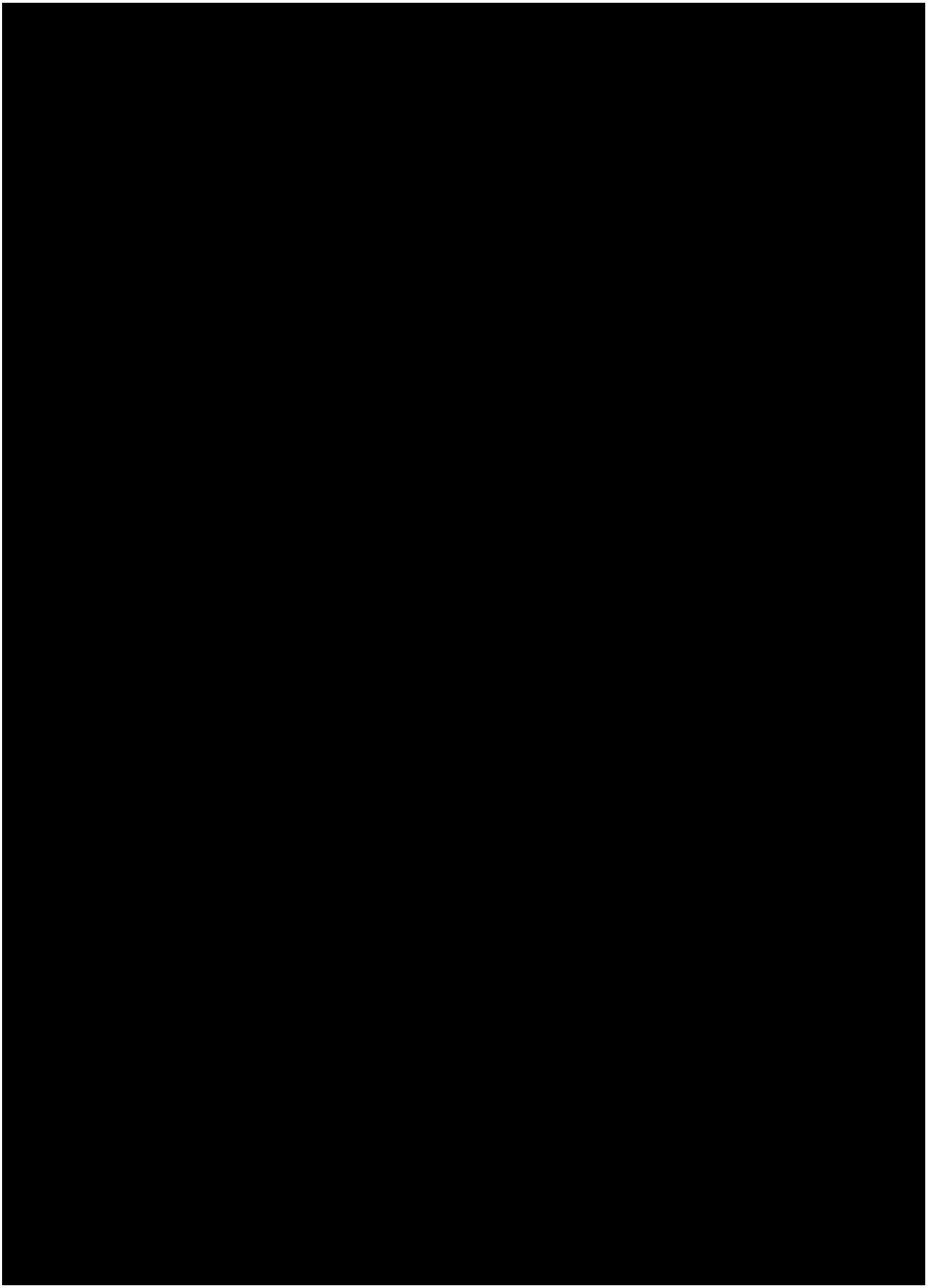


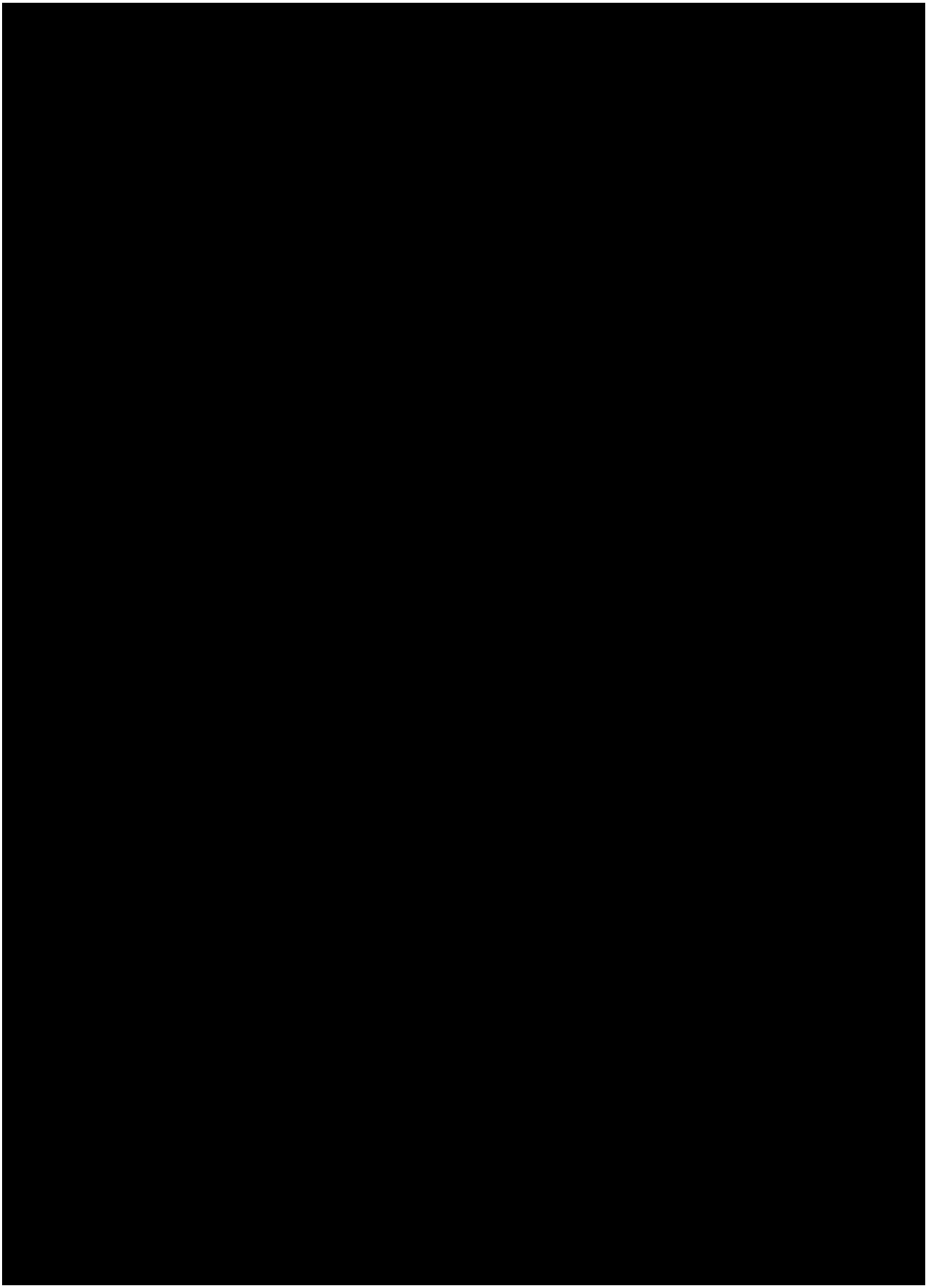


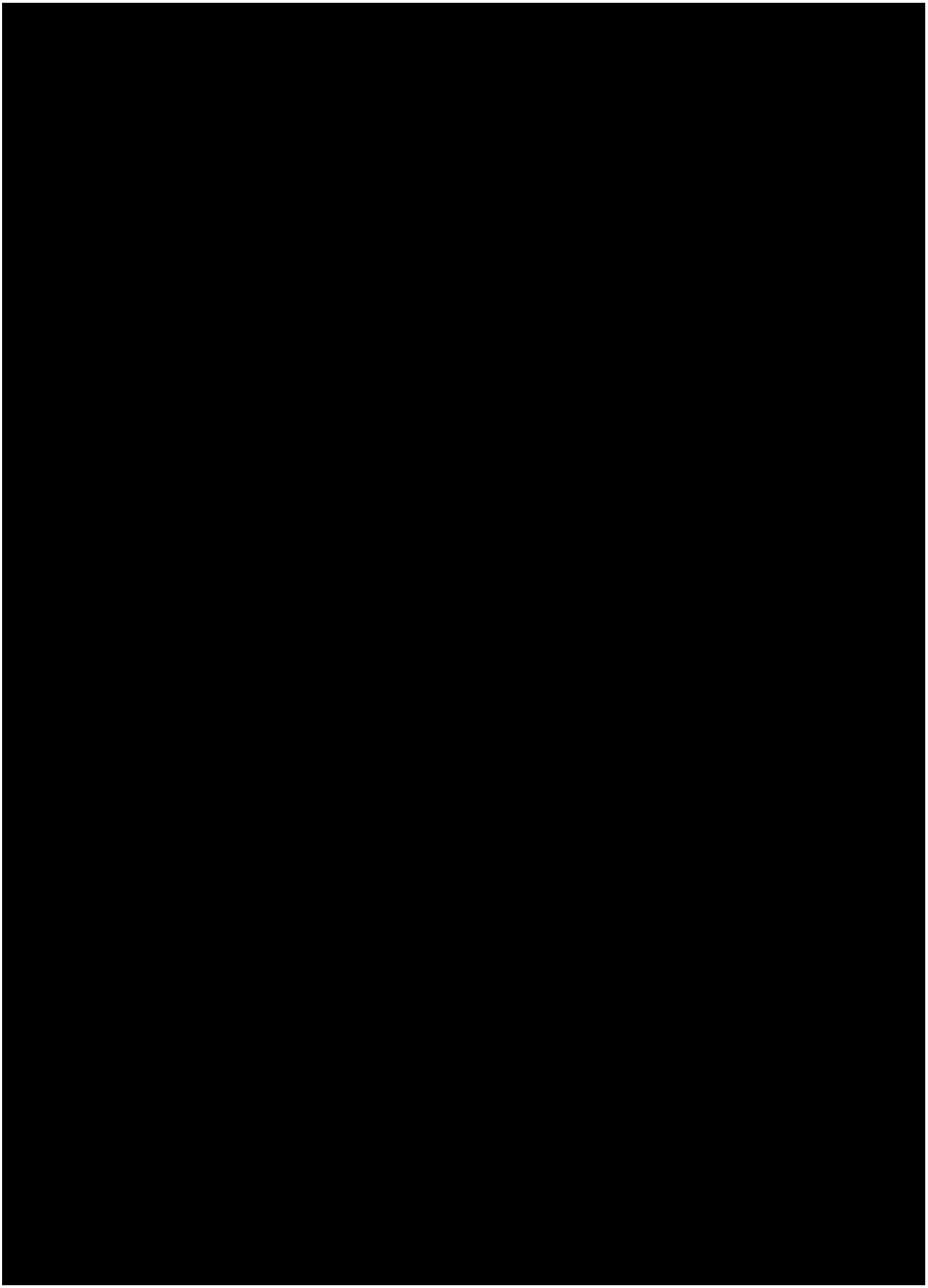


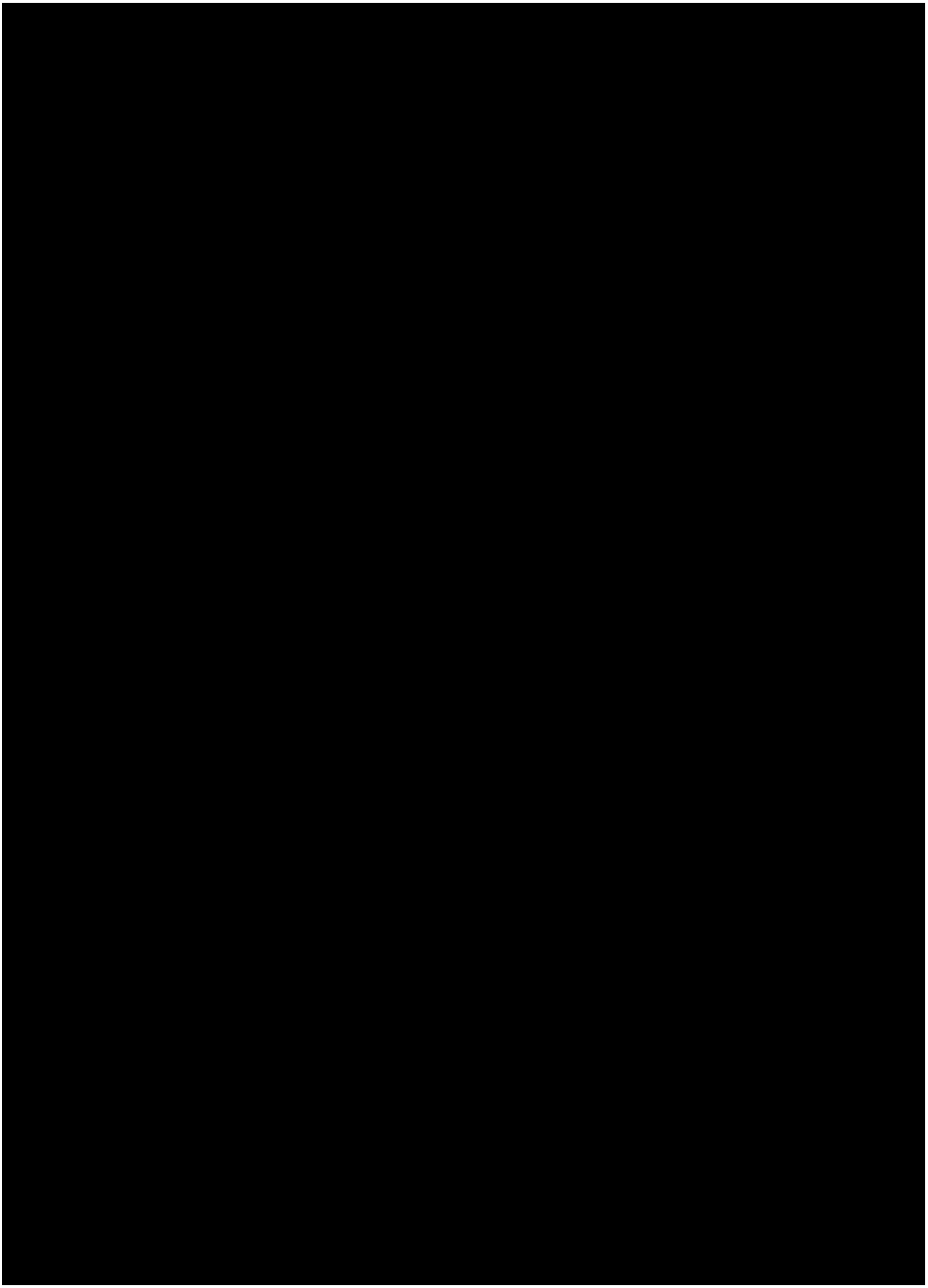


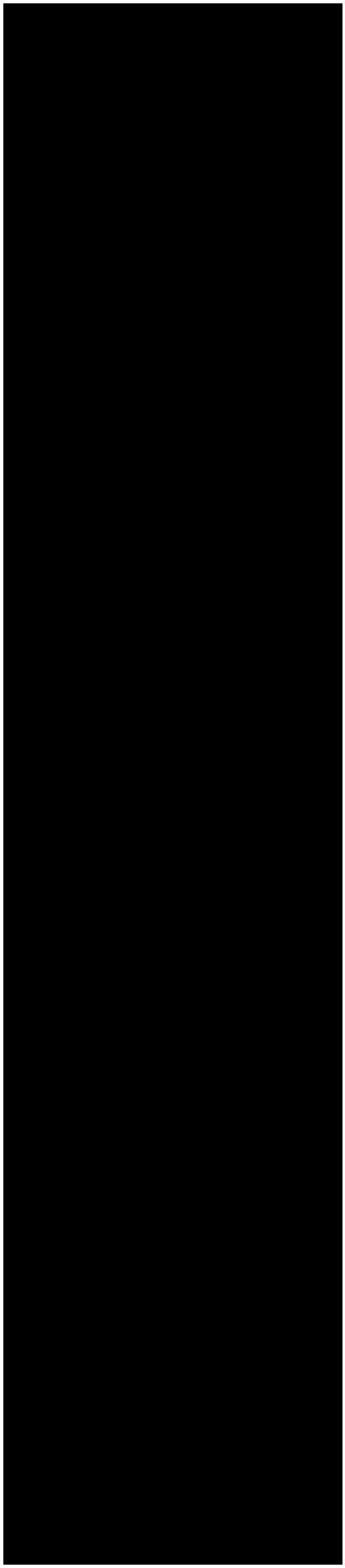










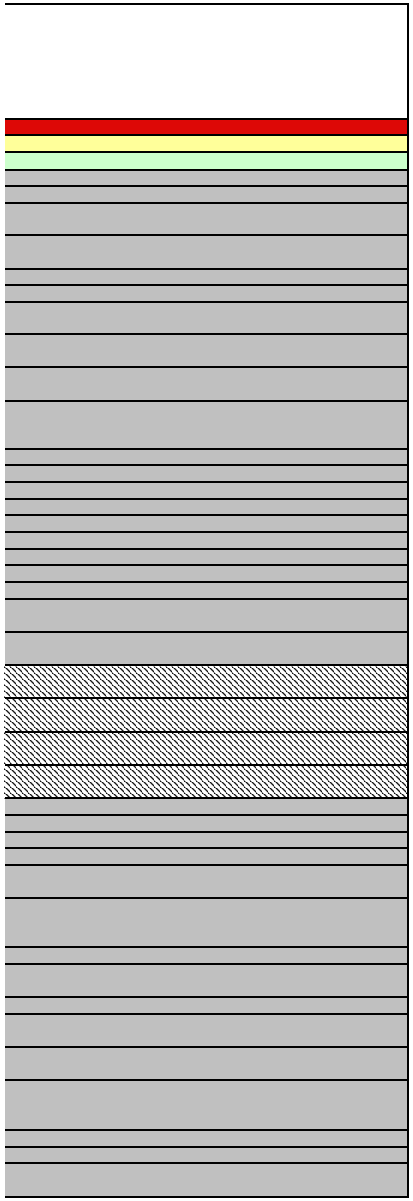


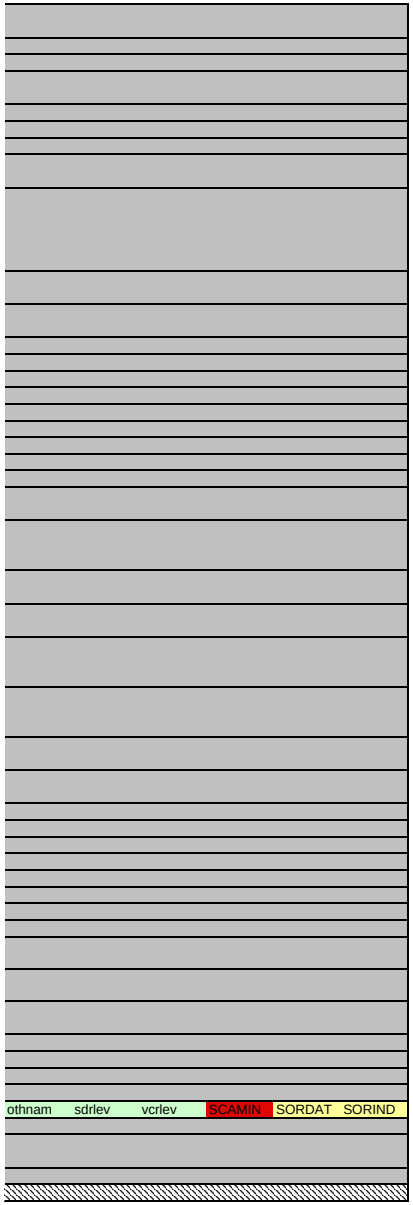
Pilot ENCs priority	Reference to the minimum content as described in the Encoding mandatory	Description of the objects according to the Encoding Guide	S-57 object	Unlocd	S-57_Attributes
			Mandatory		
			Conditional		
			Optional		
3		D.1.1 Canal (non-navigable at compilation scale)	CANALS(L, A)		OBJNAM NOBJNM SCAMIN SORDAT SORIND
3		D.1.2 Rivers (non-navigable at compilation scale)	RIVERS(L, A)		OBJNAM NOBJNM SCAMIN SORDAT SORIND
1		D.1.3 Water Area Name *used to show name of waterway, e.g. "Albertkanaal"*	SEAARE(P, A)		OBJNAM NOBJNM CATSEA SCAMIN SORDAT SORIND
1		D.1.4 Dredging Lake	DEPARE(A) depare(A)		DRVAL1 DRVAL2 QUASOU SORDAT SORIND DRVAL1 DRVAL2 eleva1 eleva2 wtwdis hunits SORDAT SORIND
3		D.1.5 Lake (non navigable at compilation scale)	LAKARE(A)		OBJNAM NOBJNM SCAMIN SORDAT SORIND
1	V1	D.2.1 Land Area	LNDARE(P, L, A)		OBJNAM NOBJNM SORDAT SORIND
2		D.2.2 Land Region *used to show name of location*	LNDRGN(P, A)		OBJNAM NOBJNM SCAMIN SORDAT SORIND
2		D.2.3 Natural Dunes or Ridges	SLOGRD(L, A) SLOTOP(L)		CATSLO NATSUR SCAMIN SORDAT SORIND CATSLO NATSUR SCAMIN SORDAT SORIND
2		D.2.4 Rock Wall	SLOTOP(L) CTNARE(A)		CATSLO NATSUR SCAMIN SORDAT SORIND INFORM SCAMIN SORDAT SORIND
1	*V1*	D.2.5 Shoreline *line where shore and water meet (EU: mean waer line, US: low water line)*	COALNE(L)		CATCOA SCAMIN SORDAT SORIND
1		D.3.1 Vegetation	VEGATN(P, A)		CATVEG CONVIS SCAMIN SORDAT SORIND
1		E.1.1 Built-up Areas	BUAARE(P, A)		OBJNAM NOBJNM CATBUA SCAMIN SORDAT SORIND
1		E.1.2 Buildings of Navigational Significance	BUISGL(P, A)		OBJNAM NOBJNM FUNCTN CONVIS SCAMIN SORDAT SORIND
2		E.1.3 International Boundaries & National Limits (Administration Area)	ADMARE(A)		JRSDTN NATION OBJNAM NOBJNM SCAMIN SORDAT SORIND
2		E.2.1 Airport	AIRARE(P, A)		CATAIR OBJNAM NOBJNM SCAMIN SORDAT SORIND
2		E.2.2 Railway	RAILWY(L)		OBJNAM NOBJNM INFORM NINFOM SCAMIN SORDAT SORIND
2		E.2.3 Road	ROADWY(L, A)		CATROD OBJNAM NOBJNM NATCON SCAMIN SORDAT SORIND
1		E.3.1 Silo / Storage Tank	SILTNK(P, A)		PRODCT CATSIL NOBJNM NATCON INFORM SCAMIN SORDAT SORIND
1		F.1.1 Conspicuous Landmark	LNDMRK(P, A)		CONVIS CATLMK OBJNAM NOBJNM FUNCTN SCAMIN SORDAT SORIND
1	V2 V6	G.1.1 Bascule Bridge	bridge(A) C_AGGR()	1	CATBRG = 5 VERCCL VERCOP wtwdis hunits SCAMIN verdat unlocd INFORM PICREP SORDAT SORIND HORCLR OBJNAM NOBJNM TXTDSC SORDAT SORIND
1	V2 V6	G.1.2 Bridges with Bridge Arches	bridge(A) C_AGGR()	1	CATBRG = 1 VERCCL wtwdis hunits SCAMIN verdat unlocd PICREP SORDAT SORIND OBJNAM NOBJNM TXTDSC SORDAT SORIND
1	V2 V6	G.1.3 Fixed Bridge	bridge(A) C_AGGR()	1	CATBRG = 1 VERCCL wtwdis hunits SCAMIN verdat unlocd INFORM PICREP SORDAT SORIND HORCLR OBJNAM NOBJNM TXTDSC SORDAT SORIND
1	V2 V6	G.1.4 Lift Bridge	bridge(A) C_AGGR()	1	CATBRG = 4 VERCCL VERCOP wtwdis hunits SCAMIN verdat unlocd INFORM PICREP SORDAT SORIND HORCLR OBJNAM NOBJNM TXTDSC SORDAT SORIND
1	V2 V6	G.1.5 Suspension Bridge	bridge(A) C_AGGR()	1	CATBRG = 12 VERCCL wtwdis hunits SCAMIN verdat unlocd INFORM PICREP SORDAT SORIND HORCLR OBJNAM NOBJNM TXTDSC SORDAT SORIND
