

NOTICE OF FILING

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Registry:	NEW SOUTH WALES REGISTRY - FEDERAL COURT OF AUSTRALIA



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Form 59
Rule 29.02(1)

Affidavit

NSD 527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

FORTESCUE LIMITED (ACN 002 594 872) and others

Applicants

ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

Respondents

Affidavit of: **Dr Anand Indravadan Bhatt**
Address: Level 2, 87 Adelaide Terrace, East Perth, WA, 6040, Australia
Occupation: Manager of Minerals, Research & Development
Date: 1 August 2024

Contents

Document number	Details	Paragraph	Page
1	Affidavit of Dr Anand Indravadan Bhatt affirmed on 1 August 2024, in answer to the First, Second and Fourth Respondents' interlocutory application dated 21 June 2024	1-105	1-29
2	Confidential Annexure AIB-38, being Dr Anand Indravadan Bhatt's description of confidential Fortescue documents	36	30-32
3	Confidential Annexure AIB-39, being Dr Anand Indravadan Bhatt's description of documents sent by Dr Kolodziejczyk to Mr Matthew Roper	44	33-36
4	Confidential Annexure AIB-40, being copy of document with the file name "Green Iron Update (02.08.2021).pdf [1126743]"	34(a)	37-50

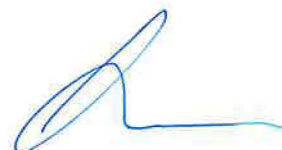
Filed on behalf of	Fortescue Limited and others, the Applicants		
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Document number	Details	Paragraph	Page
5	Confidential Annexure AIB-41, being copy of document with the file name "FFI0302-10000-00-EG-BOD-0001_A (002) (BK) [1145938].docx"	34(c)	51–81
6	Confidential Annexure AIB-42, being copy of document with the file name "Bumblebee PID markups 26_10_21.pdf"	34(d)	82–97
7	Confidential Annexure AIB-43, being copy of email from Dr Kolodziejczyk to Mr Roper dated 5 October 2021 and its attachment	41(a)	98–103
8	Confidential Annexure AIB-44, being copy of email from Dr Kolodziejczyk to Mr Roper dated 29 October 2021 and its attachment	41(b)	104–110
9	Confidential Annexure AIB-45, being copy of email from Dr Kolodziejczyk to Mr Roper dated 4 November 2021 and its attachment	41(c)	111–134
10	Confidential Annexure AIB-46, being copy of email from Dr Winther-Jensen to Mr Roper dated 4 November 2021 and its attachment	41(d)	135–160
11	Confidential Annexure AIB-47, being copy of email from Dr Kolodziejczyk to Mr Roper dated 5 November 2021 and its attachment	41(e)	161–165
12	Annexure AIB-48, being copy of email from Dr Kolodziejczyk to Mr Roper dated 5 November 2021 (1:06PM)	41(f)	166–167
13	Confidential Annexure AIB-49, being copy of presentation slides with the internal title 'Green Iron Forum'	78(e)	168–177
14	Confidential Annexure AIB-50, being copy of the second draft of the Leaching Technical Report	89(b)	178–203
15	Confidential Annexure AIB-51, being copies of two emails (and attachments) from Dr Winther-Jensen to Dr Shrestha	89(d)	204–213
16	Confidential Annexure AIB-52, being copy of the minutes of a FFI Innovation Centre Weekly Meeting on 9 November 2021	89(e)	214–216

I, ANAND INDRAVADAN BHATT, Level 2, 87 Adelaide Terrace, East Perth, WA, 6040, Australia, Manager, Electrochemist and Materials Scientist, affirm:

1. I am employed by the Third Applicant, FMG Personnel Services Pty Ltd, in the position of Manager of Minerals, Research & Development.
2. This is my second affidavit in this proceeding (**Second Affidavit**). My first affidavit was affirmed on 1 May 2024 (**First Affidavit**).

3. I make this Second Affidavit in answer to the First, Second and Fourth Respondents' Interlocutory Application dated 21 June 2024, in which the Third Respondent has joined. I am authorised to make this affidavit on Fortescue's behalf.
4. The defined terms in my First Affidavit are adopted in this Second Affidavit.
5. In making this affidavit, I do not waive or intend to waive, nor am I authorised to waive, privilege in any communication between the Applicants and their external legal representatives.
6. The evidence I give in this affidavit is based on my personal knowledge, unless stated otherwise, or the business records of Fortescue to which I have access in the course of my employment, in which case I have annexed them to this affidavit. Where my evidence is provided on information and belief, I identify the source of that information and I believe it to be true and correct. My expert opinions set out in this affidavit are wholly or substantially based on my specialised knowledge and experience gained from the training, study and experience set out in **Part A** of my First Affidavit and referred to in paragraphs 8 to 19 below.
7. I have been provided with the following documents:
 - (a) the Emails referred to in paragraphs 41(a) - 41(f) below;
 - (b) the affidavit of Dr Bartłomiej Piotr Kolodziejczyk sworn on 19 June 2024 and Confidential Exhibit BPK-2 (under a confidentiality regime); and
 - (c) the affidavit of Dr Bjorn Winther-Jensen affirmed on 8 July 2024.

I respond to Dr Kolodziejczyk's and Dr Winther-Jensen's affidavits below. To the extent that I do not respond to any part of their affidavits below, it should not be assumed that I agree with that part.

A My experience in the subject matter in Dr Kolodziejczyk's Affidavit

8. I am an experienced Electrochemist and Materials Scientist. I have previously set out my qualifications and experience in this regard at **Part A** of my First Affidavit.
9. My curriculum vitae is annexed as **Annexure AIB-1** to my First Affidavit and is summarised in Part A of my First Affidavit.
10. I have been asked by Davies Collison Cave Law (**DCCL**) to describe my training, study or experience in the following subject matter:
 - (a) flow batteries and donor electrodes;



- (b) forecasting algorithms (in the context of renewable power generation);
- (c) 'green' hydrogen technologies;
- (d) 'green' cement; and
- (e) reviewing basis of design documents and piping and instrumentation diagrams (P&IDs).

11. I do so in paragraphs 14-19, 21, 23-24, 27, and 31-33 below.

A.1 Flow batteries and donor electrodes

12. A **flow battery** is a battery device where the electrolyte and active battery materials needed for the reaction to take place for energy storage or energy discharge are pumped away from the electrodes until the required reaction is needed to be performed for the battery to work. This is unlike in a "traditional" battery where the electrolyte and materials are held next to the electrode in a sealed system with no movement under normal operating conditions. There are a range of chemical reactions which can work for flow batteries.
13. In the context of batteries, a **donor electrode** is an electrode that will provide a sacrificial metal or other compound for the battery chemistry reactions which are required for discharge or charge of the battery.
14. I have substantial experience in the field of battery technologies (including in flow batteries) and donor electrodes as part of my roles at VSPC Ltd (**VSPC**) and CSIRO before I joined Fortescue.
15. I was employed as the Lead Scientist for VSPC during the period September 2021 to January 2022, which I briefly describe in paragraph 15 of my First Affidavit. VSPC was, and still is, a battery materials supplier. VSPC manufactured its own batteries and tested and evaluated electrodes and batteries to demonstrate the feasibility of their products for securing customers. As Lead Scientist, I was responsible for various programs including materials development, battery testing including electrode manufacturing, and technology commercialisation (from pilot to commercial). I was also responsible for running VSPC's research department.
16. I was employed by CSIRO, first, as Research Scientist, Division of Energy Technology (2008 to 2012), and secondly as Research Team Leader for the Electrochemical Energy Storage Team (2012 to 2021); both roles I briefly described in paragraph 14 of my First Affidavit. As Research Scientist, I undertook research focussed on development of next-



generation battery technology and testing and evaluation of lithium batteries. Specifically, I developed lithium metal donor electrodes, constructed battery devices, and evaluated these devices for performance. As Research Team Leader for the Electrochemical Energy Storage Team, I led CSIRO's efforts in battery evaluation, integration and application research, and battery recycling technologies development with a focus on lithium-ion battery technologies. During this period, I specifically managed an R&D program to evaluate a flow battery for a commercial client. I have also led an R&D program where flow batteries were evaluated for performance.

17. I am also co-inventor of an invention which is the subject of the following patent filed under the Patent Cooperation Treaty, designating Australia (among other Contracting States): Best, A.S., Bhatt, A.I., Helmer, R., Petersen, P., Snook, G., "Redox electrodes for flexible devices", WO 2009/127006.
18. This patent relates to the development of lithium metal donor battery electrodes and battery electrodes utilising scaffold structures for support of the lithium metal.
19. I am also a co-author of the following publications which relate to, among other things, flow batteries:
 - (a) *Australian Battery Performance Standard Industry Best Practice Guideline*, DNV GL (Liebrich F., Mendis N.), CSIRO (Bhatt A. I., Munnings C., Hollenkamp A. F.), Smart Energy Council (Smith W.), June 2020. This publication details battery testing and evaluation, including flow battery testing and evaluation, and evaluation of renewable intermittency and correlation to battery testing. This document was backed by laboratory testing of a range of battery types, including flow batteries.
 - (b) *Proposed Australian Battery Performance Testing Standard - for PV connected residential/small scale commercial systems*, DNV GL (Liebrich F., Mendis N.), CSIRO (Bhatt A. I., Munnings C., Hollenkamp A. F., Trezise A., Huynh T., Kao P., Haigh N.), Smart Energy Council (Smith W.), submitted to Standards Australia - June 2020. This publication is related to the publication in paragraph 19(a) above and details battery testing and evaluation, including flow battery testing and evaluation, and evaluation of renewable intermittency and correlation to battery testing. This document was also backed by laboratory testing of a range of battery types, including flow batteries.

A.2 Forecasting algorithms (in the context of renewable power generation)

20. **Forecasting algorithms** (in the context of renewable power generation) are technologies to predict the variability of renewable energy generation. Firm power (the known amount

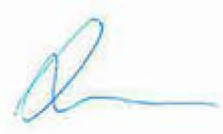



of energy that is reliable and provided on demand) is crucial for many industrial applications of electricity. Renewable power generation, which is reliant on sources such as, for example, sun or wind, can vary in power. Predicting variability in renewable power generation can help to provide firm power through the use of storage or other technologies. This prediction can be accomplished using computer software and suitable algorithms that can monitor weather data and predict how much renewable energy will be generated in the future.

21. As Research Team Leader for the Electrochemical Energy Storage Team at CSIRO, I acquired knowledge in such forecasting algorithms because of the relationship between my team and a related CSIRO team that was developing solar forecasting technology for solar panels (comprising hardware and software components, the software components using predictive algorithms), and testing solar panels with this technology for performance. I kept abreast of the solar forecasting team's research through attending their talks and presentations, reading their reports, and talking with team members to identify potential collaborative partnerships between our two teams.

A.3 'Green' hydrogen technologies

22. **Green hydrogen** technologies are technologies that either generate hydrogen or use hydrogen to replace existing industrial processes that are reliant on fossil fuels, or to create new processes that are fossil fuel independent. When the hydrogen is created using renewable energy sources, these technologies are termed "green hydrogen technologies".
23. In my current role at Fortescue, I have experience with green hydrogen technologies in reviewing and approving (for compliance with Type B gas applications) the following technologies:
 - (a) hydrogen fuel cell haulage truck;
 - (b) off-board power unit using hydrogen fuel cells;
 - (c) provided advice to liquid hydrogen refuelling station;
 - (d) part of the Major Hazards Committee for Hydrogen, covering all of safety in Fortescue;
24. Before joining Fortescue, I gained experience in green hydrogen technologies during my roles at CSIRO. In about 2013-2016, I was involved in setting up the CSIRO Centre for Hybrid Energy Systems. This involved developing technologies where hydrogen fuel cells



or green hydrogen technologies were combined with battery storage technologies. I managed the testing and evaluation of these technologies for research purposes.

A.4 'Green' cement

25. **Green cement** is cement that is created with feedstocks or processes that remove CO₂ emissions in the cement-making process.
26. In my current role at Fortescue, I have experience with green cement.
27. I have been working on green cement, which is an R&D program for Fortescue, since I started working at Fortescue in January 2022. The program involves evaluating the work on green cement done to date, identifying a commercialisation pathway, identifying R&D gaps, and [REDACTED]


A.5 Basis of design documents and P&IDs

28. I briefly explained what 'basis of design' and 'piping and instrument diagrams' (**P&IDs**) are in paragraphs 117(a) and 117(b) of my First Affidavit.
29. A **basis of design** is a document used for the basis for the detailed engineering of a pilot plant and describes the scope of the pilot plant and the limits for each section of the pilot plant. The document establishes the minimum functional requirements, technical parameters, and criteria to undertake the engineering design of a proposed pilot plant.
30. **P&IDs** are documents containing conceptual engineering drawings that depict the locations of all instruments (e.g., sensors, actuators, switches, etc.) and all equipment (e.g., tanks, stirrers, heaters, etc.). The documents also describe how each component should be connected by pipework and the location of valves and controls in that pipework.
31. At Fortescue, I am the responsible manager for the construction of engineering prototypes and a pilot plant. As part of my role, I am responsible for reviewing basis of design documents and P&IDs and approving them.
32. I have been responsible for these tasks since starting my current role at Fortescue, which was around January 2022.
33. Further, I am also a Type B Gas Inspector for the West Australian Department of Energy, Mines, Industry Regulation and Safety, which involves reviewing P&IDs and ensuring their compliance with the relevant legislation and regulations in Western Australia.



B Fortescue Documents

34. I have been provided with the following documents (**Fortescue Documents**) by DCCL and was asked to assume that Dr Kolodziejczyk had copied them from his Fortescue laptop before he left Fortescue:
- (a) File named "Green Iron Update (02.08.2021).pdf [1126743]" (**Green Iron Update**). Shown to me and marked **Confidential Annexure AIB-40** is a copy of the Green Iron Update.
 - (b) Copies of the specifications and drawings, as filed on 24 May 2021, of Australian provisional patent application no. 2021901547 entitled 'Apparatus and process for producing iron' in the name of Fortescue Future Industries Pty Ltd, including documents with the file names "35557986AU- Specification as filed (35557986).pdf" (**Provisional Specification**) and "35557986AU - Drawings as filed (35557986).pdf" (**Provisional Drawings**). The Provisional Specification and Provisional Drawings were together defined as the **Fortescue Green Iron Provisional Application** in paragraph 150 of my First Affidavit. The Fortescue Green Iron Provisional Application is contained at **Confidential Annexure AIB-34** of my First Affidavit.
 - (c) Document titled "Basis of Design – Chameleon Pilot Plant" having file name "FFI0302-10000-00-EG-BOD-0001_A (002) (BK)[1145938].docx" (**Basis of Design**). Shown to me and marked **Confidential Annexure AIB-41** is the Basis of Design.
 - (d) File named "Bumblebee PID markups 26_10_21.pdf" (**Bumblebee P&ID**). Shown to me and marked **Confidential Annexure AIB-42** is a copy of the Bumblebee P&ID.
- which I am informed by DCCL are identified in paragraph 19 of the Amended Statement of Claim (**ASOC**).
35. I have been asked by DCCL to review and briefly describe each of the Fortescue Documents. I have reviewed each of the Fortescue Documents and briefly describe them as referred to below.
36. I briefly describe the Green Iron Update in **section 1** of **Confidential Annexure AIB-38**.
37. I briefly describe the Provisional Specification and the Provisional Drawings in **section 2** of **Confidential Annexure AIB-38**.
38. I briefly describe the Basis of Design in **section 3** of **Confidential Annexure AIB-38**.
39. I briefly describe the Bumblebee P&ID in **section 4** of **Confidential Annexure AIB-38**.

40. For the reasons I describe in paragraphs 70 to 76 below, I consider these documents would be useful to a competitor of Fortescue in the design, engineering, construction, operation and/or feasibility of an electrochemical reduction pilot plant, regardless of the electrochemical reduction process used by the pilot plant.

C Emails from Dr Kolodziejczyk to Mr Roper

41. I have been provided with the following emails and their attachments (**Emails**) by DCCL which I am told were provided to DCCL by Matthew Roper, Intellectual Property Manager of Fortescue's Energy business unit:
- (a) An email from Dr Kolodziejczyk to Mr Roper dated 5 October 2021 with the subject "Iron donor electrodes" and its attachment named "Invention disclosure [sic] – High performance iron electrode (BK).docx" (**Iron Donor Electrode**). Shown to me and marked **Confidential Annexure AIB-43** is that email and the Iron Donor Electrode document.
 - (b) An email from Dr Kolodziejczyk to Mr Roper dated 29 October 2021 with the subject "Forecasting Algorithm Description" and two attachments named "Forecasting algorithm.docx" (**Forecasting Algorithm**) and "Forecasting algorithm.pptx". Shown to me and marked **Confidential Annexure AIB-44** is that email and the two attachments.
 - (c) An email from Dr Kolodziejczyk to Mr Roper dated 4 November 2021 with the subject "Re: FW: [REDACTED] draft [ITUSEONLY-DCC.FID1233888]" and its attachment named "[REDACTED] – 35568984AU – Draft Specification – 0311 -B (35568984) (BK).docx" which contains Dr Kolodziejczyk's tracked changes and comments. Shown to me and marked **Confidential Annexure AIB-45** is that email and its attachment.
 - (d) An email from Dr Winther-Jensen to Mr Roper dated 4 November 2021 with the subject "RE: FW: [REDACTED] draft [ITUSEONLY-DCC.FID1233888]", and its attachment named "[REDACTED] – 35568984AU – Draft Specification – 0311 -B (35568984) (BK+BWJ).docx" ([REDACTED] **Draft**) which contains Dr Winther-Jensen's comments in response to Dr Kolodziejczyk's comments. Shown to me and marked **Confidential Annexure AIB-46** is that email and the [REDACTED] Draft.
 - (e) An email from Dr Kolodziejczyk to Mr Roper dated 5 November 2021 with the subject "Iron flow battery – prior art and novelty of current invention" and its attachment named "Iron Flow Battery.docx" (**Iron Flow Battery**). Shown to me and

marked **Confidential Annexure AIB-47** is that email and the Iron Flow Battery document.

(f) An email from Dr Kolodziejczyk to Mr Roper dated 5 November 2021 (1:06PM) with the subject "Re: Iron flow battery – prior art and novelty of current invention". Shown to me and marked **Annexure AIB-48** is a copy of that email chain.

42. I have been told by DCCL to assume that the Emails are all the emails sent by Dr Kolodziejczyk to Mr Roper in October and November 2021 up to and including Dr Kolodziejczyk's last day (5 November 2021).
43. I have been asked by DCCL to review each of the Emails and to briefly describe each of the Iron Donor Electrode document, the Forecasting Algorithm document, the [REDACTED] Draft, and the Iron Flow Battery document. I have reviewed each of the Emails and those documents and briefly describe them as referred to below.
44. I briefly describe the Iron Donor Electrode document in **section 1 of Confidential Annexure AIB-39**.
45. I briefly describe the Forecasting Algorithm document in **section 2 of Confidential Annexure AIB-39**. I observe that the attachment "Forecasting algorithm.pptx" in **Confidential Annexure AIB-44** contains the diagram on page 2 of the Forecasting Algorithm document, so I have not commented on "Forecasting algorithm.pptx" separately in this affidavit.
46. I briefly describe the [REDACTED] Draft in **section 3 of Confidential Annexure AIB-39**. My understanding of the [REDACTED] Draft document is that it contains Dr Winther-Jensen's comments in reply to Dr Kolodziejczyk's tracked changes to, and comments in, the attachment in paragraph 41(c) above. I observe that the internal page numbering of the [REDACTED] Draft in Confidential Annexure AIB-46 does not appear in Confidential Exhibit BPK-2 at pages 16-35.
47. I briefly describe the Iron Flow Battery document in **section 4 of Confidential Annexure AIB-39**.

D Lack of relevance of the Fortescue Documents to Iron Donor Electrode, Forecasting Algorithm, [REDACTED] Draft and Iron Flow Battery

48. I have been asked by DCCL to express an opinion on whether any of the Fortescue Documents is relevant to preparing or considering:

- (a) the Iron Donor Electrode document;




- (b) the Forecasting Algorithm document;
- (c) the [REDACTED] Draft, and
- (d) the Iron Flow Battery document.

49. I set out my opinions in paragraphs 50 to 57 below.

D.1 Iron Donor Electrode; Iron Flow Battery

50. The Iron Donor Electrode document describes a potentially patentable concept of an iron-based electrode for an iron flow battery device. The Iron Flow Battery document describes a potentially patentable concept for an iron flow battery. These two documents are related because the former describes a component (electrode) of the latter (battery). I describe these two documents in more detail in **sections 1 and 4 of Confidential Annexure AIB-39**.

51. In my opinion, none of the Fortescue Documents are relevant to preparing or considering either the Iron Donor Electrode or Iron Flow Battery for the following reasons:

(a) **Green Iron Update** — this document is a PDF copy of a slide deck prepared for a Green Iron Update meeting and describes a Fortescue strategy for developing green iron in the Pilbara and discusses potential projects and partnerships. These projects and partnerships do not contain any information relevant to a flow battery or donor electrodes for flow batteries. There is no mention of “battery” or “electrode” in this document.

(b)

(i) **Provisional Specification** – the Provisional Specification describes an invention of a method to produce iron from iron ore using only electricity. This technology is not the same as a flow battery technology, even though both rely on electrochemistry (a broad field); one is the application of electrochemistry to reduce iron ore to metallic iron; the other is the application of electrochemistry to store and discharge energy for battery applications. I am of the same opinion in relation to the Iron Donor Electrode document, which describes a donor electrode for a flow battery. The only mentions of battery in the Provisional Specification are in the description of:

- A. an equation for the electrochemical reduction of the iron ore, which notes that this electrochemical reaction is similar to one that has been




used in batteries (at page 9, lines 22-23). This note is very high level and does not describe any further details of battery technology; and

- B. the electrolyte which will be used for the green iron production, which notes that this is similar to a 'traditional' battery chemistry (an Edison cell, which is not a flow battery) (at page 11, lines 6-14).
- (ii) **Provisional Drawings** – this document contains the figures that are referred to in the Provisional Specification but are not present in that document. In my opinion, none of the figures describe a flow battery construction or donor electrodes for flow batteries. The figures are only describing technologies consistent with the Provisional Specification.
- (c) **Basis of Design** – this is a draft document used as the basis for the detailed engineering of Fortescue's pilot plant for its electrochemical iron ore reduction technology (the Fortescue Process) and describes the scope of the pilot plant and the limits for each section of the plant. This pilot plant is not designed to construct flow batteries or donor electrodes for flow batteries, and so this document is not relevant to the Iron Donor Electrode or Iron Flow Battery. Whilst the term "battery" appears numerous times in this document, it is used in the context of the phrase "battery limits". "Battery limits" describes the scope of what the document is and what it is designed to do ("battery" in "battery limits" does not have the same meaning as "battery" in "battery device"). "Battery limits" is an engineering term and refers to a defined boundary between areas of responsibility. Here, the use of the term "battery limit" defines the scope of the Fortescue pilot plant.
- (d) **Bumblebee P&ID** – this is a bundle of draft P&IDs and concepts for Fortescue's pilot plant. The document informs the reader of where piping, instruments and other equipment should be located. The Bumblebee P&ID describes a green iron pilot plant and does not have any relevance to manufacturing flow batteries or donor electrodes for flow batteries.

D.2 Forecasting Algorithm

52. The Forecasting Algorithm document describes forecasting algorithm technology that uses machine learning for the prediction of renewable power variability.
53. In my opinion none of the Fortescue Documents are relevant to preparing or considering the Forecasting Algorithm document for the following reasons:




- (a) **Green Iron Update** — this document is a PDF copy of a slide deck prepared for a Green Iron Update meeting and describes a Fortescue strategy for developing green iron in the Pilbara and discusses potential projects and partnerships. These projects and partnerships do not contain any information relevant to forecasting algorithms. There is no mention of “algorithm” or “forecast” in this document.
- (b)
- (i) **Provisional Specification** – the Provisional Specification describes an invention of a method to produce iron from iron ore using only electricity. This technology is significantly different from a forecasting algorithm that uses machine learning to predict solar, wind or other variable renewable energy sources. Although the Provisional Specification mentions renewable intermittency (at page 5, line 1) (which is another word for the variability in renewable energy generation in paragraph 20 above), this is a well-known phenomenon in renewable energy. Forecasting algorithms can be used to manage this intermittency. However, the Provisional Specification provides no further detail about renewable intermittency or any detail about how that intermittency might be managed using a forecasting algorithm.
- (ii) **Provisional Drawings** – this document contains the figures that are referred to in the Provisional Specification but are not present in that document. In my opinion, none of the figures describe a forecasting algorithm and are only describing technologies consistent with the Provisional Specification.
- (c) **Basis of Design** – this is a draft document used as the basis for the detailed engineering of Fortescue’s pilot plant for its electrochemical iron ore reduction technology (the Fortescue Process) and describes the scope of the pilot plant and the limits for each section of the plant. The Basis of Design does not contain any information relevant to forecasting algorithms for power generation. In fact, in this particular draft of the Basis of Design, the power supply for the pilot plant has not yet been specified: see page 27 at [2.11] (“Electrical Supply and Control” is a placeholder) and page 15 (“status of grid / power supply TBC”).
- (d) **Bumblebee P&ID** – this is a bundle of draft P&IDs and concepts for Fortescue’s pilot plant. The document informs the reader of where piping, instruments, and other equipment should be located. The Bumblebee P&ID describes a green iron pilot plant and does not have any relevance to a forecasting algorithm. The Bumblebee P&ID does not contain any information relevant to electrical wiring or power supply; it only focuses on piping, instrument location, and equipment location.



D.3 [REDACTED] Draft

54. The [REDACTED] Draft is a document describing an invention [REDACTED]
[REDACTED]
55. In my opinion, the Provisional Specification and Provisional Drawings are relevant to the [REDACTED] Draft because the text of the Provisional Specification is contained in the text of the [REDACTED] Draft, and the Provisional Drawings relate to the description in that text.
56. However, in my opinion, none of the other Fortescue Documents are relevant to preparing or considering the [REDACTED] Draft for the following reasons:

- (a) **Green Iron Update** — this document is a PDF copy of a slide deck prepared for a Green Iron Update meeting and describes a Fortescue strategy for developing green iron in the Pilbara and discusses potential projects and partnerships. These projects and partnerships do not contain any information relevant to the subject matter of the [REDACTED] Draft. The Green Iron Update does not contain any of the details required to set the limits of [REDACTED] for commercial iron products. These details will be required to aid the drafting of the [REDACTED] Draft. I observe that the references to [REDACTED] in the Green Iron Update are very general or high level.
- (b) **Basis of Design** – this is a draft document used as the basis for the detailed engineering of Fortescue’s pilot plant for its electrochemical iron ore reduction technology (the Fortescue Process) and describes the scope of the pilot plant and the limits for each section of the plant. The Basis of Design has no relevance to preparing or considering the [REDACTED] Draft. [REDACTED]

(i)

(ii)

- [REDACTED]
- (c) **Bumblebee P&ID** – this is a bundle of draft P&IDs and concepts for Fortescue’s pilot plant. The document informs the reader of where piping, instruments, and equipment should be located. The Bumblebee P&ID describes a green iron pilot plant and does not have any relevance to preparing or considering the [REDACTED] Draft.
- [REDACTED]


D.4 Conclusion

57. In my opinion, none of the Fortescue Documents are relevant to preparing or considering the Iron Donor Electrode document, the Forecasting Algorithm document, the [REDACTED] Draft, and the Iron Flow Battery document, except that the Provisional Specification and Provisional Drawings are relevant to preparing or considering the [REDACTED] Draft.

E Lack of relevance of the Fortescue Documents to other matters raised by Dr Kolodziejczyk

58. In paragraph 58 of his affidavit, Dr Kolodziejczyk states:

“I have not seen the documents referred to in paragraph 77 of Mr Huber’s affidavit to be able to verify what they are. Based on the titles of the documents and the timing of access, I believe it is likely that they related to the work I was undertaking in my final two weeks of employment at Fortescue (which included finalising documents relevant to patents for the Fortescue technology and other



processes relevant to the Fortescue technology and the "green" described above)."

59. I have been informed by DCCL and believe that the "documents referred to in paragraph 77 of Mr Huber's affidavit" in the above quote are the Fortescue Documents identified in paragraph 34 above.
60. In paragraph 38 of his affidavit, Dr Kolodziejczyk defines "**Fortescue technology**" as the "technology using electrochemical reduction of solid iron ore particles suspended in an electrolyte slurry, as described in Part C.3 of" my First Affidavit (paragraphs 46 to 53). In this affidavit, I refer interchangeably to the Fortescue technology as the Fortescue Process and/or Fortescue's electrochemical reduction process.
61. In paragraphs 39 and 40 of his affidavit, Dr Kolodziejczyk refers to two types of "green" technologies, "green cement" and "green hydrogen" technologies.
62. I have been asked by DCCL to express an opinion as to whether any of the Fortescue Documents are relevant to "*finalising documents relevant to patents for the Fortescue technology [as defined] and other processes relevant to the Fortescue technology and the "green" described above* ["green cement" or "green" hydrogen technologies]".
63. I have been asked to assume that the Emails are all the emails sent by Dr Kolodziejczyk to Mr Roper in October and November 2021 up to and including Dr Kolodziejczyk's last day (5 November 2021).
64. In my opinion, the only Emails that fall within the description "*finalising documents relevant to patents for the Fortescue technology [as defined] and other processes relevant to the Fortescue technology and the "green" described above* ["green cement" or "green" hydrogen technologies]" are the Emails in **Confidential Annexure AIB-45** and **Confidential Annexure AIB-46** (attaching the [REDACTED] Draft). This is because the Provisional Specification and the Provisional Drawings describe the Fortescue technology (as defined) and, as I have explained above at paragraph 55 above, the [REDACTED] Draft contains the text of the Provisional Specification.
65. I otherwise repeat what I have said in paragraphs 56(a) to 56(c) above about the relevance of the other Fortescue Documents to the [REDACTED] Draft.
66. None of the other Emails (that is, the Emails attaching the Iron Donor Electrode, Forecasting Algorithm, and Iron Flow Battery documents: **Confidential Annexure AIB-43, AIB-44, AIB-47, and Annexure AIB-48**) can properly be described as "*finalising documents relevant to patents for the Fortescue technology [as defined] and other processes relevant to the Fortescue technology and the "green" described above* ["green




cement” or “green” hydrogen technologies]” because they do not fall within the Fortescue technology (as defined), “green” cement, or “green” hydrogen technologies.

67. In addition, in my opinion, none of the Fortescue Documents are relevant to finalising documents relevant to patents for green cement or green hydrogen technologies for the following reasons.

E.1 Green cement

68. In my opinion, none of the Fortescue Documents are relevant to finalising documents relevant to patents for green cement, for the following reasons:

- (a) **Green Iron Update** — this document is a PDF copy of a slide deck prepared for a Green Iron Update meeting, and describes a Fortescue strategy for developing green iron in the Pilbara and discusses potential projects and partnerships. Green Iron Update has no relevance to green cement because it does not contain any information to develop a green cement technology. The Green Iron Update refers to gangue materials (silica and alumina), at page 5, which may be used to produce green cement, however the document does not include any information about how to do so. There is no mention of the word “cement” in the document. The Green Iron Update does not contain any information that would allow drafting of a patent on green cement.
- (b) **Provisional Specification; Provisional Drawings** — the Provisional Specification describes an invention of a method to produce iron from iron ore using only electricity. The Provisional Drawings contains the figures that are referred to in the Provisional Specification but are not present in that document. The Provisional Specification and Drawings are not relevant to “green cement”. There is no mention of the word “cement” in these documents. The Provisional Specification and Drawings do not describe any pathway for developing green cement technologies. The Provisional Specification refers to impurities in iron ore (alkali chlorides, alumina, silica and sulphur species) at page 4, lines 4-10, which may be used to produce green cement; however, the document does not provide any information about how to do so. The Provisional Specification and Drawings do not contain any information that would allow drafting of a patent on green cement.
- (c) **Basis of Design** — this is a draft document used as the basis for the detailed engineering of Fortescue’s pilot plant for its electrochemical iron ore reduction technology (the Fortescue Process) and describes the scope of the pilot plant and the limits for each section of the plant. The Basis of Design is not relevant to green

cement. There is no mention of the word “cement” in the document. The Basis of Design does not contain any information about how to produce green cement. The document refers to impurities in iron ore (silicates and aluminium oxides) at pages 17-18, which may be used to produce green cement; however, the document does not include any information about how to do so. The Basis of Design does not contain any information that would allow drafting of a patent on green cement.

- (d) **Bumblebee P&ID** — this is a bundle of draft P&IDs and concepts for Fortescue's pilot plant. The document informs the reader of where piping, instruments, and other equipment should be located. This bundle is not relevant to green cement. There is no mention of the word “cement” in this bundle. The P&IDs do not contain any details or designs for a green cement technology. The Bumblebee P&ID does not contain any information that would allow drafting of a patent on green cement.

E.2 Green hydrogen

69. In my opinion, none of the Fortescue Documents are relevant to finalising documents relevant to patents for green hydrogen, for the following reasons:

- (a) **Green Iron Update** — this document is a PDF copy of a slide deck prepared for a Green Iron Update meeting, and describes a Fortescue strategy for developing green iron in the Pilbara and discusses potential projects and partnerships. Green Iron Update has no relevance to green hydrogen because it does not contain any information to develop a green hydrogen technology. The Green Iron Update refers to iron ore processing technologies using green hydrogen as the gas for the DRI (Direct Reduced Iron) process (for example, at page 6); however, the document does not include any information about how to produce green hydrogen. Green Iron Update does not contain any information that would allow drafting of a patent on green hydrogen technologies.
- (b) **Provisional Specification; Provisional Drawings** — the Provisional Specification describes an invention of a method to produce iron from iron ore using only electricity. The Provisional Drawings contains the figures that are referred to in the Provisional Specification but are not present in that document. The Provisional Specification and Drawings are not relevant to green hydrogen technology. While the Provisional Specification mentions “hydrogen” at pages 6-7 and page 10, lines 9-12, neither reference is relevant to green hydrogen technology because the Provisional Specification only describes hydrogen as an (undesirable) by-product of the iron ore electrochemical process.




- (c) **Basis of Design** — this is a draft document used as the basis for the detailed engineering of Fortescue’s pilot plant for its electrochemical iron ore reduction technology (the Fortescue Process) and describes the scope of the pilot plant and the limits for each section of the plant. The Basis of Design is not relevant to green hydrogen technology. While the Basis of Design mentions “hydrogen” at pages 11 and 12, neither reference is relevant to green hydrogen technology because the Basis of Design refers to developing the Fortescue green iron pilot plant, not any green hydrogen pilot plant. The technologies are very different. In the Fortescue pilot plant hydrogen is an (undesirable) by-product of the iron ore electrochemical process. Green hydrogen could potentially be used as the energy source for the Fortescue Process, but this was not specified in the Basis of Design document. Rather, the Basis of Design leaves the identity of the energy source as “TBC” (pages 15).
- (d) **Bumblebee P&ID** — this is a bundle of draft P&IDs and concepts for Fortescue’s pilot plant. The document informs the reader of where piping, instruments, and equipment should be placed. The Bumblebee P&ID is not relevant to green hydrogen technology. My review of the Bumblebee P&ID did not reveal any mentions of “hydrogen”. The P&IDs do not contain any details or designs for a green hydrogen technology. The Bumblebee P&ID does not contain any information that would allow drafting of a patent on green hydrogen.

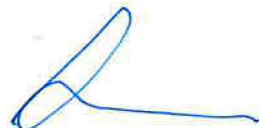
F Relevance of the Fortescue Documents to Element Zero

70. Insofar as Dr Kolodziejczyk is suggesting that the Fortescue Documents are not relevant to Element Zero’s activities then I disagree. In my opinion, for the reasons explained below, each of the Fortescue Documents would be useful in the design, engineering, construction, operation and/or feasibility of an electrochemical reduction (or ‘green iron’) pilot plant regardless of the fact that the electrochemical reduction process used by Element Zero is different to Fortescue’s electrochemical reduction process.
71. I understand that the electrochemical reduction process used by Element Zero to be an ionic process as I describe in Part F, and in particular paragraph 98, of my First Affidavit. In this affidavit, I refer to Element Zero’s electrochemical reduction process interchangeably as Element Zero’s process and/or Element Zero’s technology. In contrast, see paragraph 60 above in respect of Fortescue’s electrochemical reduction process/technology/process.
72. As for the Green Iron Update, I consider this document would be useful in developing a business plan for a competitor wishing to produce Green Iron, regardless of the particular



electrochemical reduction process used. In particular, the Green Iron Update contains details of competing technologies, names of suitable steel makers, and plans for Fortescue's strategy concerning Green Iron that could provide an advantage to a competitor.

73. As for the Provisional Specification and Provisional Drawings, these documents contain the key details of the Fortescue Process and would allow a competitor to position themselves ahead of researching and designing their own Green Iron electrochemical reduction process (that differs from the Fortescue Process), allowing them to identify an area for freedom to operate.
74. As for the Basis of Design, this document represents the fundamental first step that is required to be undertaken in an engineering project for an electrochemical reduction pilot plant regardless of the electrochemical reduction process to be used in that pilot plant. This specific Basis of Design would be useful for a competitor in designing and engineering its own electrochemical reduction pilot plant, and in particular could be used to identify and list the fundamental assumptions (e.g. feed, site-specific power etc.) with which the design team would need to contend when developing the engineering and scoping documents prior to construction.
75. As for the Bumblebee P&ID, I consider this document would be useful to a competitor in identifying the particular piping and circuitry useful for designing and constructing an electrochemical reduction pilot plant regardless of the electrochemical reduction process to be used in that pilot plant (given that aspects of the P&ID relate to other processes that need to be undertaken in a pilot plant). I have previously set out my assumptions concerning the Element Zero process in Part F of my First Affidavit. I consider that page 7 ([REDACTED]) of the P&ID could be useful in developing a dissolution circuit as is used by Element Zero. I also consider that page 8 ("Process Feed") could be useful in developing a plant – although some aspects are related to Fortescue's slurry process (e.g. the slurry tank) these could be modified to accommodate a dissolved electrolyte feed (as is used in Element Zero's process). For example, the iron ore storage slurry tank used in the Fortescue pilot plant could be replaced by an electrolyte feed tank, with the remaining fundamental piping work and instrument configuration otherwise remaining the same or with minimal modification. As to page 15 (by-product processing circuit), this tailings management circuit is linked with a leaching step, that allows the capture of iron ore impurities [REDACTED]. [REDACTED] I refer to paragraph 92(h) of my First Affidavit which contains an extract from Element Zero's website (the 'Element Zero technology page'), which indicates that

Element Zero is collecting “green cement precursors”, and would therefore require such a byproduct processing circuit.

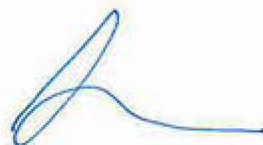
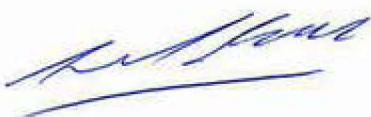
G Response to Dr Winther-Jensen’s affidavit

G.1 Response to paragraphs 23 and 28 of Dr Winther-Jensen’s affidavit

76. In paragraph 23 of his affidavit, Dr Winther-Jensen asserts that, between the date of his resignation (3 November 2021) and his last day at Fortescue (12 November 2021), he:
- (a) “briefed Ms [Rachelle] Doyle regarding [his] work relating to the ‘Green Iron’ project”;
 - (b) “briefed Dr Robert Kerr, who was to take over the practical and technical development in FFI’s [laboratory], on technical aspects, suppliers and plans regarding the flow-cell system”; and
 - (c) “assisted with finalising a leaching report by Dr Aabhash Shrestha”.
77. In paragraph 28 of his affidavit, Dr Winther-Jensen admits that he sent the five documents described in **Part I** of my First Affidavit to his personal email address “bjornwj@gmail.com” during the period 5 November 2021 to 11 November 2021. Dr Winther-Jensen asserts he did this only because he was concerned that he might lose access to Fortescue’s IT network and email before 12 November 2021 and “would be unable to properly hand over [his] work”.
78. The five documents Dr Winther-Jensen sent to his personal email address are:
- (a) Leaching Technical Report (**Confidential Annexure AIB-30**) — described in paragraphs 127 to 134 of my First Affidavit;
 - (b) Iron Ore Leaching Update (**Confidential Annexure AIB-32**) — described in paragraphs 135 to 141 of my First Affidavit;
 - (c) TEA Sheet and Email (**Confidential Annexure AIB-33**) — described in paragraphs 142 to 149 of my First Affidavit;
 - (d) Fortescue Green Iron Provisional Application (**Confidential Annexure AIB-34**) — described in paragraphs 142 to 149 of my First Affidavit;
 - (e) Green Iron Forum (1 November 2021) — which is described in paragraph 126 of my First Affidavit. Annexed and marked **Confidential Annexure AIB-49** is a copy of the Green Iron Forum document.

which I am informed by DCCL are identified in paragraph 20 of the ASOC.