1	V2 V6	G.1.6 Swing Bridge	bridge(A) C_AGGR()	1	CATBRG = 3 VERCCL wtwdis hunits SCAMIN verdat unlocd INFORM PICREP SORDAT SORIND HORCLR OBJNAM NOBJNM TXTDSC SORDAT SORIND
2		G.1.7 Tunnel	TUNNEL(L, A)		BURDEP HORCLR VERCLR OBJNAM NOBJNM TXTDSC SCAMIN SORDAT SORIND
1	V6	G.1.8 Overhead Cable	cblohd(L)	1	VERCLR catcbl verdat wtwdis hunits SCAMIN unlocd OBJNAM NOBJNM INFORM NINFOM SCAMIN SORDAT SORIND
1	V6	G.1.9 Overhead Pipe	pipohd(L)	1	VERCLR CATPIP PRODCT verdat wtwdis hunits SCAMIN unlocd OBJNAM NOBJNM INFORM NINFOM SCAMIN SORDAT SORIND
1		G.1.10 Pylons, Piers, and Bridge, Cable, Pipeline Support	PYLONS(P, A)		CATPYL WATLEV SCAMIN SORDAT SORIND
1	V2 V6	G.1.11 Foot Bridge / Catwalk	bridge(A) C_AGGR()	1	CATBRG = 9 VERCCL VERCOP wtwdis hunits SCAMIN verdat unlocd INFORM PICREP SORDAT SORIND HORCLR OBJNAM NOBJNM TXTDSC SORDAT SORIND
1		G.2.1 Dyke / Levee *not to be used as 'shoreline'. Shorelines should be coded by COALNE or SLCONS*	DYKCON(L, A) SLOTOP(L)		HEIGHT INFORM SCAMIN SORDAT SORIND CATSLO NATSUR SCAMIN SORDAT SORIND
2	?	G.2.2 Fence / Floodwall	FNCLNE(L)		CATFNC TXTDSC OBJNAM NOBJNM INFORM NINFOM SCAMIN SORDAT SORIND
1	V5/6	G.2.3 Groin	SLCONS(L, A) LNDARE(A)		CATSLC NATCON watlev OBJNAM NOBJNM SCAMIN SORDAT SORIND OBJNAM NOBJNM SORDAT SORIND
1		G.2.4 Ground Sill	SLCONS(L, A)		CATSLC NATCON WATLEV OBJNAM NOBJNM INFORM SCAMIN SORDAT SORIND
1	V1	G.2.5 Revetment (Loose Stone)	slcons(L, A) RESARE(A)		CATSLC SCAMIN NATCON watlev SCAMIN SORDAT SORIND RESTRN SCAMIN SORDAT SORIND
1	?	G.2.6 Revetment (Concrete Mattress)	slcons(L, A) RESARE(A)		CATSLC SCAMIN NATCON watlev SCAMIN SORDAT SORIND RESTRN SCAMIN SORDAT SORIND
1	V5/6	G.2.7 Training Wall	SLCONS(L, A) LNDARE(A) DEPARE(A)		catslc NATCON watlev OBJNAM NOBJNM SCAMIN SORDAT SORIND OBJNAM NOBJNM SORDAT SORIND DRVAL1 DRVAL2 QUASOU SORDAT SORIND
1	V2	G.3.1 Boat Ramp	SLCONS(P)		CATSLC NATCON WATLEV STATUS OBJNAM NOBJNM SCAMIN SORDAT SORIND
3		G.3.2 Bunker / Fueling Station	bunsta(P, A)	1	catbun OBJNAM NOBJNM bunves INFORM NINFOM TXTDSC unlocd SCAMIN SORDAT SORIND
1	V2 V6	G.3.3 Conveyor	CONVYR(L,A) convyr(L,A)		CATCON PRODCT OBJNAM NOBJNM VERCLR SCAMIN SORDAT SORIND CATCON PRODCT OBJNAM NOBJNM VERCLR verdat SCAMIN SORDAT SORIND

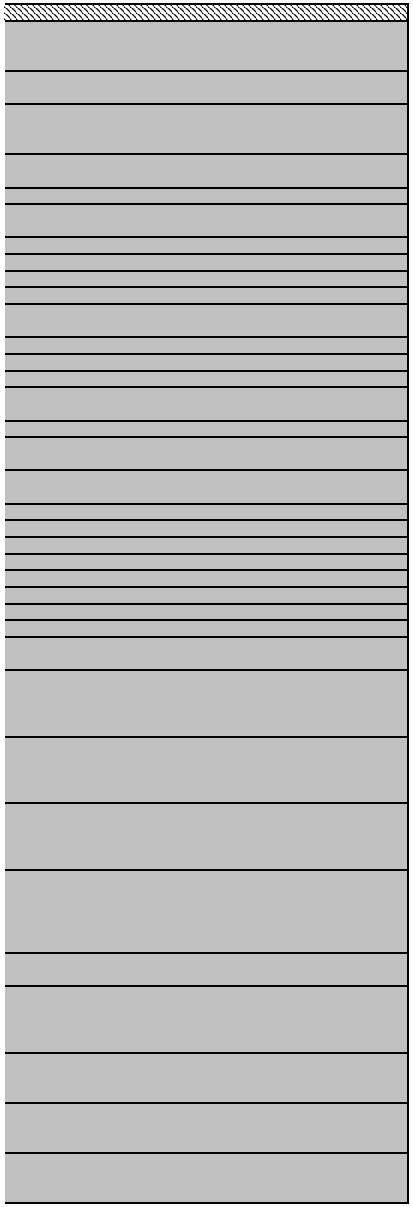
1		G.3.4 Crane	CRANES(P, A)		CATCRN	OBJNAM	NOBJNM	VERCLR	SCAMIN	SORDAT	SORIND										
			cranes(P,A)		CATCRN	OBJNAM	NOBJNM	VERCLR	verdat	SCAMIN	SORDAT	SORIND									
1	V2	G.3.5 Dock / Wharf	SLCONS(P, L, A)		CATSLC	NATCON	WATLEV	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND									
1	V2	G.3.6 Dry Dock	DRYDOC(A)		OBJNAM	NOBJNM	HORLEN	HORWID	HORCLR	DRVAL1	TXTDSC	SCAMIN	SORDAT	SORIND							
1		G.3.7 Floating Dock	FLODOC(A)		OBJNAM	NOBJNM	HORLEN	HORWID	HORCLR	DRVAL1	TXTDSC	SCAMIN	SORDAT	SORIND							
			flodoc(A)		OBJNAM	NOBJNM	HORLEN	HORWID	HORCLR	horcll	horclw	DRVAL1	verdat	TXTDSC	SCAMIN	SORDAT	SORIND				
1		G.3.8 Fender	SLCONS(P, L, A)		CATSLC	NATCON	WATLEV	SCAMIN	SORDAT	SORIND											
2	V11	G.3.9 Harbor Area	hrbare(A)	1	cathbr	OBJNAM	NOBJNM	TXTDSC	unlocd	SCAMIN	SORDAT	SORIND									
2	V11	G.3.10 Harbor Basin	hrbbsn(A)	1	HORLEN	HORWID	OBJNAM	NOBJNM	unlocd	SCAMIN	SORDAT	SORIND									
1	V2	G.3.11 Landing Stage, Pontoon	PONTON(A)	1	OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
			ponton(A)		OBJNAM	NOBJNM	TXTDSC	unlocd	SCAMIN	SORDAT	SORIND										