79. At paragraph Dr Winther-Jensen asserts that he does not know what parts of the documents are confidential. I note that:
- (a) The Leaching Technical Report, the Iron Ore Leaching Update, and the TEA Sheet and Email each contain detailed, technical information concerning Fortescue's research and development program into green iron; being information that is not known outside of Fortescue and is confidential to Fortescue;
 - (b) The Fortescue Green Iron Provisional Application is now publicly available, however at the time it was emailed by Dr Winther-Jensen to himself, it had contained confidential information regarding Fortescue's invention;
 - (c) The Green Iron Forum document is marked 'strictly private and confidential' on each page.
80. DCCL has asked me whether anything in Dr Winther-Jensen's affidavit has caused me to reconsider the views I expressed in my First Affidavit that:
- (a) the Leaching Technical Report could be used in the design of an electrochemical reduction pilot plant that utilises a leaching circuit or process (being a process that removes impurities, with significantly less time and/or resources than would otherwise be needed in the absence of that document — at paragraph 133 of my First Affidavit;
 - (b) the Iron Ore Leaching Update could be used in the construction of an electrochemical reduction pilot plant that utilises a leaching circuit or process, with significantly less time and/or resources than would otherwise be needed in the absence of that document — at paragraph 141 of my First Affidavit;
 - (c) the TEA Sheet and TEA Email contain information that was useful for the design of an electrowinning pilot plant — at paragraph 149 of my First Affidavit.
81. Nothing in Dr Winther-Jensen's affidavit causes me to re-assess the views above, and I still do consider that each of the documents above would assist Dr Winther-Jensen (or any other recipient of these documents) in pursuing a research and development project in relation to the purification of iron ore utilising electrochemical reduction (at paragraph 122 of my First Affidavit), being a project related to the design, engineering, construction, operation and/or feasibility of a pilot plant for the electrochemical reduction of iron ore. This is regardless of the fact that the electrochemical reduction process used by Element Zero is different to the electrochemical reduction process used by Fortescue.



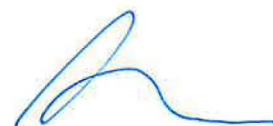
82. I have also reviewed the Green Iron Forum document (**Confidential Annexure AIB-49**, to which I have previously referred in paragraph 126 of my First Affidavit). It is apparent to me that this document contains information useful to Element Zero to assist in building a business case for an electrochemical reduction pilot plant, regardless of the particular electrochemical reduction process used by that plant.

G.2 Handover activities

83. I have been asked by DCCL to express an opinion whether any of the documents in paragraph 78 above were also relevant to the asserted handover activities in paragraph 76 above.

G.2.1 Alleged briefing to Rachelle Doyle

84. I am aware that Ms Rachelle Doyle led the Green Iron R&D and engineering teams after Dr Kolodziejczyk left in October 2021. That remained the case until I joined Fortescue in January 2022, after which I led the Green Iron R&D team. Ms Doyle left Fortescue a few months after I joined.
85. In my opinion, none of the documents in paragraph 78 above were relevant to any briefing by Dr Winther-Jensen to Ms Doyle regarding his (Dr Winther-Jensen's) work relating to the Green Iron project, for the following reasons:
- (a) Having reviewed Dr Winther-Jensen's emails (paragraphs 120-121 of my First Affidavit), I cannot find any briefing email from Dr Winther-Jensen to Ms Doyle about the documents in paragraph 78 above;
 - (b) Both Dr Winther-Jensen and Ms Doyle received each of the following documents from other employees of Fortescue on 31 October 2021, 1 November and 8 November (the first two dates occurring before Dr Winther-Jensen's asserted handover period) and therefore I do not infer these could be the subject of any handover by Dr Winther-Jensen to Ms Doyle regarding Dr Winther-Jensen's work:
 - (i) the Leaching Technical Report (**Confidential Annexure AIB-30**),
 - (ii) the Iron Ore Leaching Update (**Confidential Annexure AIB-32**), and
 - (iii) the Green Iron Forum (**Confidential Annexure AIB-49**);
 - (c) the Leaching Technical Report (**Confidential Annexure AIB-30**) and Iron Ore Leaching Update (**Confidential Annexure AIB-32**) describe work done by Dr Aabhash Shrestha, not by Dr Winther-Jensen, as discussed in paragraph 89 below;



- (d) the TEA Sheet and Email (**Confidential Annexure AIB-33**) was, on the face of the document, work done by David White (from the Green Iron engineering team) at Ms Doyle's specific request, not work done by Dr Winther-Jensen or at his request;
- (e) the TEA Sheet and Email are engineering documents. As Dr Winther-Jensen states at paragraph 15 of his affidavit, his responsibilities relate to research and reporting research, not engineering. There is no legitimate reason why he would need to forward these documents to himself as part of his role;
- (f) Ms Doyle could have obtained the Fortescue Green Iron Provisional Application (**Confidential Annexure AIB-34**) from Mr Roper, in his role as Intellectual Property Manager; and
- (g) the Green Iron Forum (**Confidential Annexure AIB-49**) does not mention Dr Winther-Jensen except a passing reference on page 7.

G.2.2 *Alleged briefing to Dr Robert Kerr*

86. I am aware that Dr Kerr was one of three scientists working under Dr Winther-Jensen in FFI's laboratory in UWA during the period June 2021 to November 2021, working on electrolyser development. Dr Kerr has since left Fortescue.
87. In my opinion, none of the documents in paragraph 78 above was relevant to any briefing by Dr Winther-Jensen to Dr Kerr, "who was to take over the practical and technical development in FFI's [laboratory], on technical aspects, suppliers and plans regarding the flow-cell system", because:
- (a) the Leaching Technical Report (**Confidential Annexure AIB-30**) and Iron Ore Leaching Update (**Confidential Annexure AIB-32**) concerned a set of leaching experiments, and not the flow-cell system (the flow reactor depicted in paragraph 50 of my First Affidavit);
 - (b) the TEA Sheet and Email (**Confidential Annexure AIB-33**) did not concern anything at laboratory scale, but rather (as the TEA Email states) a much larger scale: a production level of 60,000 tonnes of iron per day;
 - (c) the matters in paragraph 85(e) above;
 - (d) Dr Winther-Jensen sent the Fortescue Green Iron Provisional Application to Dr Kerr *before* Dr Winther-Jensen sent the document to himself (**Confidential Annexure AIB-34**), so Dr Kerr already had the application; and

- (e) As a junior scientist, Dr Kerr was not at the level of seniority to be an attendee at the meeting at which the Green Iron Forum (**Confidential Annexure AIB-49**) was presented. This is confirmed by the covering email, which does not include Dr Kerr as a recipient of the slides.

G.2.3 Allegedly assisting Dr Shrestha finalise the Leaching Technical Report

88. I am aware that Dr Shrestha was one of three scientists working under Dr Winther-Jensen in FFI's laboratory in UWA, working on leaching, during the period July 2021 to November 2021. As stated in paragraph 132 of my First Affidavit, Dr Shrestha has since left Fortescue.
89. In my opinion, none of the documents in paragraph 78 above was relevant to assisting Dr Shrestha finalise the Leaching Technical Report because:
- (a) the Leaching Technical Report (**Confidential Annexure AIB-30**) was circulated on 8 November 2021 as a first draft ("Rev #1"), without Dr Winther-Jensen's formal approval;
 - (b) the second draft of the Leaching Technical Report was not dated until 29 December 2021, more than a month after Dr Winther-Jensen left Fortescue. Shown to me and marked **Confidential Annexure AIB-50** is a copy of the second draft of the Leaching Technical Report;
 - (c) based on my conversations with Dr Shrestha while he was still at Fortescue, the Leaching Technical Report was never finalised. If it had been finalised, the report would have needed my approval, and I would have known about its finalisation;
 - (d) I have found (among Dr Winther-Jensen's emails) emails from Dr Winther-Jensen to Dr Shrestha in October-November 2021, attaching details of Dr Winther-Jensen's leaching experiments. **Confidential Annexure AIB-51** are these emails and their attachments. These leaching experiments by Dr Winther-Jensen were not the same experiments described in the Leaching Technical Report (conducted by Dr Shrestha), because Dr Winther-Jensen's experiments [REDACTED] and [REDACTED]
 - (e) I have reviewed the minutes of a FFI Innovation Centre Weekly Meeting on 9 November 2021. **Confidential Annexure AIB-52** are those minutes. Dr Winther-Jensen is recorded as being present, as is Dr Shrestha. The only item relevant to Dr Winther-Jensen is an electrode material development report, for which he is responsible together with Dr Sienna Mohammadzadehmoghadam. The




minutes also record Dr Shrestha's moving on to the next iteration of his leaching experiments.

G.3 Response to paragraphs 32–34 of Dr Winther-Jensen's affidavit (SharePoint documents)

90. In paragraph 32 of his affidavit, Dr Winther-Jensen asserts that the SharePoint folder which I reviewed in paragraphs 112 to 118 of my First Affidavit was only set up "five or seven weeks before" he ceased to work for Fortescue on 12 November 2021 (that is, between 24 September 2021 and 8 October 2021).
91. I am informed by Russell Whitfield, SharePoint Specialist at Fortescue's IT department, and believe that the SharePoint folder was created on 19 August 2021.
92. I note Dr Winther-Jensen does not deny in paragraph 33 of his affidavit that he had access to the SharePoint folder during his employment. He asserts that the folder contains substantial information that could not be said to be confidential. The documents identified in **Annexure AIB-29** to my First Affidavit are confidential Fortescue research, development, engineering and Green Iron business documents, and not "*published scientific papers and reports*" (with the exception of third party authored documents, being 1st, 2nd and 5th bullet points under the heading "equipment suppliers" on page 187 of my First Affidavit which may or may not be confidential to those third parties).
93. In paragraph 34 of his affidavit, Dr Winther-Jensen responds to paragraph 118 of my First Affidavit and denies the SharePoint documents in **Annexure AIB-29** have any relevance to Element Zero because of the differences in Fortescue's and Element Zero's technology i.e. the differences in the electrochemical reduction processes used by Fortescue as compared with the process used by Element Zero as I have previously considered in Part F of my First Affidavit.
94. Insofar as Dr Winther-Jensen is suggesting that the differences in the technologies mean that my analysis concerning the SharePoint documents is inaccurate, I disagree. I took the differences between the two companies' processes into account in expressing my opinion in paragraph 118 of my First Affidavit that the SharePoint documents in **Annexure AIB-29** "*would be of particular value in progressing a competing research and development project in relation to the purification of iron ore utilising electrochemical reduction*" being a project that relates to the design, engineering, construction, operation and/or feasibility of an electrochemical reduction pilot plant. The SharePoint documents in **Annexure AIB-29** are relevant to such a project because they provide templates, frameworks, parameters, equipment supplier contacts, cost estimation information and the like, which have value

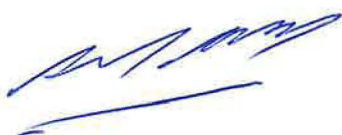


regardless of the fact that electrochemical reduction process used by Element Zero is different to that used by Fortescue.

95. Nothing in Dr Winther-Jensen's affidavit causes me to reconsider the views I expressed in my First Affidavit that the SharePoint documents would be useful for a research and development project, for the design, engineering, construction, operation and/or feasibility of an electrochemical reduction pilot plant, as set out above and in paragraph 118 of my First Affidavit. As set out in Annexure AIB-29, I considered each of those documents would assist in either "*designing a pilot plant and choosing the basis of design parameters*", preparing "*detailed design[s] of a pilot plant*", identifying "*suppliers to provide parts and components for a pilot plant*", as well as assessing the business techno-economics, research and development requirements, and business plans associated with that project. This is independent of the differences between the two companies' processes: even though the processes are different, the methodology for building an electrochemical reduction pilot plant would be the same or similar. The documents in SharePoint (for example, relating to filtration equipment, information concerning ore properties/ compositions, and comminution circuits) would be useful for research, design, engineering and/or construction of an electrochemical reduction pilot plant regardless of the particular electrochemical reduction process used by the pilot plant.

G.4 Fortescue's procedures and specifications

96. In paragraph 35 of his affidavit, Dr Winther-Jensen asserts that he was not aware that he had access to the Fortescue procedures and specifications in paragraph 103 of Mr McFaull's affidavit (which paragraph I have read). I am aware from my work at Fortescue that the Fortescue's procedure and specification documents are contained on Fortescue's document management system named PIMS, being a system I understand is generally made available to Fortescue employees. I am informed by Tim Woodward (Document Control Systems Lead at Fortescue) and believe that Dr Winther-Jensen had access to the Fortescue procedures and specifications via PIMS since 12 February 2021, and that he accessed the system on 10 September 2021.
97. Also in paragraph 35, Dr Winther-Jensen asserts that he does not know what is said to be confidential in Fortescue's procedure and specification documents. To the extent Dr Winther-Jensen is suggesting that such documents, contained on the PIMS system, are not confidential documents, I disagree. I am aware from my own use of PIMS that the system is password protected and requires a login using a Fortescue account. Fortescue's procedures and specifications uploaded onto that system are valuable, confidential internal documents that provide guidance and best practice in respect of engineering,



safety and standards (amongst other Fortescue operational documents). They are developed internally at Fortescue for Fortescue's use across all areas of its operations.

98. Further, insofar as Dr Winther-Jensen is suggesting that Fortescue's procedures and specifications documents would not be useful in designing and constructing an electrochemical reduction pilot plant, I disagree. The procedures and specifications documents provide guidance and best practice for how to construct such a pilot plant, identifying the standards and regulations that need to be adhered to; identifying best practice for materials selection and construction; best practice for safety; and so forth. This is regardless of the fact that the electrochemical reduction process used by Element Zero is different to that used by Fortescue.

G.5 Responses to paragraphs 37 and 47 of Dr Winther-Jensen's affidavit (Assumptions)

99. In paragraph 37 and 47 of his affidavit, Dr Winther-Jensen asserts that I made some wrong assumptions about the Element Zero process. I deny making the wrong assumptions he contends, for the following reasons.
100. As to Element Zero's leaching agent, I did not make any assumption that Element Zero's leaching step was "similar or identical to the water-based chemical leaching process researched by Fortescue". I refer to what I said in paragraph 99 of my First Affidavit.
101. As to the alleged difference between "ionic liquid" and "molten hydroxide", I refer to what I said in paragraphs 37 to 44 of my First Affidavit. I took Element Zero's temperature into account: see paragraphs 92(f) and 98(b) of my First Affidavit.
102. As to batch-processing, I did observe that Element Zero's process was a batch-based electrowinning process. I refer to what I said in paragraphs 35 and 98(e) of my First Affidavit.

H Response to paragraph 41 of Dr Kolodziejczyk (Dr Sienna Mohammadzadehmoghadam)

103. In paragraph 41 of his affidavit, Dr Kolodziejczyk asserts that Dr Sienna Mohammadzadehmoghadam knew what work he did during his employment.
104. I am aware that Dr Mohammadzadehmoghadam was one of three scientists working under Dr Winther-Jensen (the other two being Dr Kerr and Dr Shrestha, discussed above) during the period from April 2021 until when Dr Winther-Jensen and Dr Kolodziejczyk resigned in November 2021. I am informed by Dr Mohammadzadehmoghadam, and believe, that although Dr Kolodziejczyk was her line manager, Dr



Mohammadzadehmoghadam reported to Dr Winther-Jensen and did not work directly with Dr Kolodziejczyk.

105. In any event, I am aware that:

- (a) Dr Mohammadzadehmoghadam started at FFI in April 2021 as a junior engineer. April 2021 is after the date of the emails I reviewed in Part D of my First Affidavit (paragraph 56 to 84) referring to the Ionic Process; and
- (b) Dr Mohammadzadehmoghadam was based at FFI's laboratory at UWA. While Dr Kolodziejczyk had access to FFI's laboratory, he was not exclusively based there.

Affirmed by Dr Anand Indravadan Bhatt
at Balcatta
in Western Australia
on 1 August 2024
Before me:

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)
)
)
)

Signature of Dr Anand Indravadan Bhatt

Signature of witness

Adrian Shane Huber
An Australian Legal Practitioner
within the meaning of the
Legal Profession Uniform Law (WA)

No. NSD527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

FORTESCUE LIMITED (ACN 002 594 872) and others

Applicants

ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

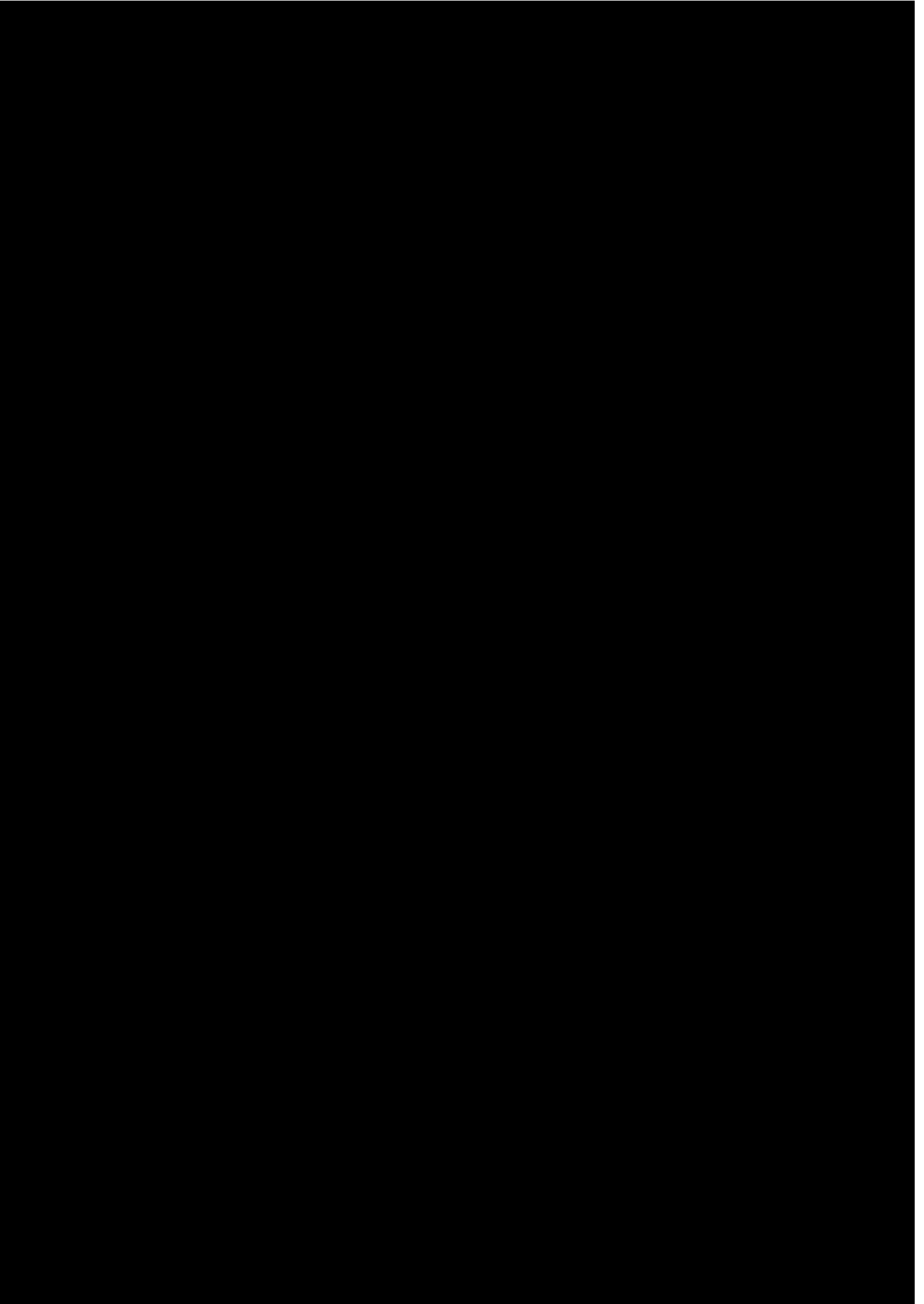
Respondents

CONFIDENTIAL ANNEXURE AIB-38

This is the confidential annexure marked **AIB-38** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me: 





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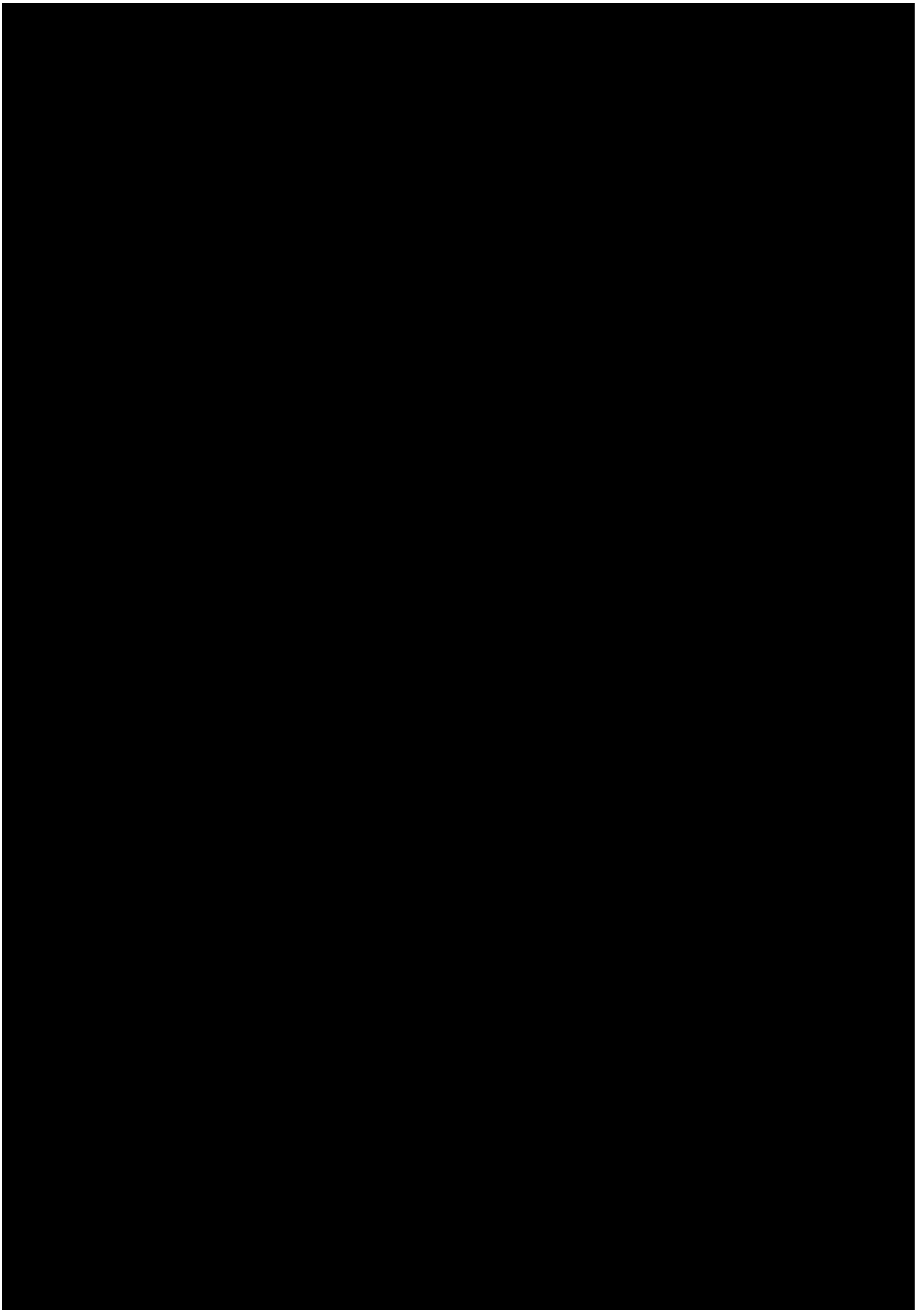
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

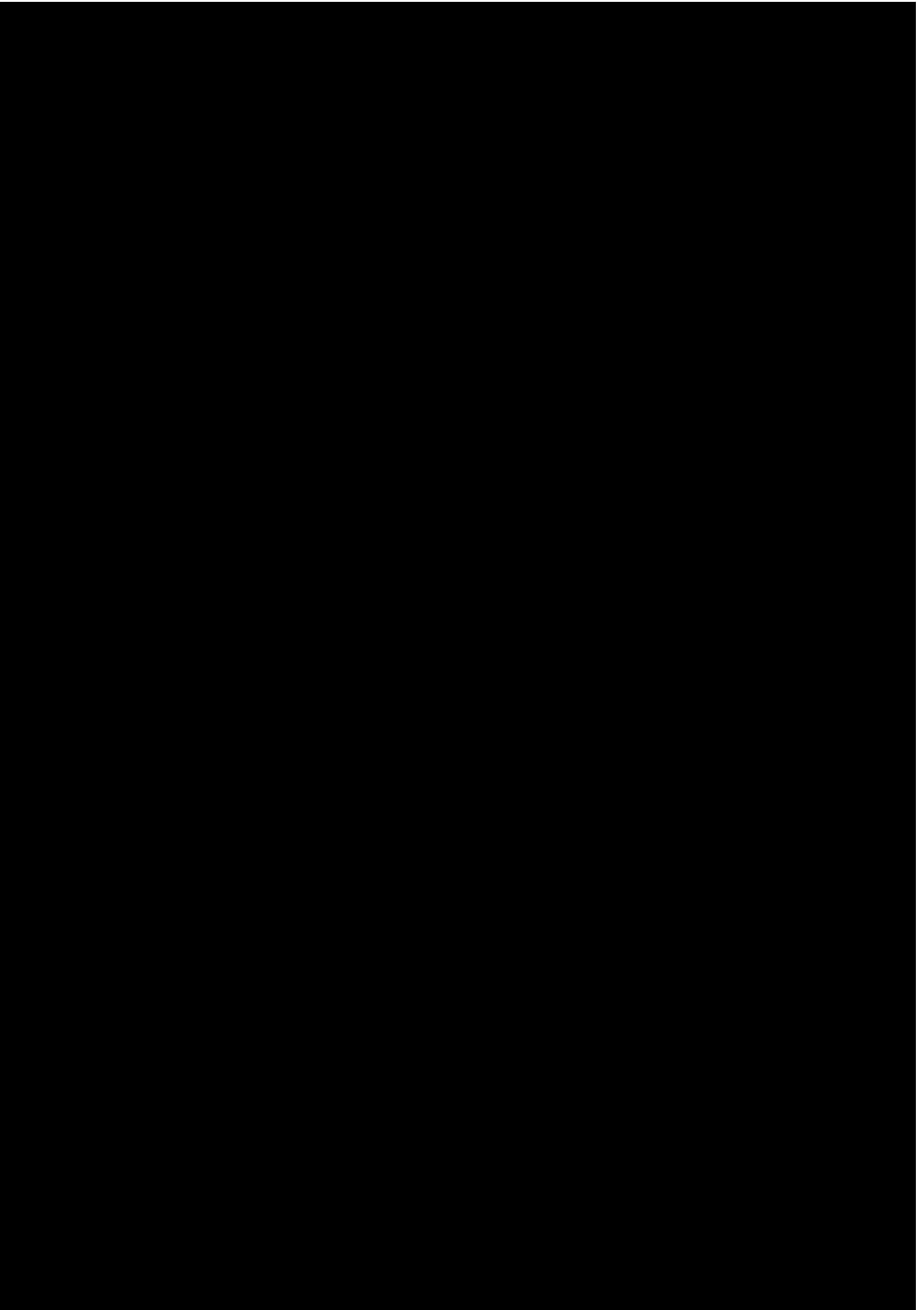
Respondents

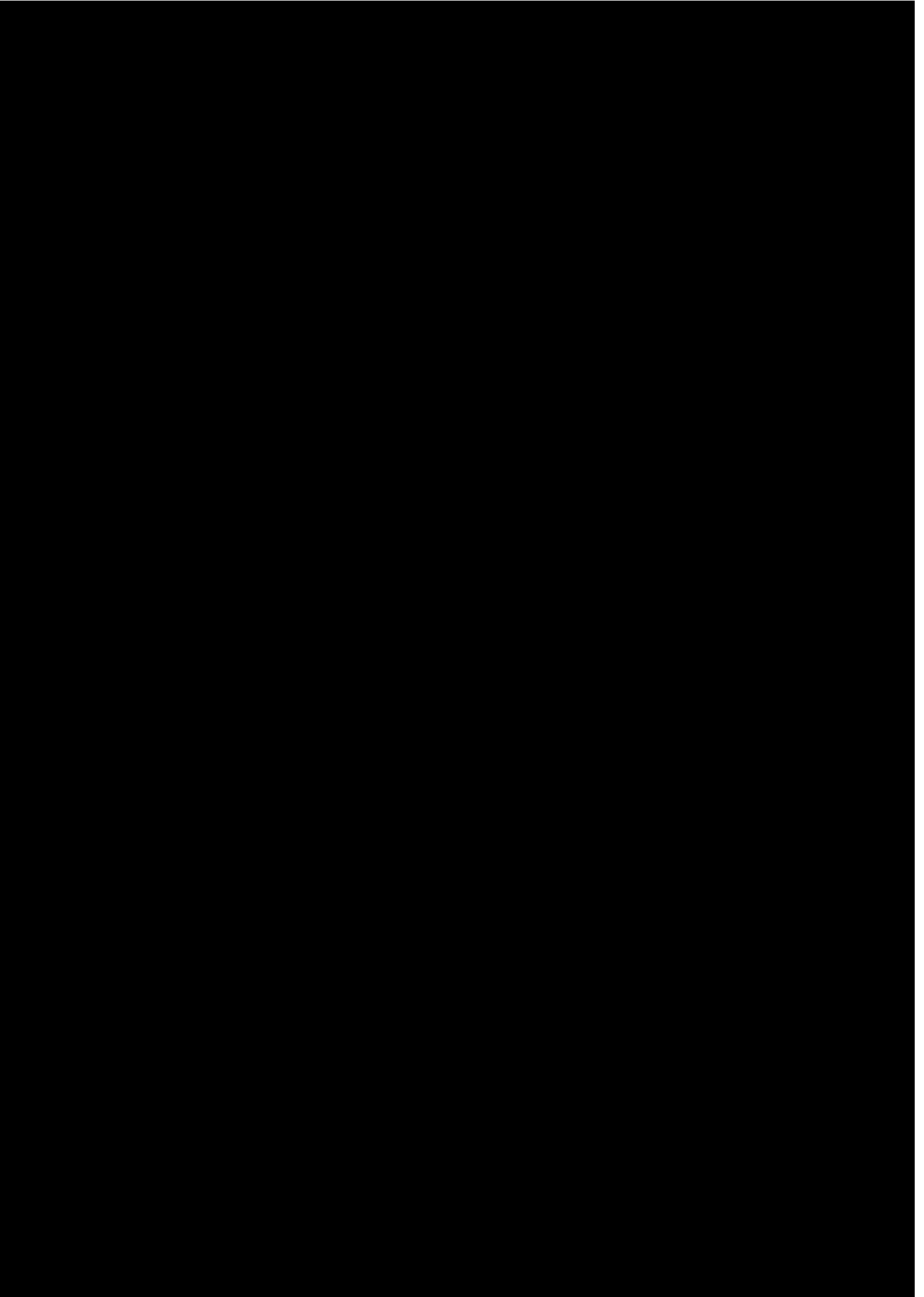
CONFIDENTIAL ANNEXURE AIB-39

This is the confidential annexure marked **AIB-39** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me: 







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Federal Court of Australia
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Applicants

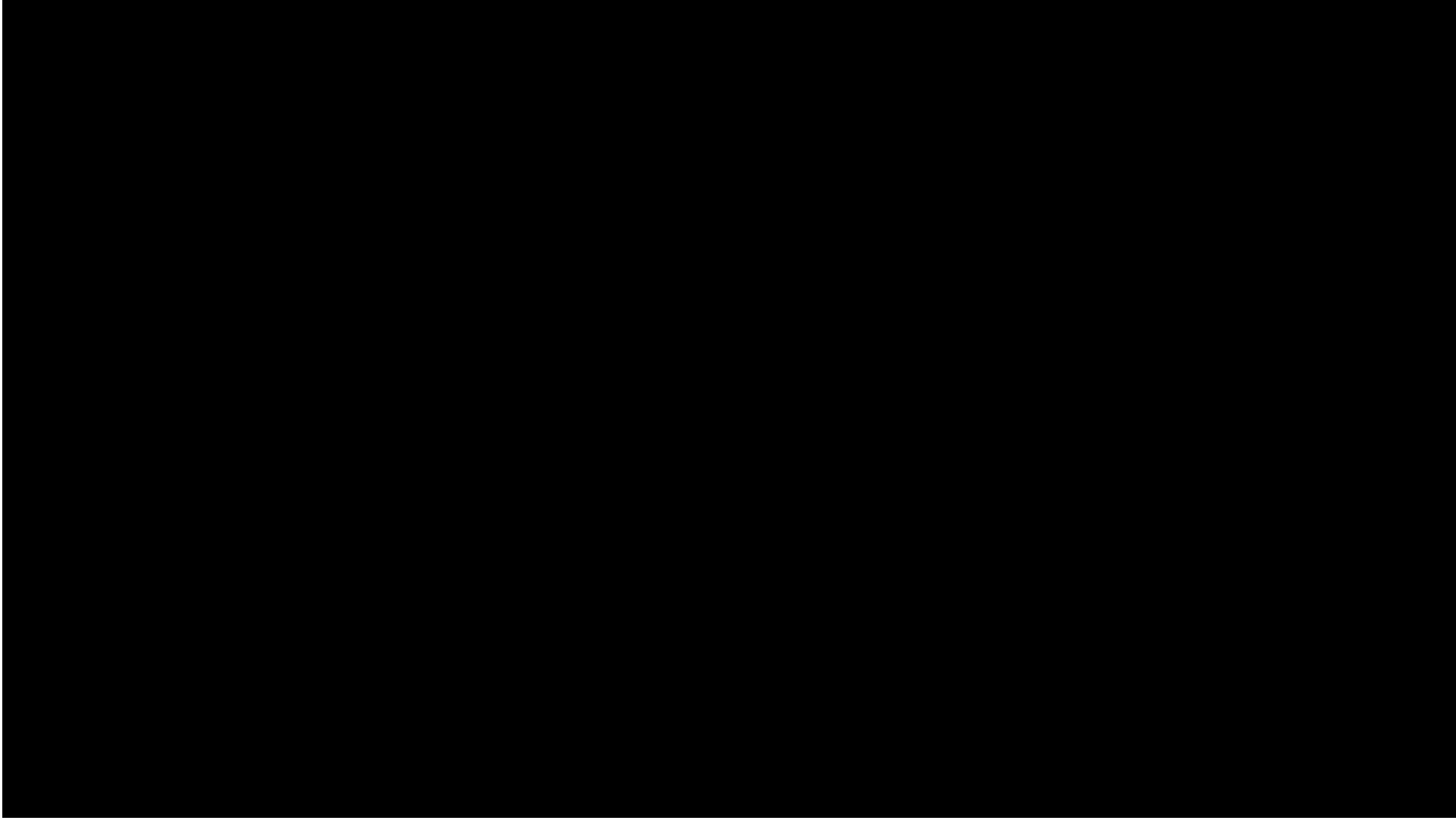
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

Respondents

CONFIDENTIAL ANNEXURE AIB-40

This is the confidential annexure marked **AIB-40** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me: 



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Applicants

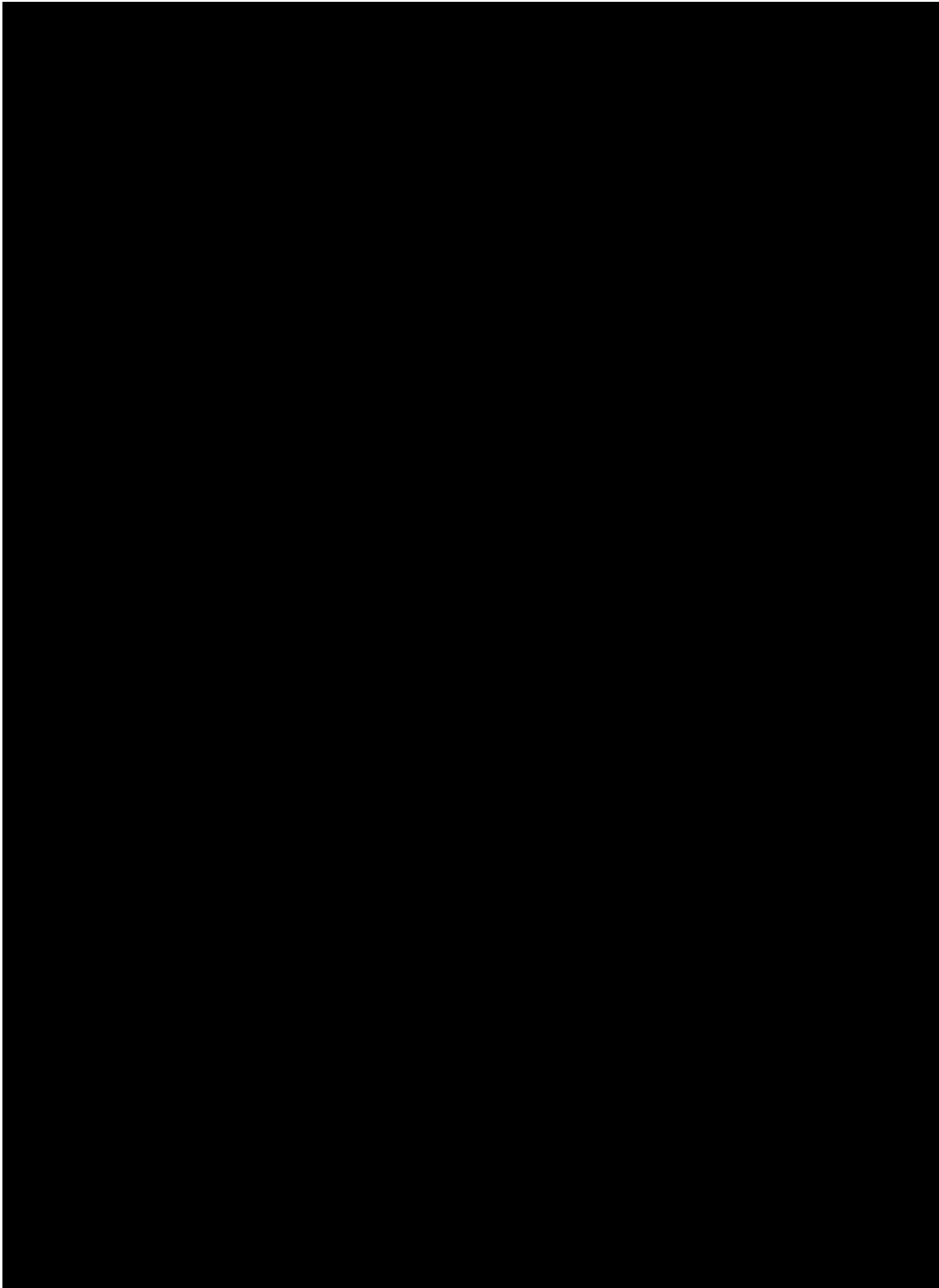
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