1	V11?	G.3.12 Mooring Facility	MORFAC(P, L, A)		CATMOR	NATCON	OBJNAM	NOBJNM	WATLEV	SCAMIN	SORDAT	SORIND									
1	V2 V6	*dolphin*			CATMOR	NATCON	OBJNAM	NOBJNM	WATLEV	SCAMIN	SORDAT	SORIND									
1	V2 V6	*post/pile*			CATMOR	NATCON	OBJNAM	NOBJNM	WATLEV	SCAMIN	SORDAT	SORIND									
1		*mooring buoy*			CATMOR	NATCON	OBJNAM	NOBJNM	WATLEV	SCAMIN	SORDAT	SORIND									
2		*bollard*			CATMOR	NATCON	OBJNAM	NOBJNM	WATLEV	SCAMIN	SORDAT	SORIND									
2		G.3.13 Federal Mooring Facility *used to show name of location*	SEAARE(P)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND												
1		G.3.14 Permanently Moored Vessel or Facility	HULKES(A)		CATHLK	OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND											
			hulkes(A)	1	cathlk	OBJNAM	NOBJNM	TXTDSC	unlocd	SCAMIN	SORDAT	SORIND									
2	V11	G.3.15 Port Area	prtare(A)	1	OBJNAM	NOBJNM	TXTDSC	unlocd	SCAMIN	SORDAT	SORIND										
2	V11	G.3.16 Free Port Area	FRPARE(A)		OBJNAM	NOBJNM	TXTDSC	SCAMIN	SORDAT	SORIND											
2		G.3.17 Refuse Dump	refdmp(P)		catrfd	OBJNAM	NOBJNM	unlocd	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND							
1	V2	G.3.18 Slipway	SLCONS(A)		CATSLC	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND											
2	V11	G.3.19 Terminal	termnl(P, A)	1	cathaf	TXTDSC	trshgd	OBJNAM	NOBJNM	unlocd	SCAMIN	SORDAT	SORIND								
2		G.3.20 Vehicle Transfer Location	vehtrf(P, A)	1	cathaf	TXTDSC	HEIGHT	verdat	unlocd	SCAMIN	SORDAT	SORIND									
2		G.3.21 Landing Steps, Ladders	SLCONS(P, A)		CATSLC	SCAMIN	SORDAT	SORIND													
2		G.3.22 Production / Storage Area	PRDARE(A)		CATPRA	PRODCT	CONVIS	OBJNAM	NOBJNM	STATUS	TXTDSC	SCAMIN	SORDAT	SORIND							
2		G.3.23 Ice Breaker	slcons(A)		catslc	NATCON	OBJNAM	NOBJNM	watlev	SCAMIN	SORDAT	SORIND									
2		G.4.1 Arrival Point	LNDRGN(P, A)		OBJNAM	NOBJNM	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND									
			SEAARE(P)		OBJNAM	NOBJNM	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND									
1	V2	G.4.2 Dam / Barrier	DAMCON(L, A)		CATDAM	OBJNAM	NOBJNM	NATCON	SCAMIN	SORDAT	SORIND										
			C_AGGR()		OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
			RESARE(A)		CATREA	RESTRN	INFORM	SCAMIN	SORDAT	SORIND											
1	V9	G.4.3 Lock Basin	lokbsn(A)	1	horcll	horclw	HORLEN	HORWID	unlocd	OBJNAM	NOBJNM	TXTDSC	SCAMIN	SORDAT	SORIND						
			C_AGGR()		OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
1	V9	G.4.4 Lock Basin Part	lkbspt(A)	1	horcll	horclw	HORLEN	HORWID	unlocd	OBJNAM	NOBJNM	TXTDSC	SCAMIN	SORDAT	SORIND						
			C_AGGR()		OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
1		G.4.5 Lock Gate	GATCON(L, A)		CATGAT	HORCLR	VERCLR	SCAMIN	SORDAT	SORIND											
			gatcon(L,A)		CATGAT	HORCLR	VERCLR	verdat	wtwdis	hunits	SCAMIN	SORDAT	SORIND								
			C_AGGR()		OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
1		G.4.6 Lock Name *used to show name*	comare(A)		catcom	COMCHA	OBJNAM	NOBJNM	STATUS	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND						
			SEAARE(A)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND												
			C_AGGR()		OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
1		G.4.7 Lock Wall	slcons(A)		catslc	NATCON	SCAMIN	SORDAT	SORIND												
			C_AGGR()		OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
1	V2	G.4.8 Exceptional Navigational Structure	excnst(P, A)		DRVAL1	catexs	verdat	wtwdis	hunits	SCAMIN	unlocd	SORDAT	SORIND								