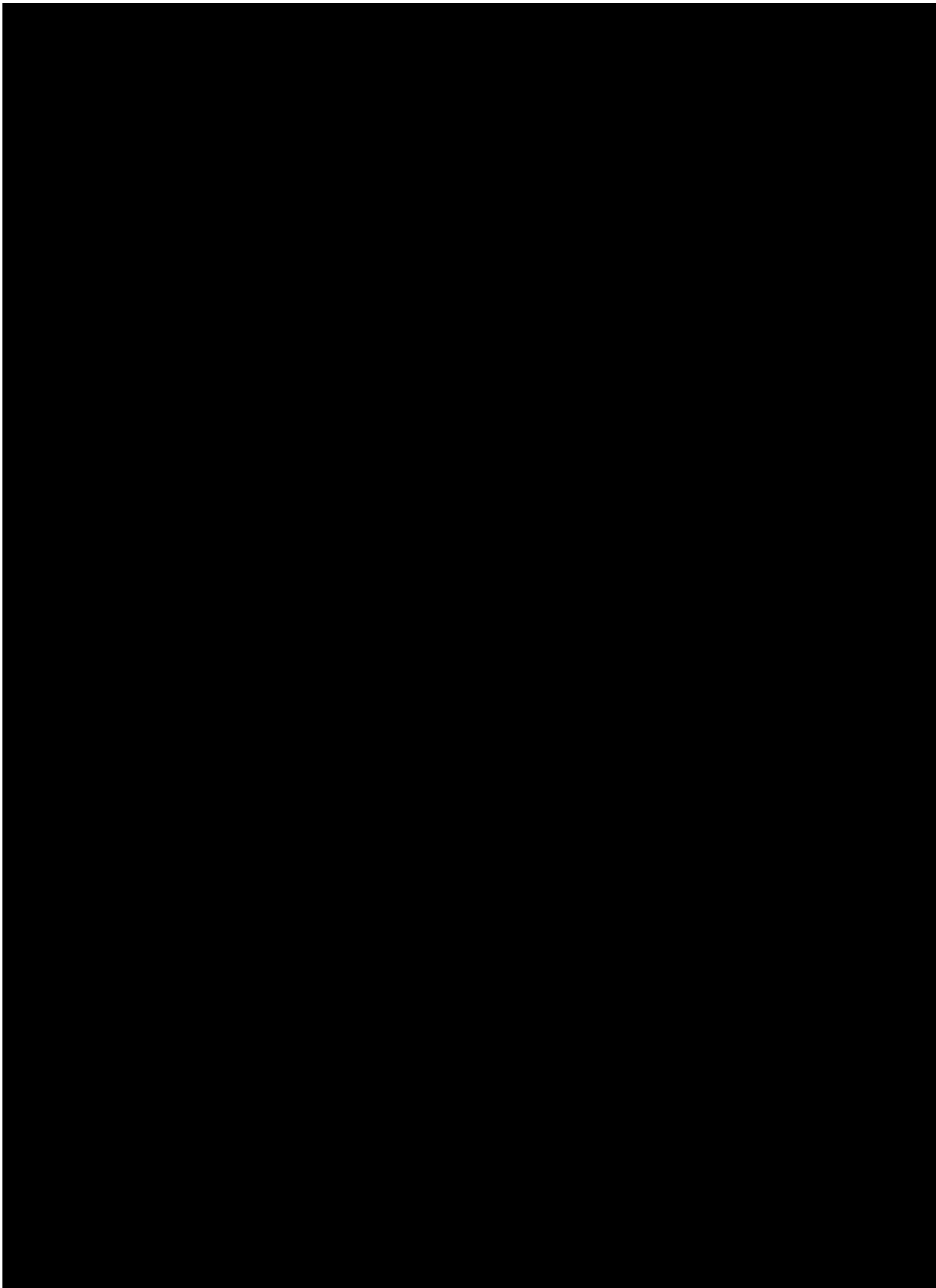
Respondents

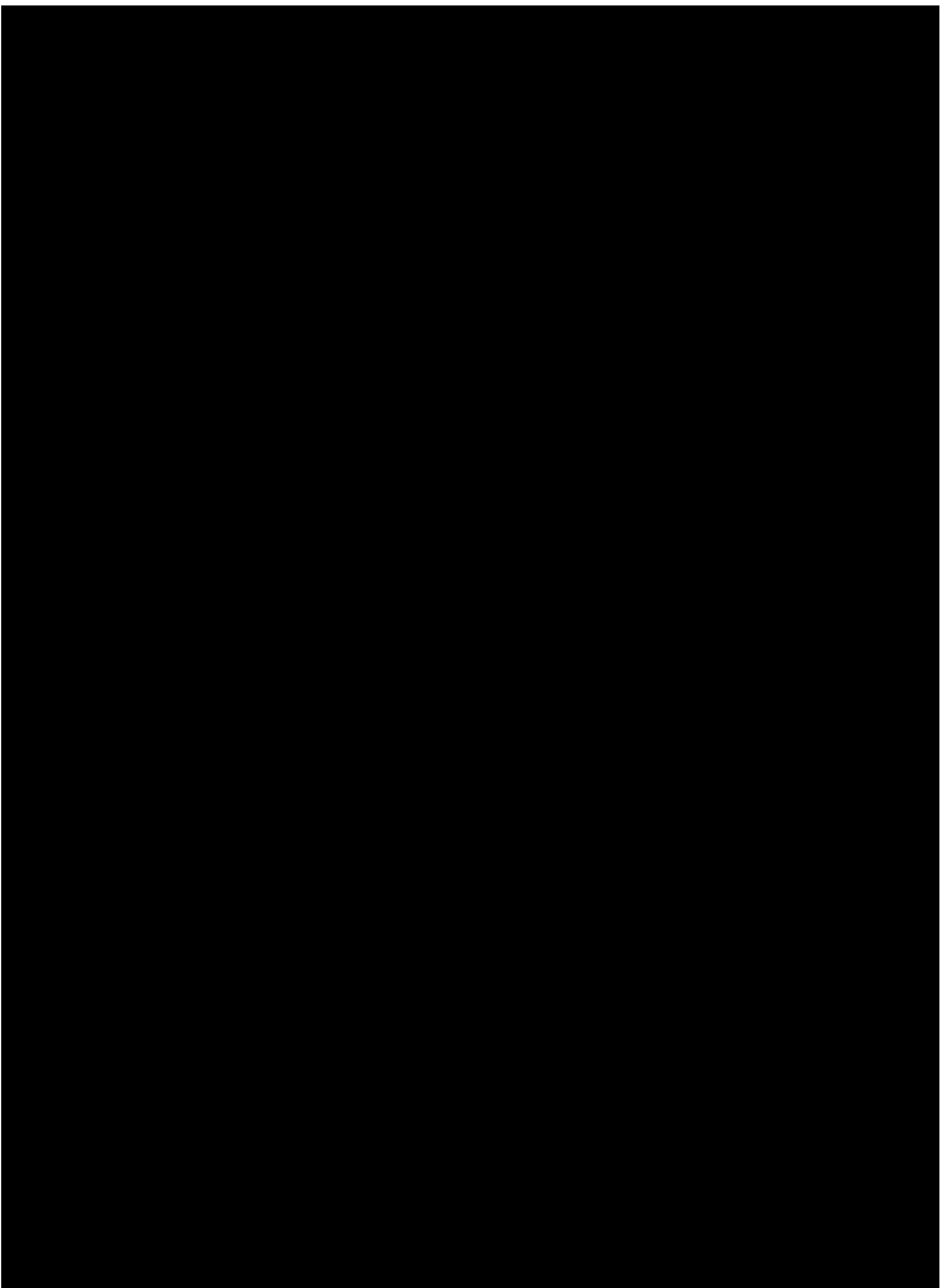
CONFIDENTIAL ANNEXURE AIB-41

This is the confidential annexure marked **AIB-41** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

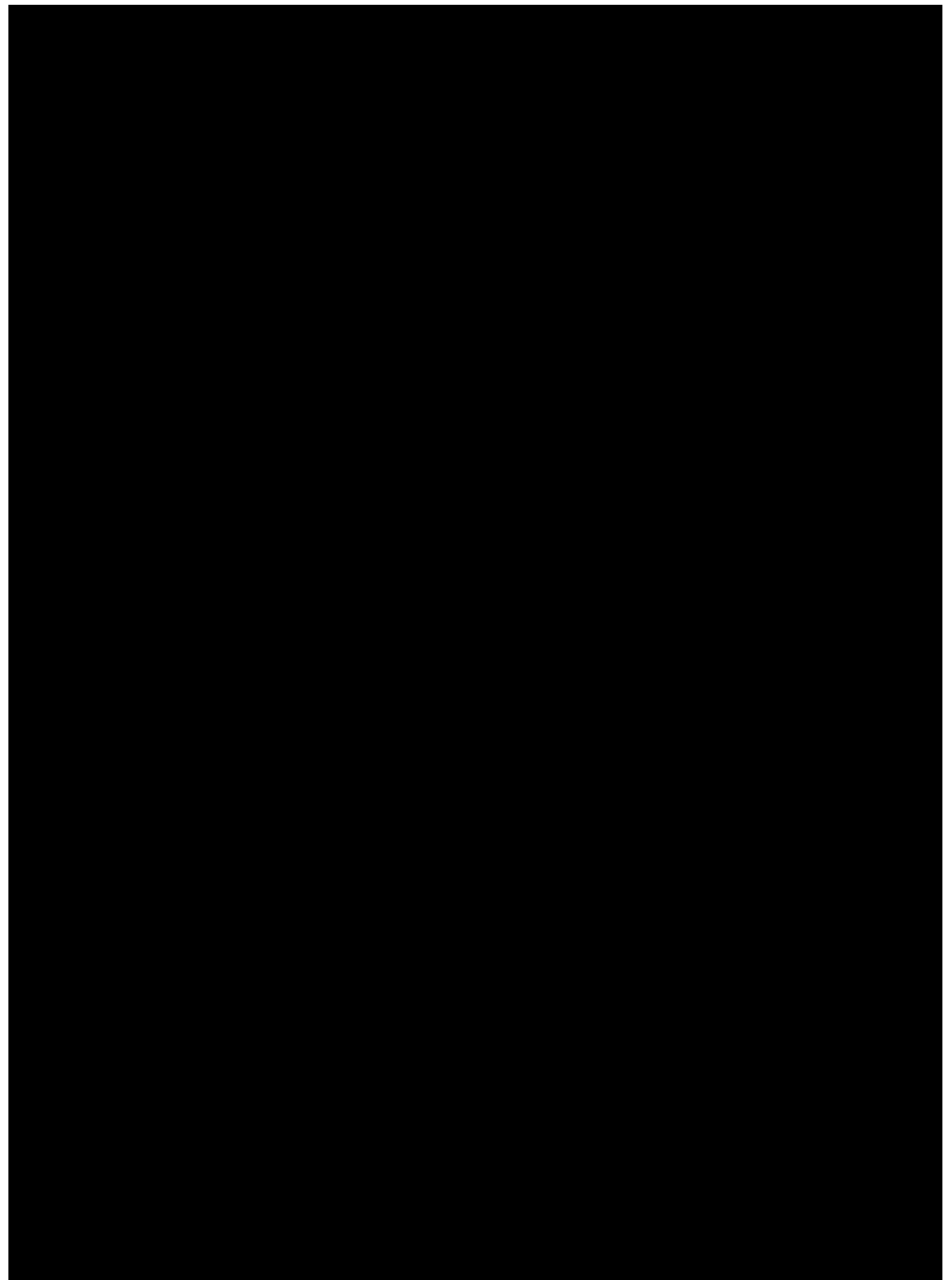
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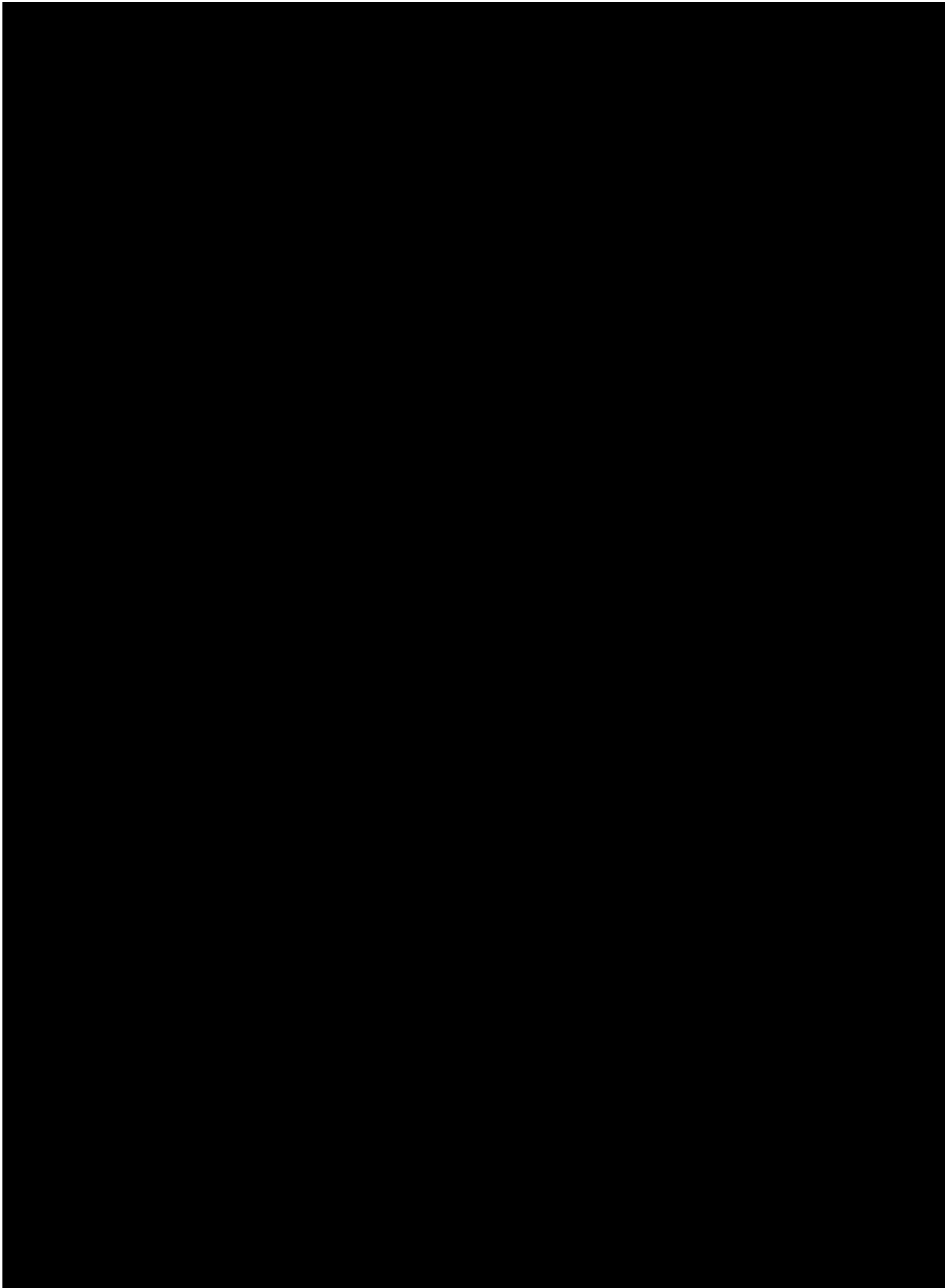


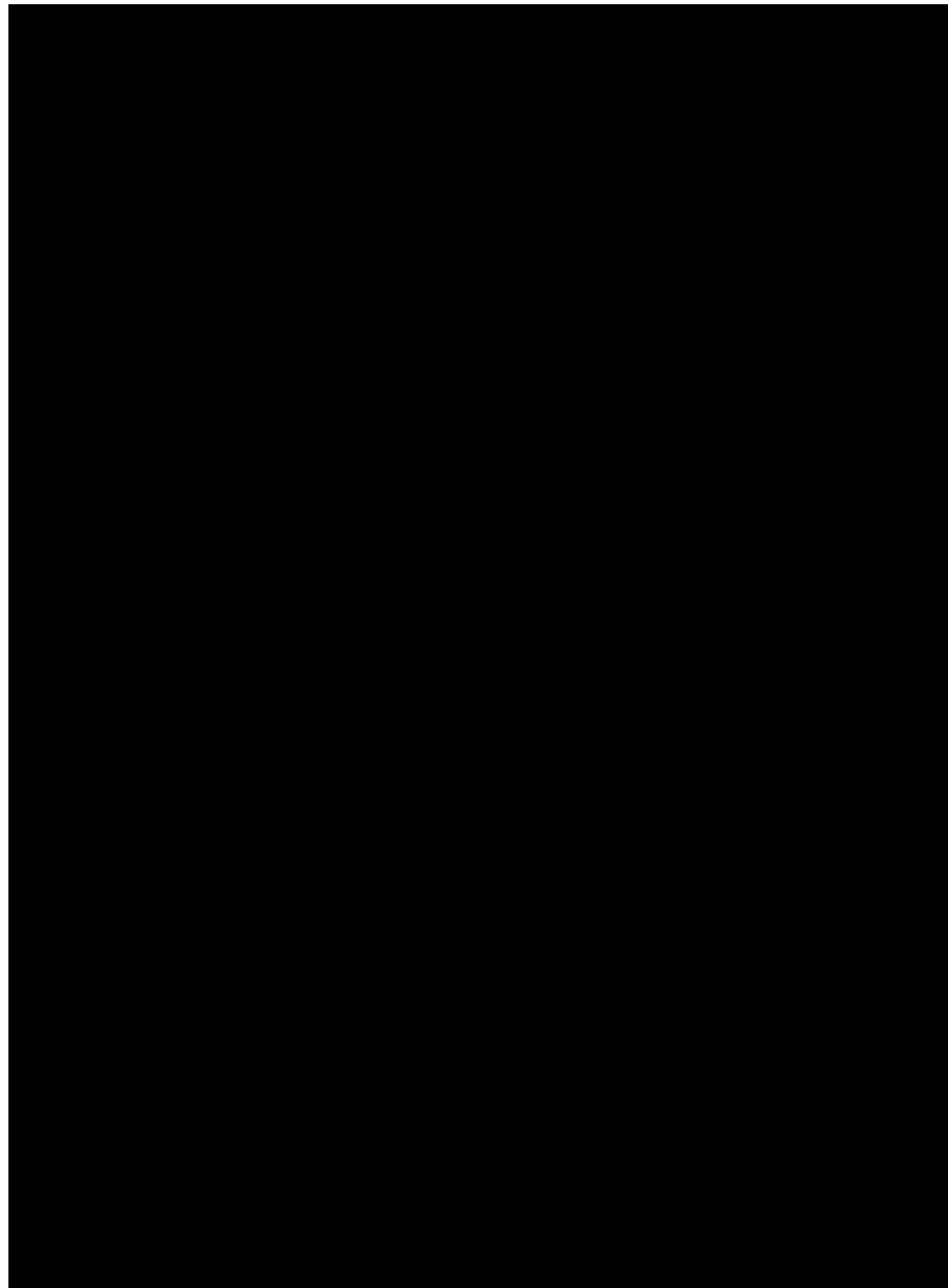


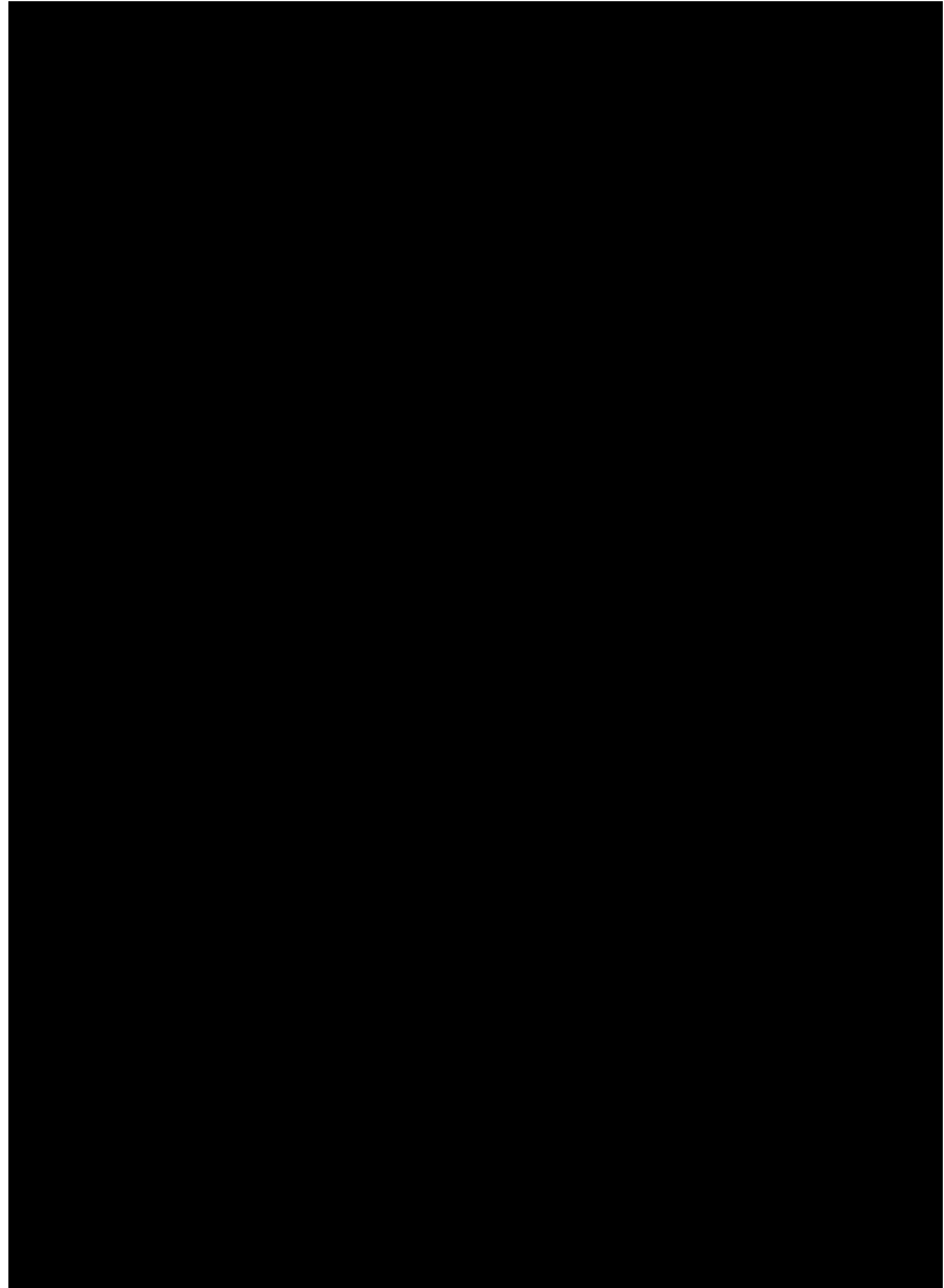


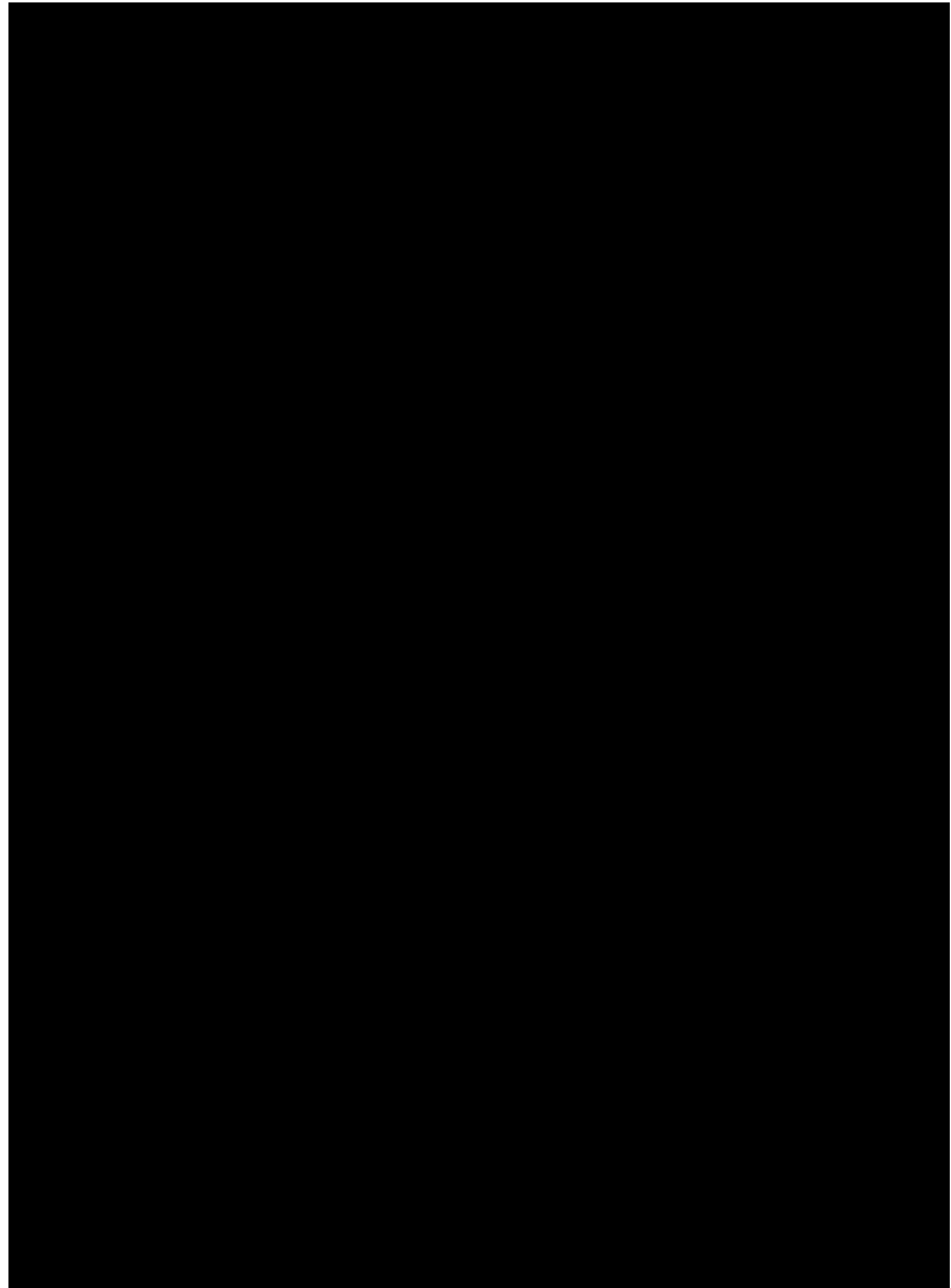


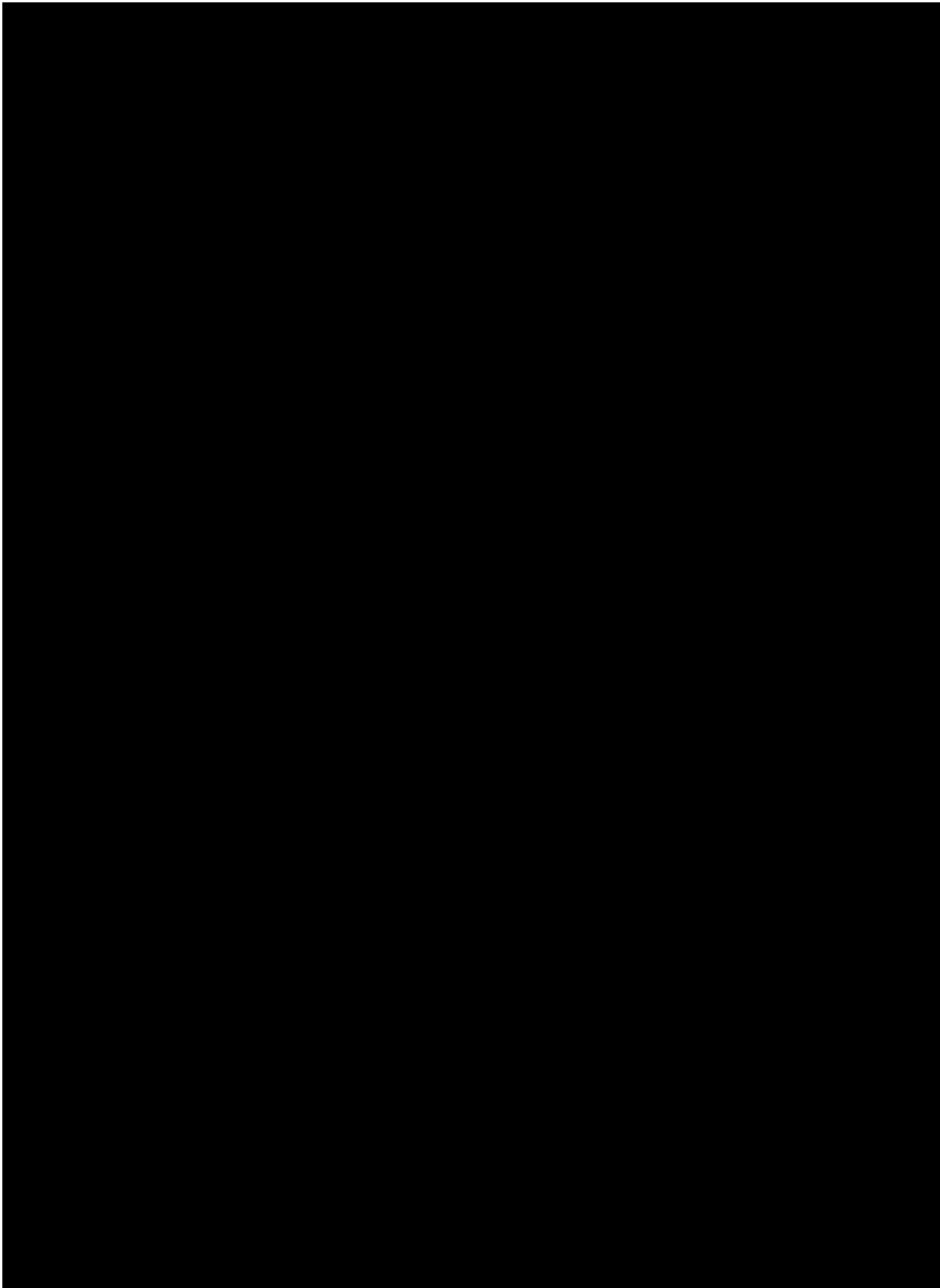


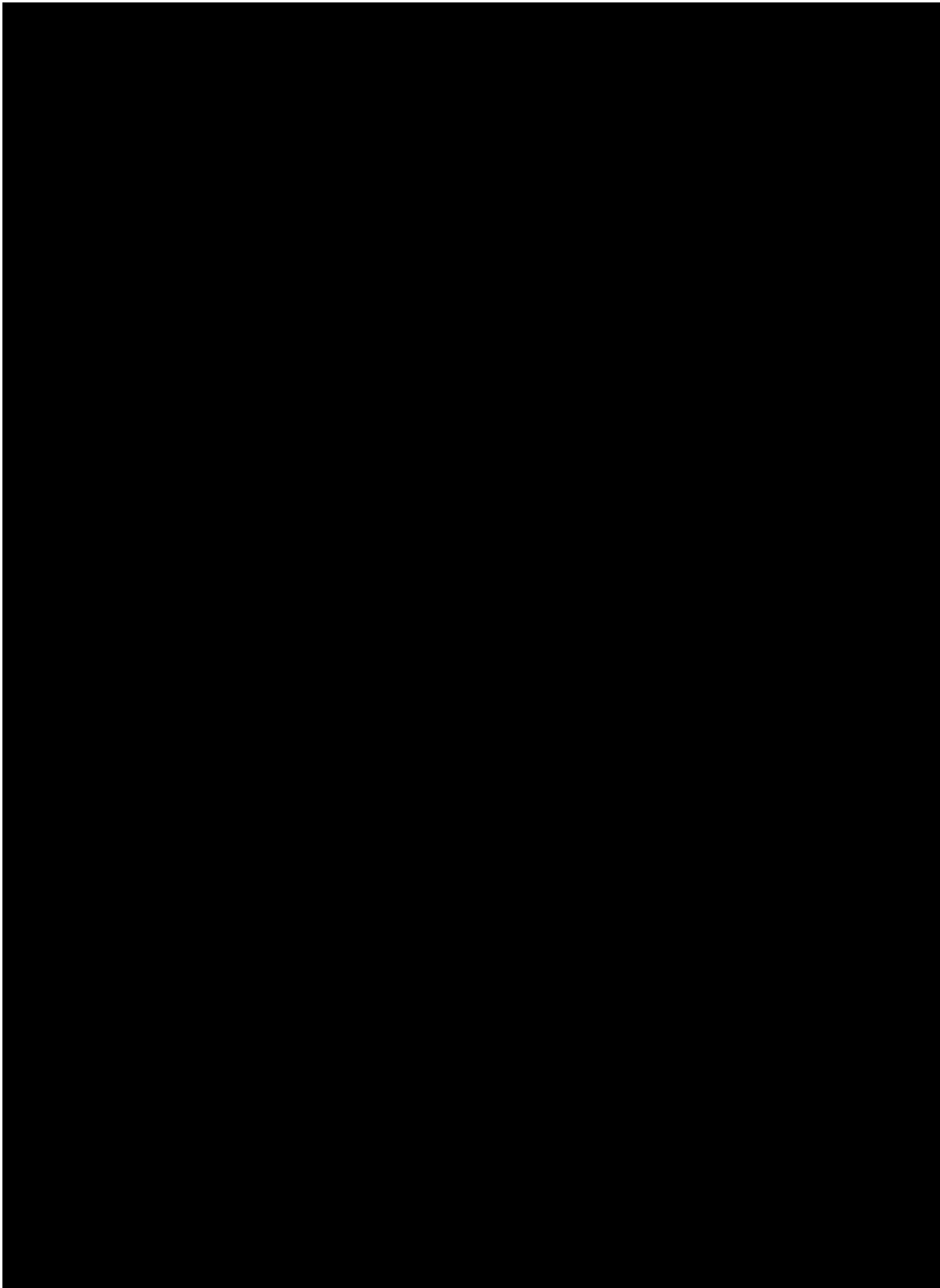


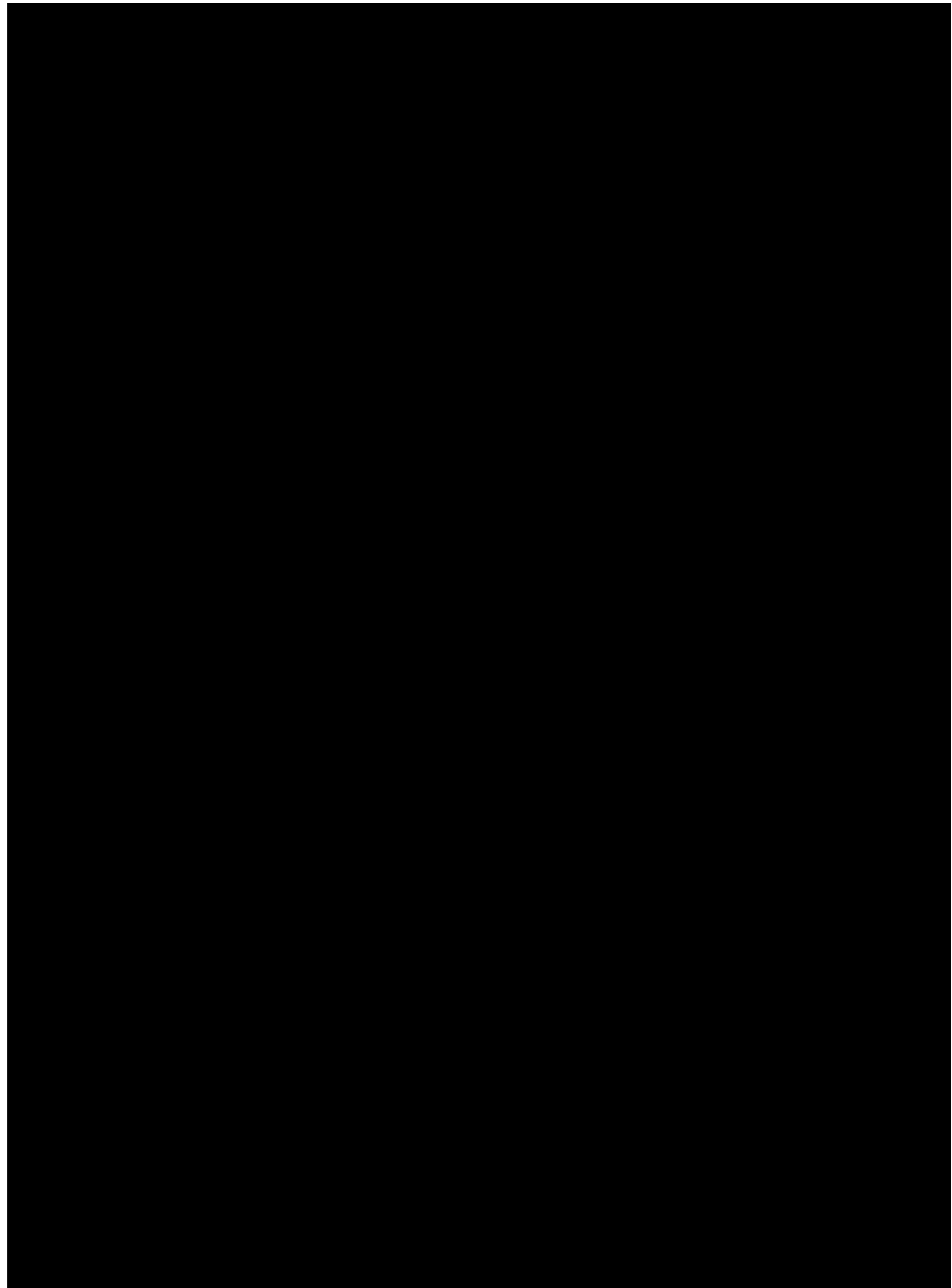