			C_AGGR()		OBJNAM	NOBJNM	TXTDSC	SORDAT	SORIND												
2		H.1.1 Current	curent(P, A)		curvhw	curvlw	curvmw	curvow	dirimp	hignam	lownam	meanam	othnam	ORIENT	SCAMIN	SORDAT	SORIND				
1	V9	I.1.1 Detailed Depth - referenced to one water level	DEPARE(A)		DRVAL1	DRVAL2	QUASOU	SORDAT	SORIND												
1	V9	I.1.2 Detailed Depth - water level model	depare(A)		DRVAL1	DRVAL2	eleva1	eleva2	wtwdis	hunits	QUASOU	SORDAT	SORIND								
1	V9	I.1.3 Dredged Area	DRGARE(A)		DRVAL1	SORDAT	SORIND														
1	V9	I.1.4 Fairway	FAIRWY(A)		SCAMIN	SORDAT	SORIND														
1	V9	I.1.5 Fairway Depth / Project Depth	DEPARE(A)		DRVAL1	DRVAL2	QUASOU	SORDAT	SORIND												
1		I.1.6 Low / High Water Range (Drying Height)	DEPARE(A)		DRVAL1	DRVAL2	INFORM	SORDAT	SORIND												
1	V9	I.1.7 Shallow Depth	DEPARE(A)		DRVAL1	DRVAL2	SORDAT	SORIND													
1		I.1.8 Soundings *depth in figures*	SOUNDG(P)		SCAMIN	SORDAT	SORIND														
1		I.1.9 Unsurveyed Area *depth information failing*	UNSARE(A)		QUASOU	SORDAT	SORIND														
		I.1.9 Unsurveyed Aea *unsurveyed, but reposrted depth*	DEPARE(A)		DRVAL1	DRVAL2	QUASOU	SORDAT	SORIND												
2		I.2.1 Depth Contour	DEPCNT(L)		VALDCO	QUASOU	SORDAT	SORIND													
	V7	I.3.1 Depth Indicator	sistaw(P)		catsiw	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND										
2	V7	I.3.2 High Water Mark	sistaw(P)		catsiw	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND										
1	V7	I.3.3 Vertical Clearance Indicator	sistaw(P)		catsiw	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND										
2	V9/ V12	I.3.4 Waterway Gauge	wtwgag(P, A)	1	OBJNAM	NOBJNM	unlocd	catgag	wtwdis	hunits	ELEVAT	reflev	dispd	dispu	higwat	hignam	lowwat	lownam	meawat	meanam	othwat
1	V9	I.3.5 Waterway Profile	wtwprf(L)		wtwdis	hunits	HEIGHT	verdat	reflev	SCAMIN	SORDAT	SORIND									
1	V5	J.1.1 Rocks	UWTROC(P)		WATLEV	VALSOU	NATSUR	QUASOU	SCAMIN	SORDAT	SORIND										
			uwtroc(P)		watlev	VALSOU	NATSUR	QUASOU	SCAMIN	SORDAT	SORIND										
1	V5	J.2.1 Wrecks	WRECKS(P, A)	1	CATWRK	watlev	VALSOU	QUASOU	TECSOU	STATUS	SCAMIN	SORDAT	SORIND								
1	V5	J.3.1 Obstruction	OBSTRN(P, L, A)		CATOBS	NATSUR	VALSOU	WATLEV	INFORM	NINFOM	SCAMIN	SORDAT	SORIND								

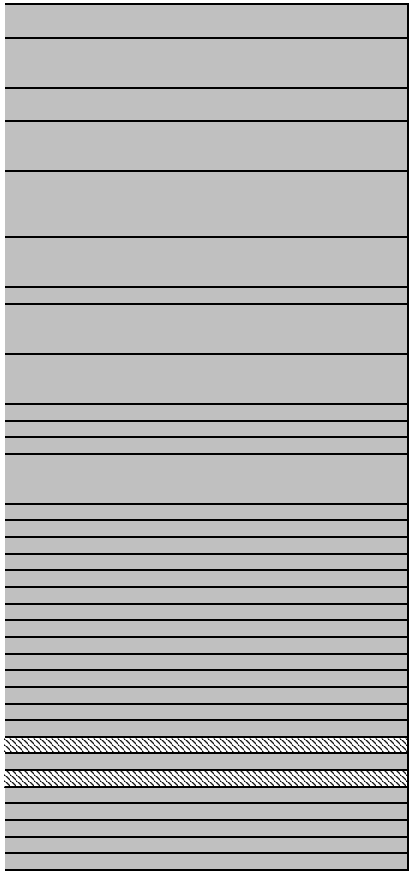
1	V6	J.3.2 Oil Barrier	OILBAR(L)		CATBAR	SCAMIN	SORDAT	SORIND																
1	V5	K.1.1 Submarine Cable	CBLSUB(L)		CATCBL	OBJNAM	NOBJNM	STATUS	SCAMIN	SORDAT	SORIND													
			notmrk(P)		catnmk	fnctnm	dirimp	disipd	disipu	disbk1	disbk2	addmrk	marsys	STATUS	INFORM	NINFOM	SCAMIN	SORDAT	SORIND					
			CTNARE(A)		INFORM	SCAMIN	SORDAT	SORIND																
1	V5	K.1.2 Submarine Cable Area	CBLARE(A)		CATCBL	RESTRN	OBJNAM	NOBJNM	STATUS	SCAMIN	SORDAT	SORIND												
			notmrk(P)		catnmk	fnctnm	dirimp	disipd	disipu	disbk1	disbk2	addmrk	marsys	STATUS	INFORM	NINFOM	SCAMIN	SORDAT	SORIND					
1	V5	K.2.1 Submarine Pipeline	PIPSOL(P, L)		CATPIP	PRODCT	OBJNAM	NOBJNM	STATUS	SCAMIN	SORDAT	SORIND												
			notmrk(P)		catnmk	fnctnm	dirimp	disipd	disipu	disbk1	disbk2	addmrk	marsys	STATUS	INFORM	NINFOM	SCAMIN	SORDAT	SORIND					
			CTNARE(A)		INFORM	SCAMIN	SORDAT	SORIND																
1	V5	K.2.2 Submarine Pipeline Area	PIPARE(A)		CATPIP	PRODCT	RESTRN	OBJNAM	NOBJNM	STATUS	SCAMIN	SORDAT	SORIND											