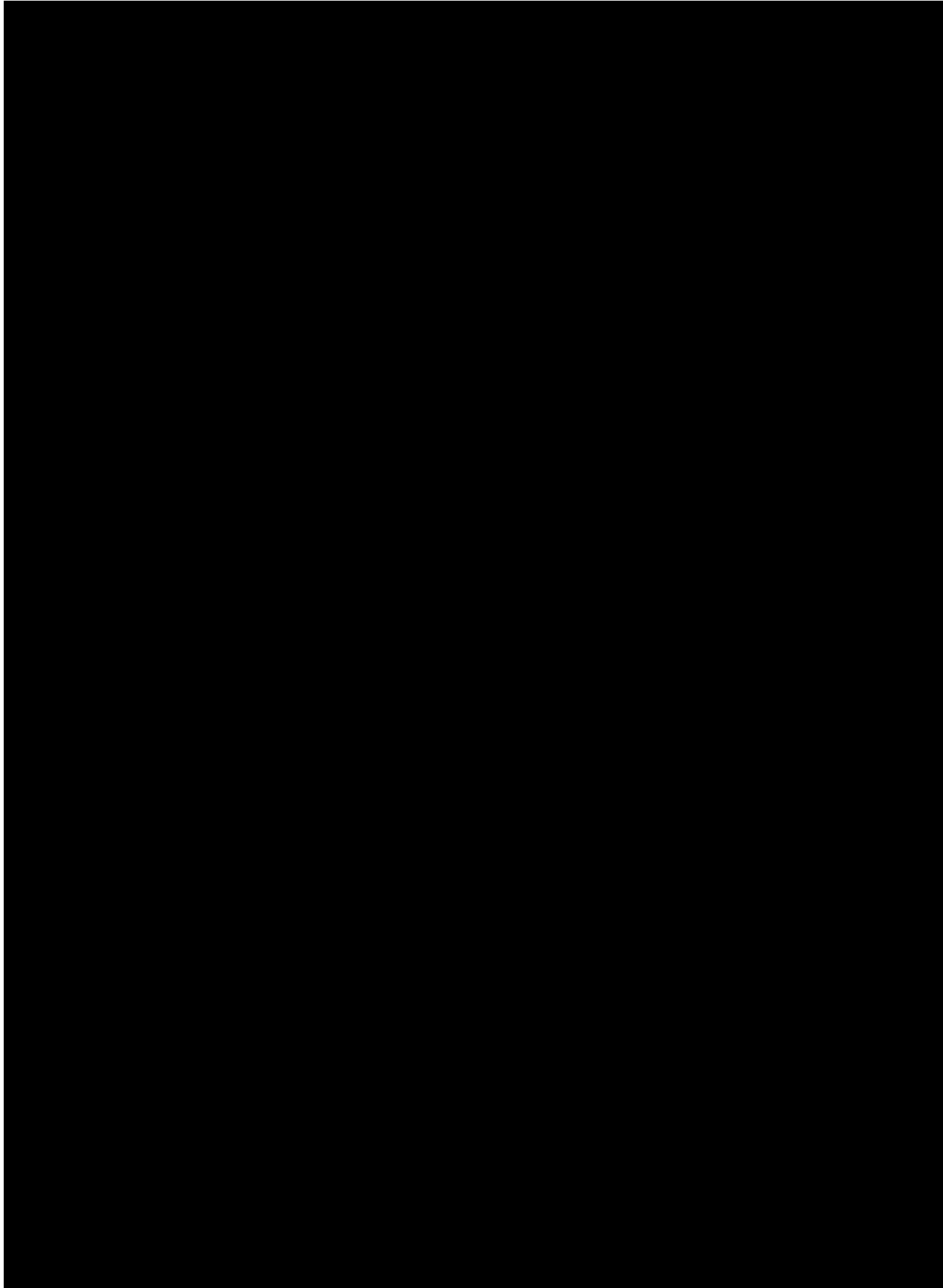


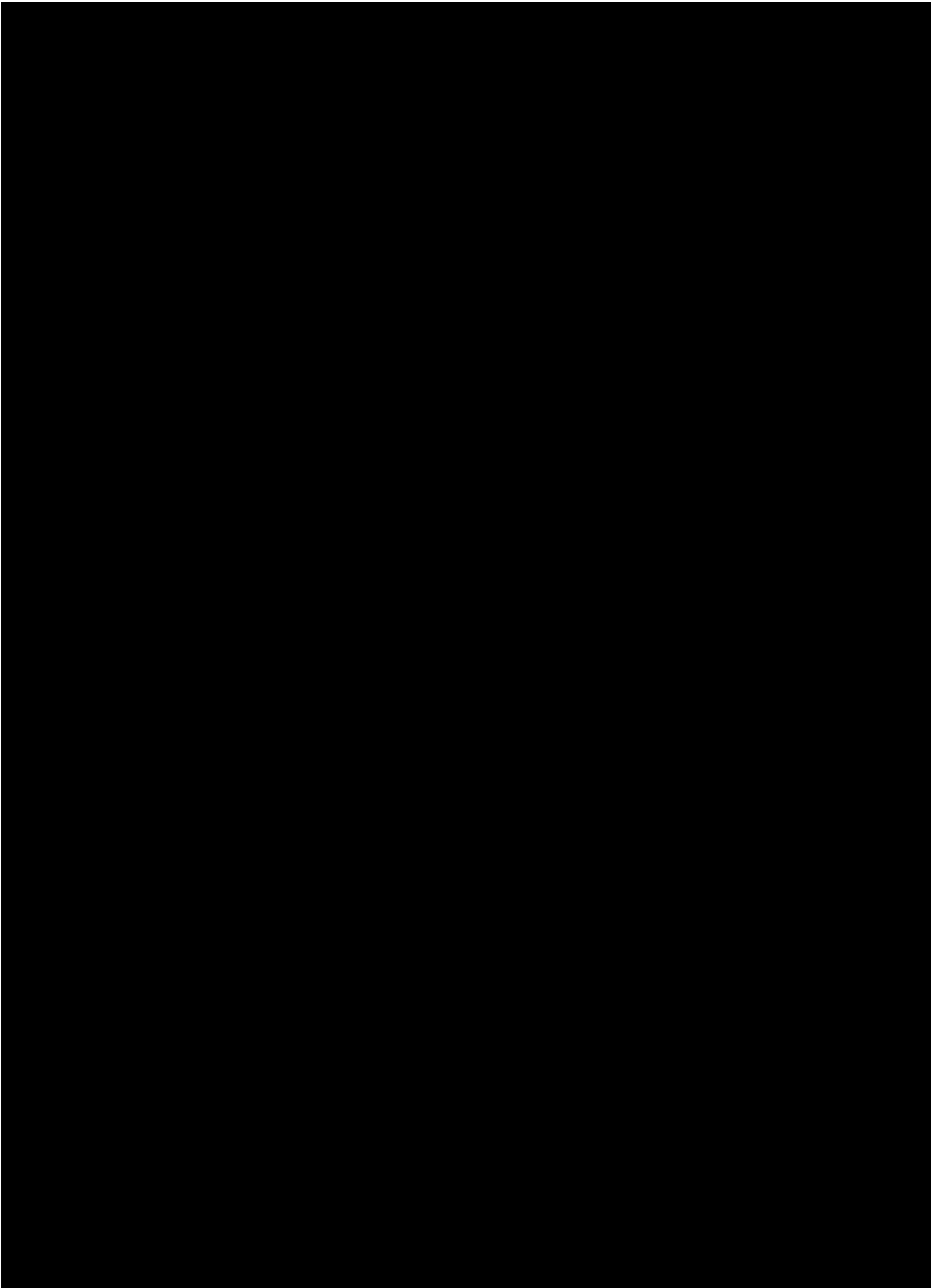


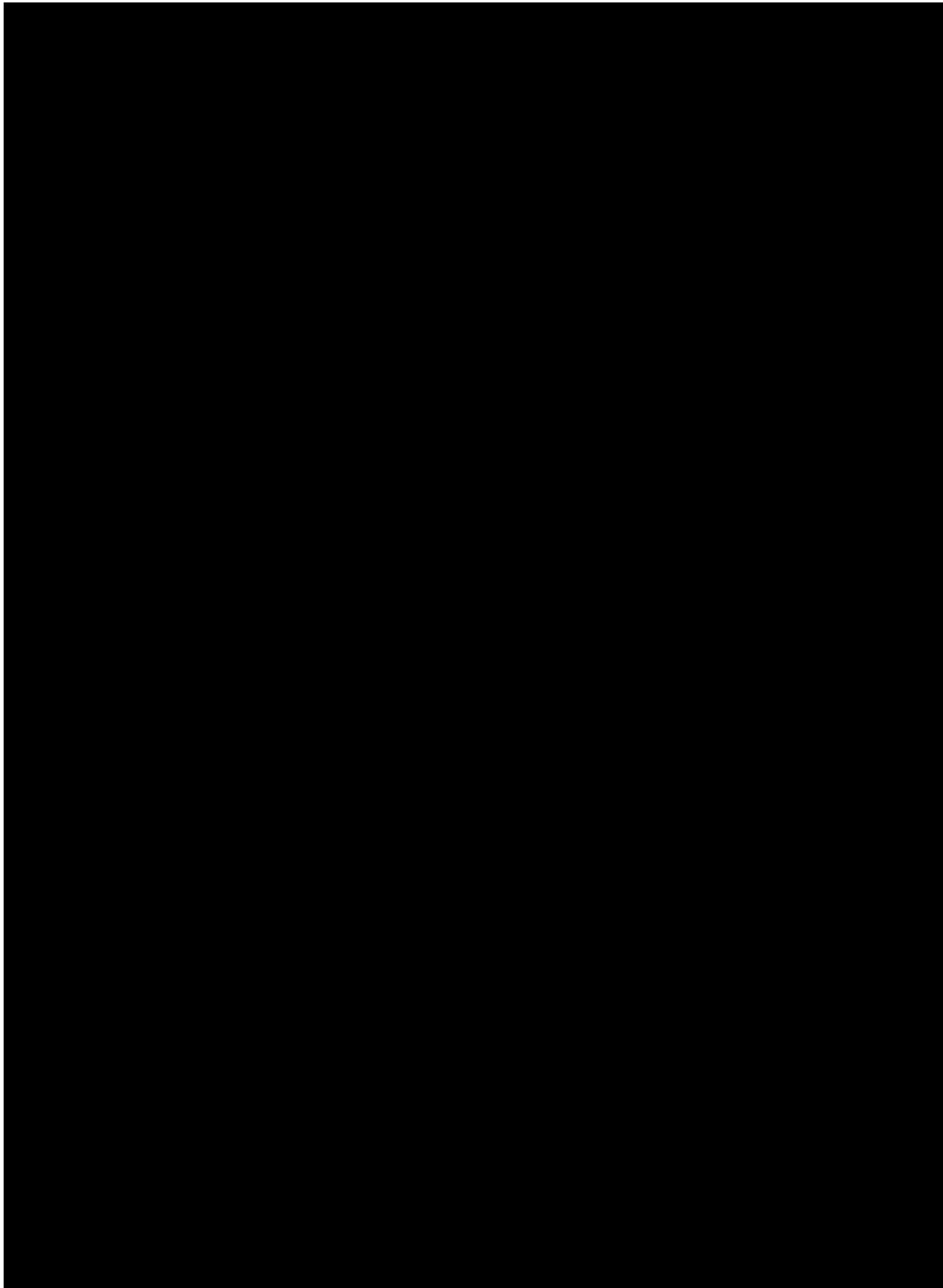


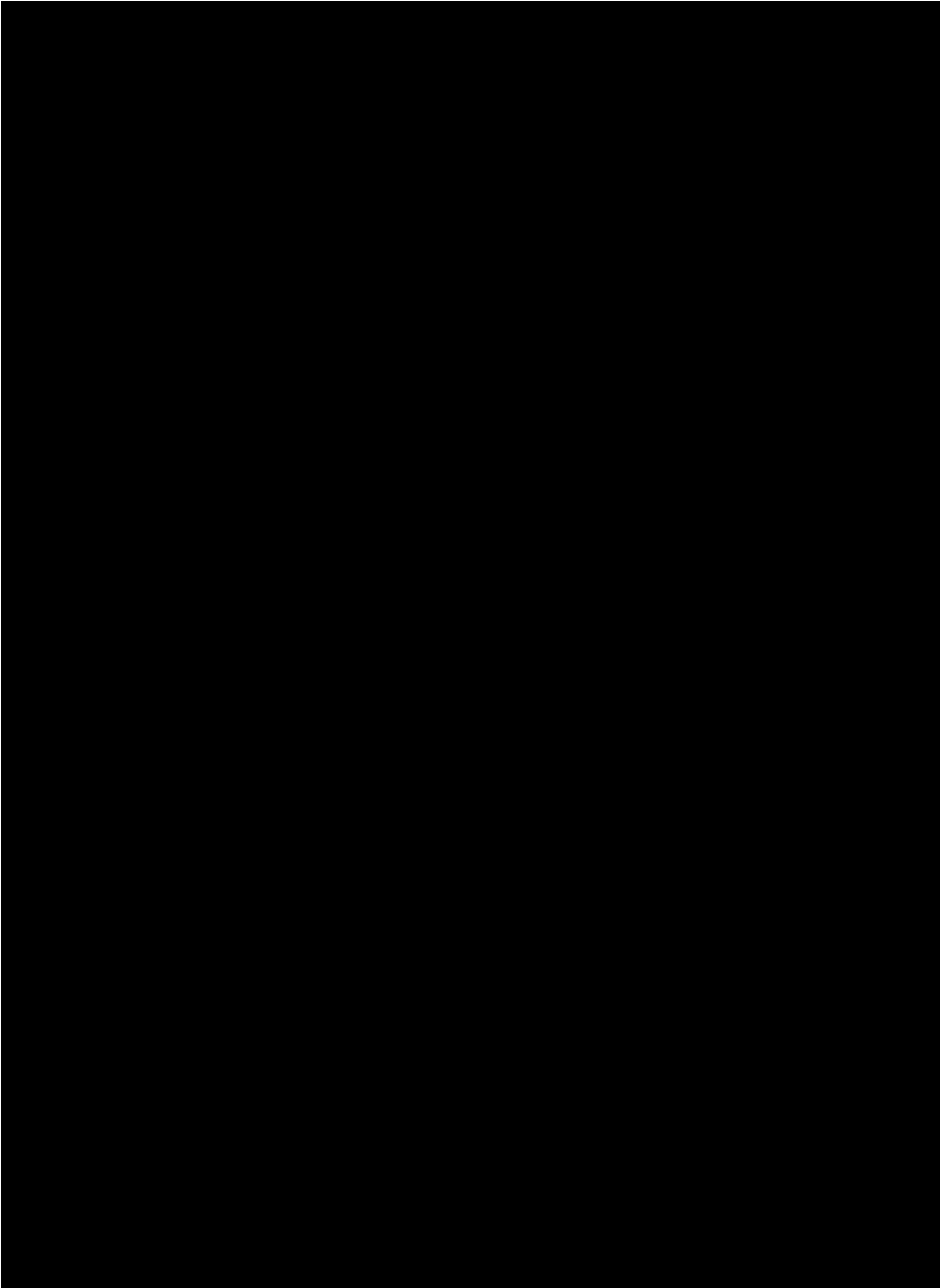




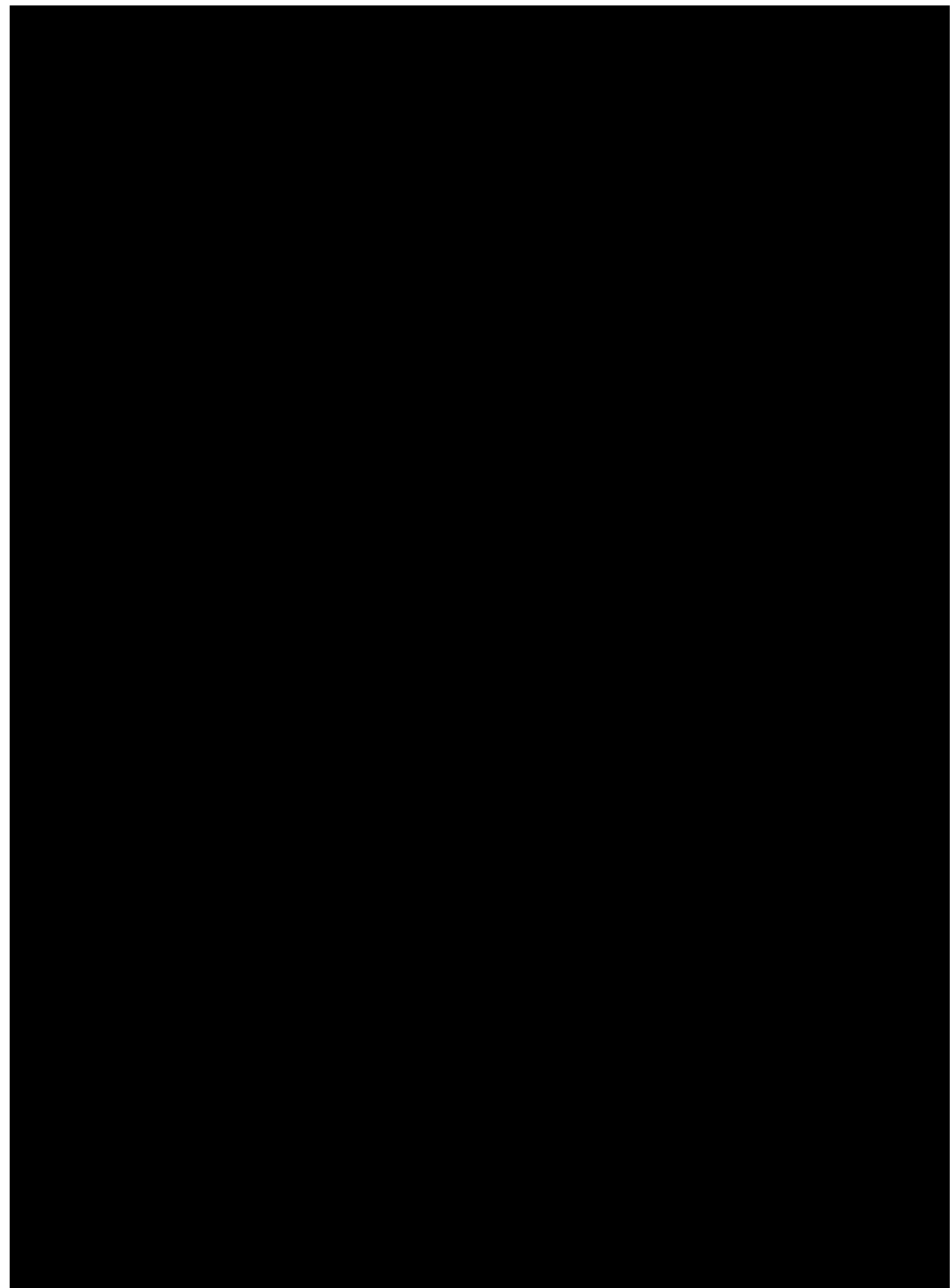