			notmrk(P)		catnmk	fnctnm	dirimp	disipd	disipu	disbk1	disbk2	addmrk	marsys	STATUS	INFORM	NINFOM	SCAMIN	SORDAT	SORIND					
1	V7	L.1.1 Navigation Line	NAVLNE(L)		CATNAV	ORIENT	SCAMIN	SORDAT	SORIND															
1	V7	L.1.2 Sailing Line / Recommended Track	RECTRC(L)		CATTRK	ORIENT	TRAFIC	INFORM	SCAMIN	SORDAT	SORIND													
			SEAARE(P)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND															
1	V7	L.1.3 Two-way Route Part	wtware(A)		ORIENT	TRAFIC	SCAMIN	SORDAT	SORIND															
3	V8	L.1.4 Waterway Axis	wtwaxs(L)		catccl	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND														
1	V13	L.2.1 Cable Ferry	FERYRT(L)		CATFRY	OBJNAM	NOBJNM	INFORM	NINFOM	STATUS	TXTDSC	SCAMIN	SORDAT	SORIND										
1	V13	L.2.2 Free Moving Ferry	FERYRT(L)		CATFRY	OBJNAM	NOBJNM	INFORM	NINFOM	STATUS	TXTDSC	SCAMIN	SORDAT	SORIND										
1	V13	L.2.3 Swinging Wire Ferry	feryrt(L)		CATFRY	OBJNAM	NOBJNM	INFORM	STATUS	TXTDSC	SCAMIN	SORDAT	SORIND											
			BOYSPP(P)		BOYSHP	CATSPM	COLOUR	CONRAD	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND											
2	V9	L.3.1 CEMT Classification, ISRS Code	wtware(A)	1	catccl	dirimp	unlocd	SCAMIN	SORDAT	SORIND														
3	V8	L.3.2 Distance Mark Along Waterway Axis	dismar(P)		CATDIS	wtwdis	unlocd	hunits	SCAMIN	SORDAT	SORIND													
1	V8	L.3.3 Distance Mark Ashore	dismar(P)	1	CATDIS	wtwdis	hunits	SCAMIN	SORDAT	SORIND														
1		M.1.1 Anchorage Area	achare(P, A)	1	catach	clsdng	TXTDSC	OBJNAM	NOBJNM	restrn	NATSUR	STATUS	unlocd	INFORM	NINFOM	SCAMIN	SORDAT	SORIND						
			SEAARE(P)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND															
1		M.1.2 Anchorage Berth	achbrt(P, A)	1	catach	clsdng	TXTDSC	OBJNAM	NOBJNM	restrn	NATSUR	STATUS	unlocd	INFORM	NINFOM	SCAMIN	SORDAT	SORIND						
1		M.1.3 Berth without Transshipment / Fleeting Areas	berths(P, L, A)	1	catach	clsdng	TXTDSC	DRVAL1	OBJNAM	NOBJNM	STATUS	unlocd	INFORM	NINFOM	SCAMIN	SORDAT	SORIND							
			SLCONS(L, A)		CATSLC	NATCON	WATLEV	SCAMIN	SORDAT	SORIND														
1	V11	M.1.4 Transshipment Berth	berths(P, L, A)	1	catach	clsdng	TXTDSC	DRVAL1	OBJNAM	NOBJNM	STATUS	trshgd	unlocd	INFORM	NINFOM	SCAMIN	SORDAT	SORIND						
			SLCONS(L, A)		CATSLC	NATCON	WATLEV	SCAMIN	SORDAT	SORIND														
1	V13	M.2.1 Restricted Area	resare(A)		restrn	CATREA	NATSUR	INFORM	NINFOM	SCAMIN	SORDAT	SORIND												
1	V7?	M.3.1 Caution Area	CTNARE(P, A)		OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND														
1	V7?	M.4.1 Communication Area	comare(A)		catcom	COMCHA	OBJNAM	NOBJNM	STATUS	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND									
2		M.4.2 River Surveillance Area	ADMARE(A)		JRSDTN	NATION	OBJNAM	NOBJNM	INFORM	NINFOM	TXTDSC	SCAMIN	SORDAT	SORIND										
1	V9	M.4.3 Section of Limited Depth	resare(A)		restrn	OBJNAM	NOBJNM	NATSUR	INFORM	NINFOM	SCAMIN	SORDAT	SORIND											
1	V9	M.4.4 Section of Limited Width	resare(A)		restrn	OBJNAM	NOBJNM	NATSUR	INFORM	NINFOM	SCAMIN	SORDAT	SORIND											
1	V9	M.4.5 Turning Basin	trnbsn(P, A)	1	HORCLR	OBJNAM	NOBJNM	INFORM	NINFOM	unlocd	SCAMIN	SORDAT	SORIND											
1	V7	N.1.1 Bridge Light	LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	MLTYLT	INFORM	ORIENT	SCAMIN	SORDAT	SORIND								
1		N.1.2 Minor Light	PILPNT(P)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	MLTYLT	INFORM	STATUS	SCAMIN	SORDAT	SORIND								
1	V7	N.1.3 Leading Light	PILPNT(P)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		CATLIT	COLOUR	EXCLIT	ORIENT	LITCHR	SIGPER	SIGGRP	SIGSEQ	MLTYLT	INFORM	STATUS	SCAMIN	SORDAT	SORIND						
			NAVLNE(L)		CATNAV	ORIENT	SCAMIN	SORDAT	SORIND															
			RECTRC(L)		CATTRK	DRVAL1	DRVAL2	ORIENT	TRAFIC	SCAMIN	SORDAT	SORIND												
1	V7	N.1.4 Directional Light	PILPNT(P)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		CATLIT	COLOUR	EXCLIT	LITCHR	LITVIS	ORIENT	SIGPER	SIGGRP	SIGSEQ	MLTYLT	INFORM	STATUS	SCAMIN	SORDAT	SORIND					
			NAVLNE(L)		CATNAV	ORIENT	SCAMIN	SORDAT	SORIND															
			RECTRC(L)		CATTRK	DRVAL1	DRVAL2	ORIENT	TRAFIC	SCAMIN	SORDAT	SORIND												
1	V7	N.1.5 Sector Light	PILPNT(P)		OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SECTR1	SECTR2	SIGPER	SIGGRP	SIGSEQ	INFORM	STATUS	SCAMIN	SORDAT	SORIND							
			NAVLNE(L)		CATNAV	ORIENT	SCAMIN	SORDAT	SORIND															
			RECTRC(L)		CATTRK	DRVAL1	DRVAL2	ORIENT	TRAFIC	SCAMIN	SORDAT	SORIND												
1	V7	O.1.1 Buoy at Bifurcation of Channel	BOYLAT(P)		BOYSHP	CATLAM	COLOUR	MARSYS	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND										
			BOYSPP(P)		BOYSHP	CATSPM	COLOUR	COLPAT	MARSYS	CONRAD	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND									
			boylat(P)		BOYSHP	catlam	COLOUR	COLPAT	marsys	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND								
			TOPMAR(P)		COLOUR	TOPSHP	COLPAT	SCAMIN	SORDAT	SORIND														
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND											
1	V7	O.1.2 Buoy at Bridge Pillar	boylat(P)		BOYSHP	catlam	COLOUR	COLPAT	marsys	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND								
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND											
1	V7	O.1.3 Buoy Marking Danger Point	BOYSPP(P)		BOYSHP	CATSPM	COLOUR	COLPAT	MARSYS	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND								
			boylat(P)		BOYSHP	catlam	COLOUR	COLPAT	marsys	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND								
			TOPMAR(P)		COLOUR	TOPSHP	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND											
1	V7	O.1.4 Cardinal Buoy	BOYCAR(P)		BOYSHP	CATCAM	COLOUR	COLPAT	MARSYS	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND								
			TOPMAR(P)		COLOUR	TOPSHP	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND											
1	V7	O.1.5 Lateral Buoy	boylat(P)		BOYSHP	catlam	COLOUR	COLPAT	marsys	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND								
			TOPMAR(P)		COLOUR	TOPSHP	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND											
1	V7	O.1.6 Safe Water Buoy	BOYSAW(P)		BOYSHP	COLOUR	COLPAT	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND										
			TOPMAR(P)		COLOUR	TOPSHP	SCAMIN	SORDAT	SORIND															
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND											

1	V7	O.1.7 Stalling Buoy	BOYLAT(P)		BOYSHP	CATLAM	COLOUR	COLPAT	MARSYS	OBJNAM	INFORM	SCAMIN	SORDAT	SORIND						
			LIGHTS(P)		COLOUR	LITCHR	SIGGRP	SCAMIN	SORDAT	SORIND										
1	V7	O.1.8 Swinging Axial Buoy	BOYSAW(P)		BOYSHP	COLOUR	COLPAT	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND							
			TOPMAR(P)		COLOUR	TOPSHP	INFORM	SCAMIN	SORDAT	SORIND										
			LIGHTS(P)		COLOUR	LITCHR	SIGGRP	SCAMIN	SORDAT	SORIND										
1	V7	O.1.9 Swinging Lateral Buoy	BOYLAT(P)		BOYSHP	CATLAM	COLOUR	COLPAT	MARSYS	INFORM	SCAMIN	SORDAT	SORIND							
			LIGHTS(P)		COLOUR	LITCHR	SCAMIN	SORDAT	SORIND											
	V7	O.1.10 Isolated Danger Buoy	BOYISD(P)		BOYSHP	COLOUR	COLPAT	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND						
			TOPMAR(P)		COLOUR	TOPSHP	SCAMIN	SORDAT	SORIND											
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND							
1	V7	O.2.1 Day Mark	bcnlat(P)		BCNSHP	catlam	dirimp	COLOUR	COLPAT	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND						
			DAYMAR(P)		COLOUR	TOPSHP	COLPAT	INFORM	SCAMIN	SORDAT	SORIND									
			daymar(P)		COLOUR	TOPSHP	COLPAT	INFORM	dirimp	ORIENT	SCAMIN	SORDAT	SORIND							
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	INFORM	SCAMIN	SORDAT	SORIND						
1	V7	O.2.2 Landmark Beacon	BCNLAT(P)		BCNSHP	CATLAM	COLOUR	COLPAT	SCAMIN	SORDAT	SORIND									
			TOPMAR(P)		COLOUR	TOPSHP	COLPAT	SCAMIN	SORDAT	SORIND										
			LIGHTS(P)		COLOUR	LITCHR	SIGGRP	SCAMIN	SORDAT	SORIND										
1	V7	O.2.3 Radar Beacon, RACON	RTPBCN(P)		CATRTB	RADWAL	SIGGRP	SCAMIN	SORDAT	SORIND										
1	V7	O.2.4 Spring Flood Beacon	BCNLAT(P)		BCNSHP	CATLAM	COLOUR	INFORM	NINFOM	SCAMIN	SORDAT	SORIND								
			TOPMAR(P)		COLOUR	TOPSHP	SCAMIN	SORDAT	SORIND											
			LIGHTS(P)		COLOUR	LITCHR	SCAMIN	SORDAT	SORIND											
1	V7	O.2.5 Isolated Danger Beacon	BCNISD(P)		BOYSHP	COLOUR	COLPAT	CONRAD	OBJNAM	NOBJNM	INFORM	SCAMIN	SORDAT	SORIND						
			TOPMAR(P)		COLOUR	TOPSHP	INFORM	SCAMIN	SORDAT	SORIND										
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND							
1	V7	O.3.1 Notice Marks	notmrk(P)		catnmk	fnctnm	dirimp	disipd	disipu	disbk1	disbk2	addmrk	bnkwtw	marsys	STATUS	INFORM	NINFOM	SCAMIN	SORDAT	SORIND
1	V7	O.3.2 Notice Marks on Bridges	notmrk(P)		catnmk	fnctnm	dirimp	marsys	ORIENT	STATUS	SCAMIN	SORDAT	SORIND							
1	V7	O.3.3 Wreck Pontoon	notmrk(P)		catnmk	ORIENT	INFORM	DATSTA	DATEND	PERSTA	PEREND	SCAMIN	SORDAT	SORIND						
1	V7	O.4.1 Special Purpose Buoy IALA	BOYSPP(P)		BOYSHP	CATSPM	COLOUR	CONRAD	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND							
			LIGHTS(P)		COLOUR	EXCLIT	LITCHR	SIGPER	SIGGRP	SIGSEQ	SCAMIN	SORDAT	SORIND							
			TOPMAR(P)		COLOUR	TOPSHP	COLPAT	SCAMIN	SORDAT	SORIND										
1	V7	P.1.1 Fog Signal	FOGSIG(P)		CATFOG	SIGFRQ	SIGGEN	SIGPER	SIGGRP	SIGSEQ	VALMXR	SCAMIN	SORDAT	SORIND						
3		Q.1.1 Radar Station	RADSTA(P)		CATRAS	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND										
1	V7	Q.2.1 Radio Calling-in Point	rdocal(P, L)		TRAFIC	ORIENT	COMCHA	catcom	TXTDSC	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND						
1		R.1.1 Check Point	chkpnt(P, A)	1	catchp	NATION	TXTDSC	OBJNAM	NOBJNM	unlocd	SCAMIN	SORDAT	SORIND							
1	V7	R.2.1 Traffic Signal Station - Bridge Passage	sistat(P)		catsit	dirimp	TXTDSC	OBJNAM	NOBJNM	INFORM	NINFOM	SCAMIN	SORDAT	SORIND						
1	V7	R.2.2 Traffic Signal Station - Lock	sistat(P)		catsit	dirimp	TXTDSC	OBJNAM	NOBJNM	INFORM	NINFOM	SCAMIN	SORDAT	SORIND						
1	V7	R.2.3 Traffic Signal Station - Oncoming Traffic Indicator	sistat(P)		catsit	dirimp	TXTDSC	OBJNAM	NOBJNM	INFORM	NINFOM	SCAMIN	SORDAT	SORIND						
1	V7	R.2.4 Traffic Signal Station - Port Entry and Departure	sistat(P)		catsit	dirimp	TXTDSC	OBJNAM	NOBJNM	INFORM	NINFOM	SCAMIN	SORDAT	SORIND						
2	V11?	S.1.1 Harbor Facilities	hrbfac(P, A)		cathaf	TXTDSC	SCAMIN	SORDAT	SORIND											
1		S.1.2 Marina	HRBFAC(P, A)		CATHAF	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND										
3		S.1.3 Small Craft Facility	SMCFAC(P, A)		CATSCF	TXTDSC	OBJNAM	NOBJNM	SCAMIN	SORDAT	SORIND									
1	V10	T.1.1 Time Schedule (general)	tisdge()		catlab	schref	shptyp	useshp	aptref	dirimp	SORDAT	SORIND								
1		U.1.1 Maximum Permitted Ship Dimensions	lg_sdm(A)		lg_rel	lg_bme	lg_lgs	lg_drt	lg_wdp	lg_wdu	lg_des	lc_csi	lc_cse	lc_asi	lc_ase	lc_cci	lc_cce	lg_pbr	SORDAT	SORIND
1		U.1.2 Maximum Permitted Vessel Speed	lg_vsp(A)		lg_rel	lg_spd	lg_spr	lg_des	lc_csi	lc_cse	lc_asi	lc_ase	lc_cci	lc_cce	lg_pbr	SORDAT	SORIND			
1	S57	C.1.1 Data Coverage	M_COVR(A)		CATCOV	SORDAT	SORIND													
2		C.1.2 Data Quality	M_QUAL(A)		CATZOC	SORDAT	SORIND													
1	V7	C.1.3 Navigation System of Marks	m_nsys(A)		marsys	SORDAT	SORIND													
1		C.1.4 Sounding Datum	m_sdat(A)		verdat	SORDAT	SORIND													
1		C.1.5 Vertical Datum	m_vdat(A)		verdat	SORDAT	SORIND													
2		C.1.6 Quality of Data for Detailed Depth Information	M_QUAL(A)		TECSOU	SOUACC	POSACC	SORDAT	SORIND											
2		C.1.7 Survey Reliability for Detailed Depth Information	M_SREL(L, A)		QUASOU	QUAPOS	SURATH	SUREND	SURSTA	SURTYP	SORDAT	SORIND								
1		C.1.8 Nautical Publication Information	M_NPUB(A)		TXTDSC	SORDAT	SORIND													




othnam
sdrlev
vcrlev
SCAMIN
SORDAT
SORIND





1 trnbsn(P, A)
1 wtware(A)
1 wtwgag(P, A)
1 excnst(P, A)
1 lkbspt(A)
1 lokbsn(A)
1 hrbbsn(A)
1 bridge(A)
2 berths(P, L, A)
2 achbrt(P, A)
2 achare(P, A)
2 vehtrf(P, A)
2 hulkes(A)
2 ponton(A)
2 bunsta(P, A)
3 dismar(P)
3 termnl(P, A)
4 chkpnt(P, A)
4 prtare(A)
4 hrbare(A)

An area of water or enlargement of a channel used for turning vessels.
Classification of the waterway according to CEMT; local International Ship Reporting System code.
A waterway gauge is an instrument for measuring water levels.
An exceptional navigational construction such as an aqueduct, lift-lock,
A lock basin is divided into several lock basin parts, if this lock basin has one ground level but several gates.
A lock basin is a wet dock in a waterway, permitting a ship to pass from one level to another.
An enclosed area of water surrounded by quay walls constructed to provide means for the transfer of cargo fr
A bridge having permanent horizontal and vertical alignment.
A designated named or numbered place at the bank of the river or in a harbour basin for the mooring of vesse
A designated area of water where a single vessel, convoy, sea plane, etc. may anchor.
An area in which vessels anchor or may anchor.
A place where vehicles can be loaded or unloaded from the inland vessel with onboard or onshore facilities.
A permanently moored ship
A floating structure, usually rectangular in shape which serves as landing, pier head or bridge support.
A station, at which a vessel is able to bunker fuel, water or ballast
A distance mark indicates the distance measured from an origin and consists of a distinct location without spe
A terminal covers that area on shore that provides buildings and constructions for the transfer of cargos from
An official place to register, declare, or check goods and/or people.
Apart from harbors, a port includes a city or borough with accommodations and facilities for landing passenge
The area of water and land with the works necessary for its formation, protection and maintenance.

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