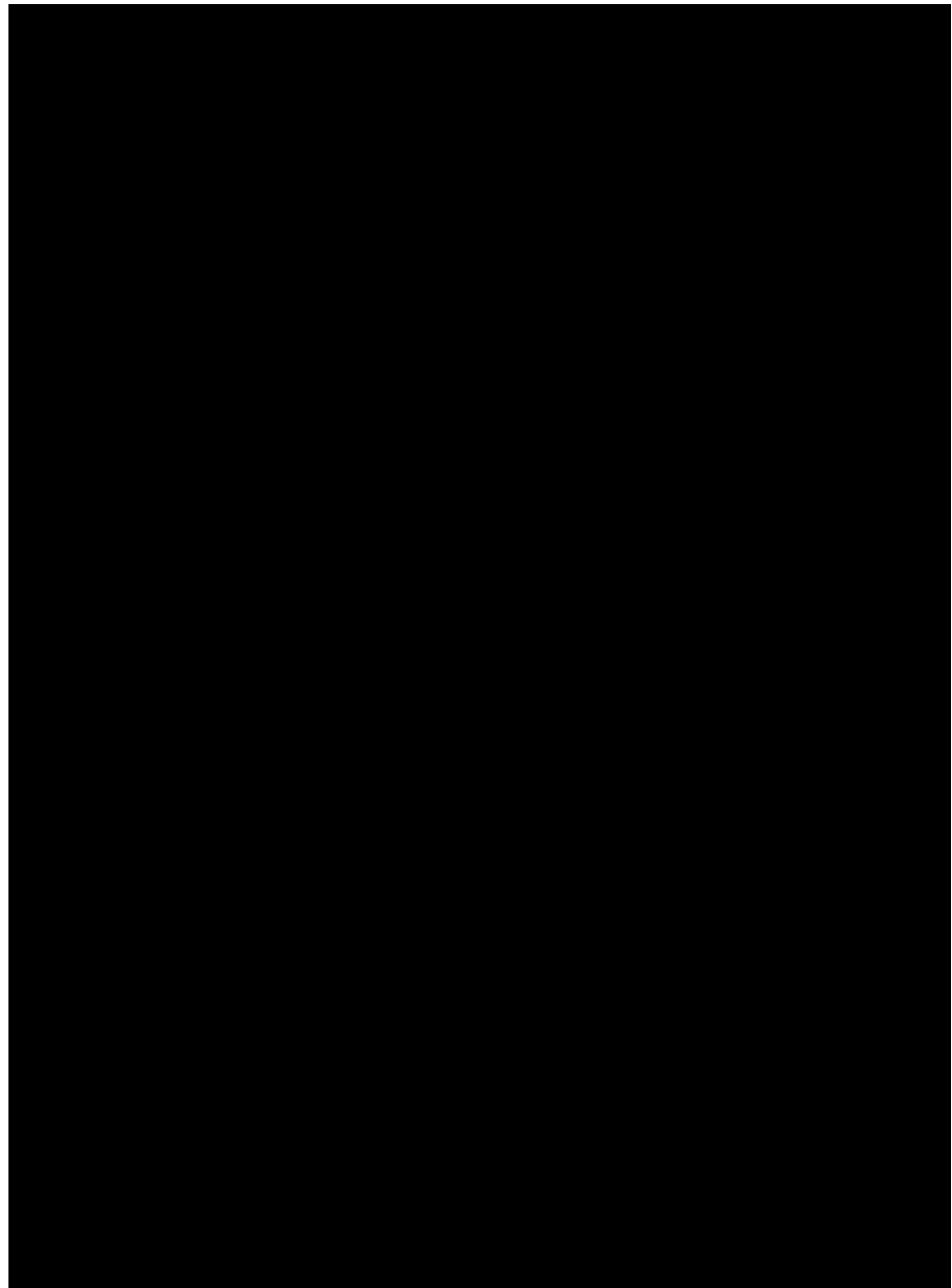


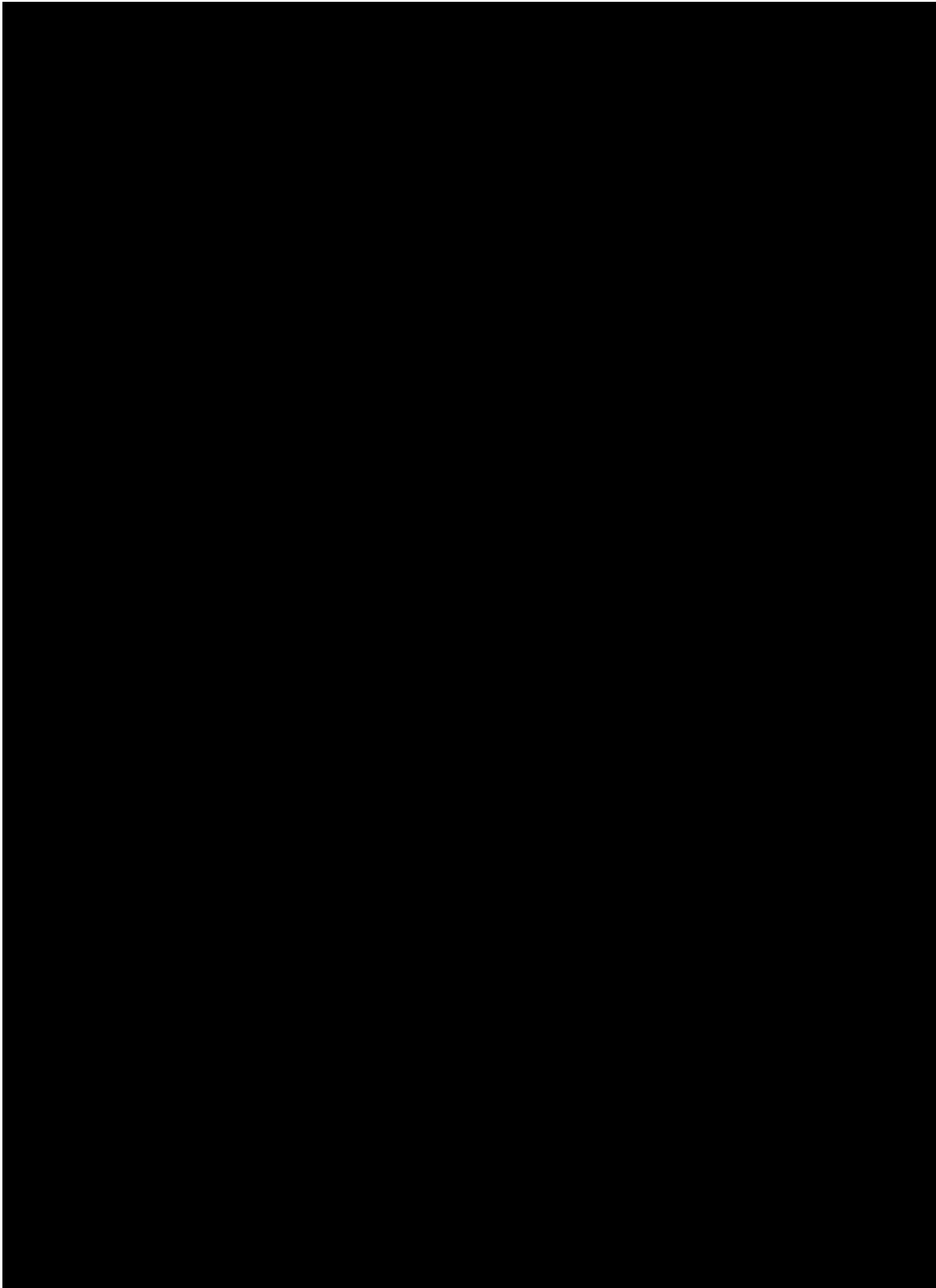


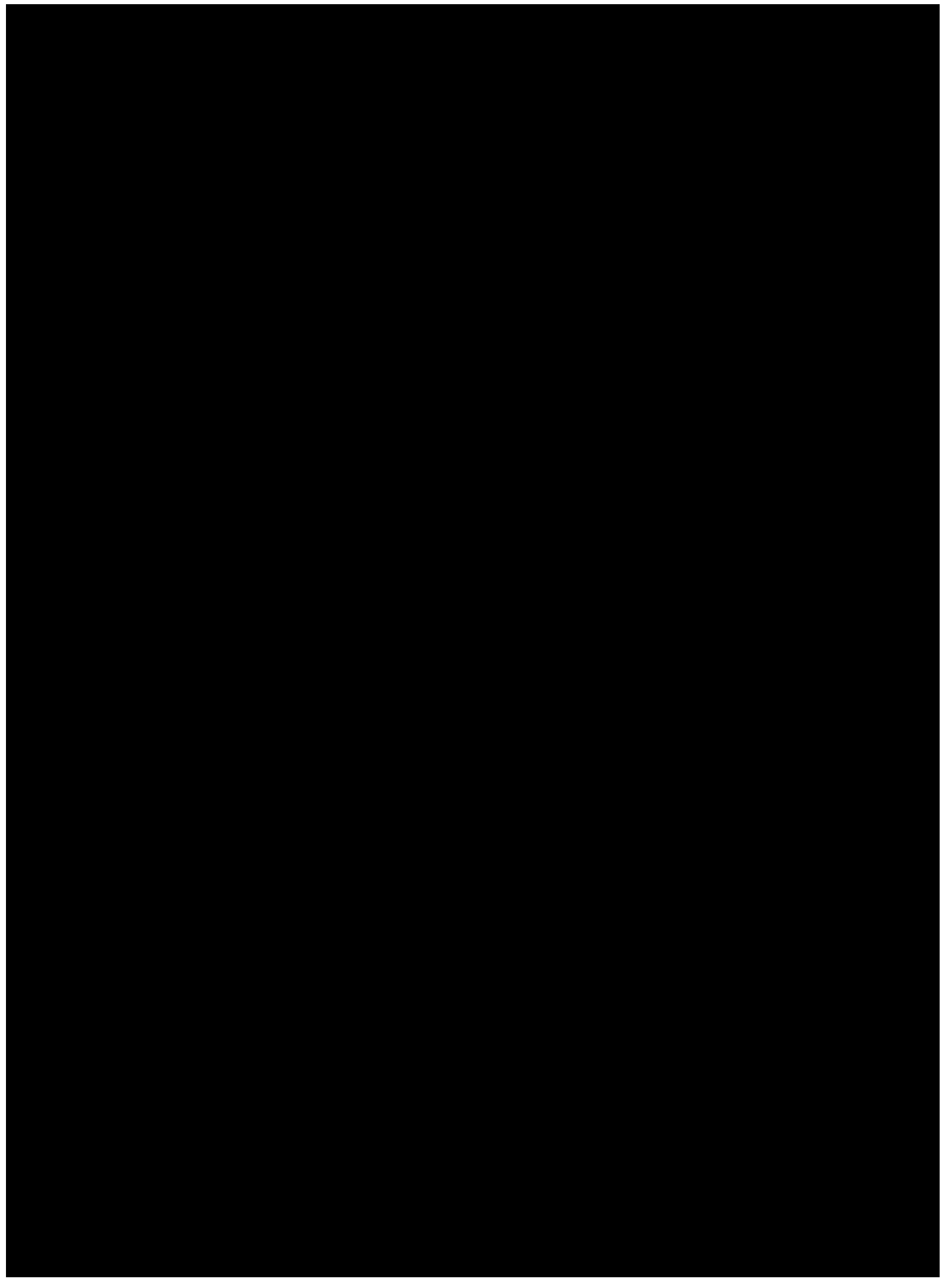


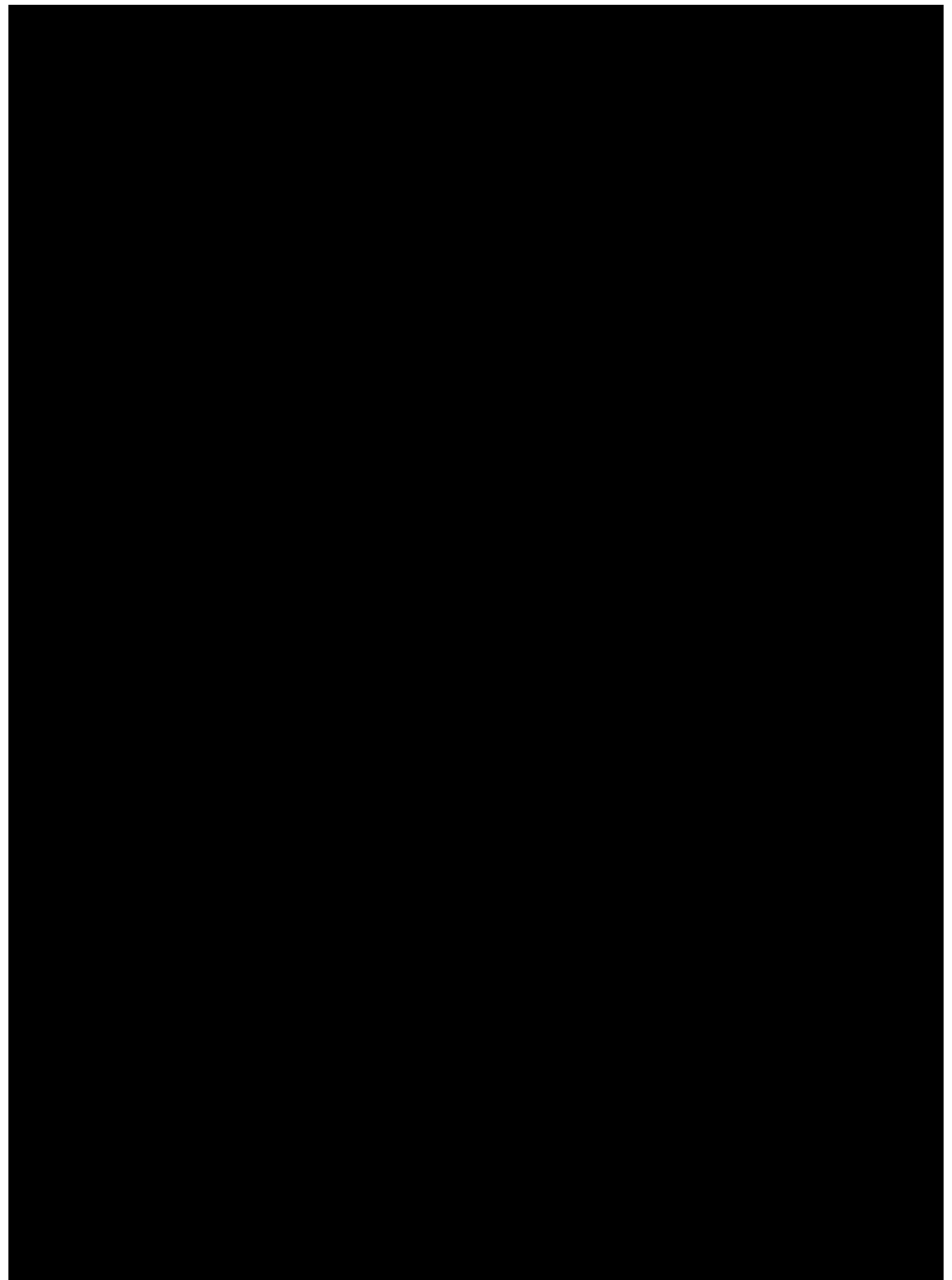


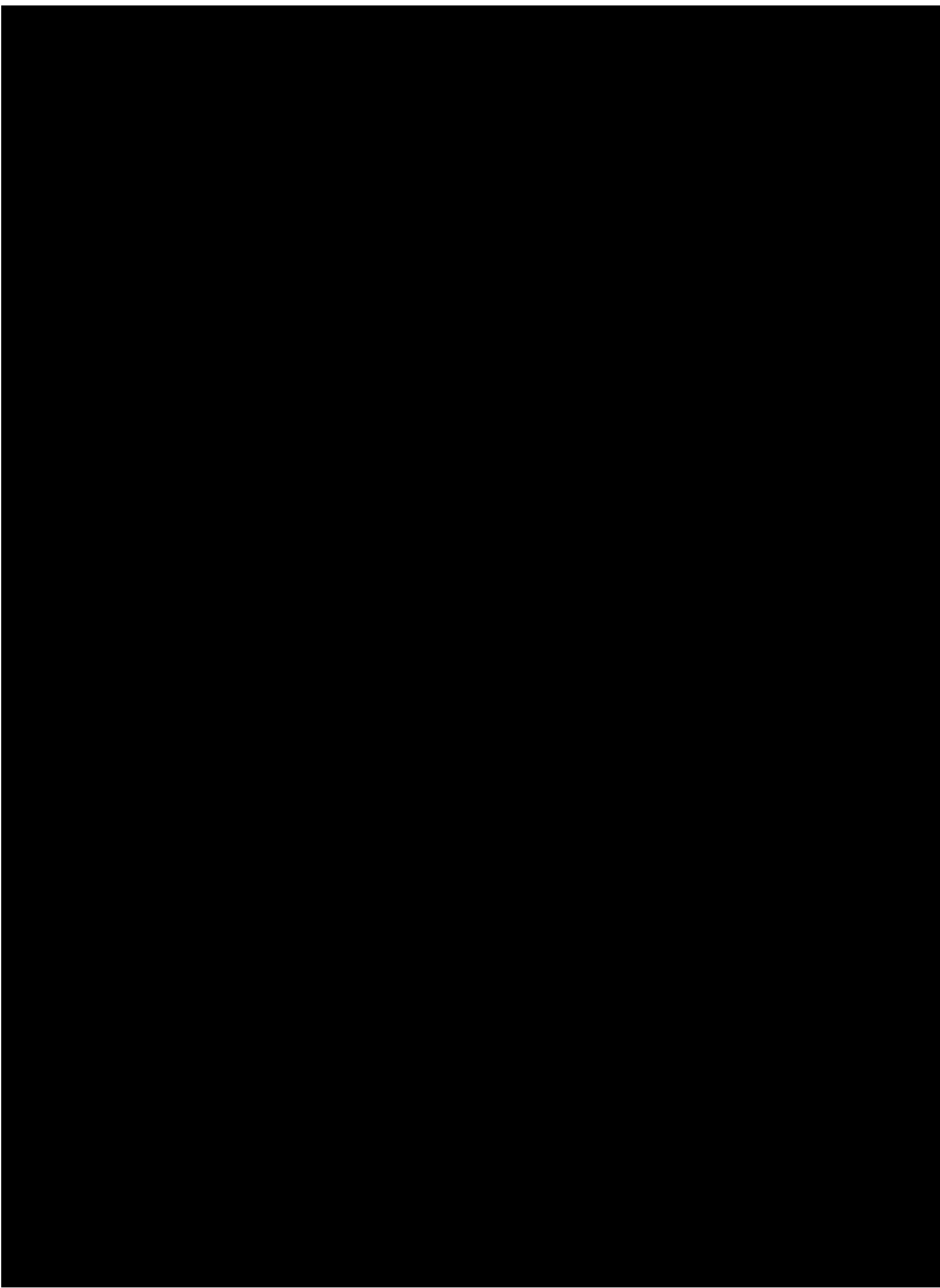


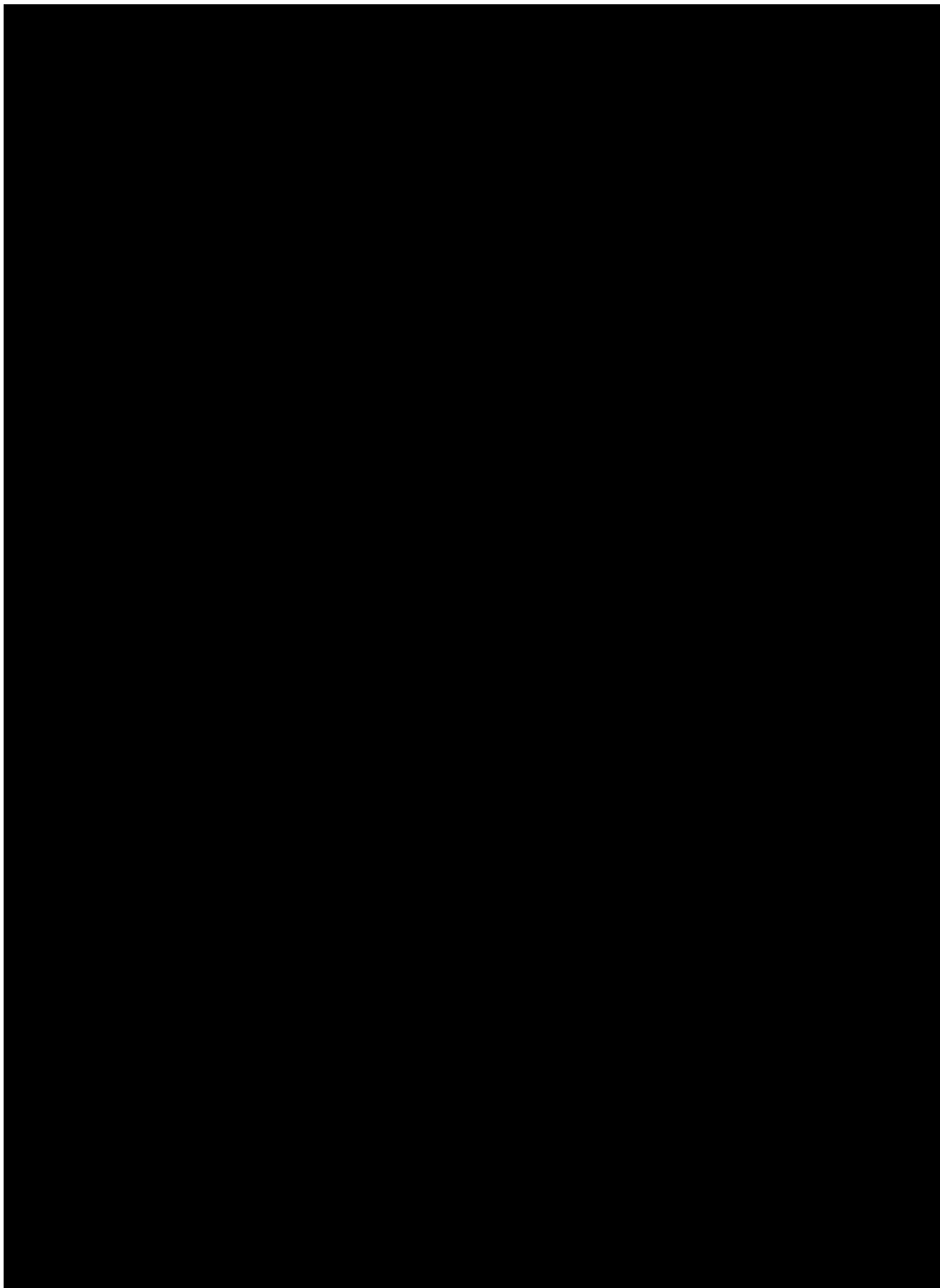


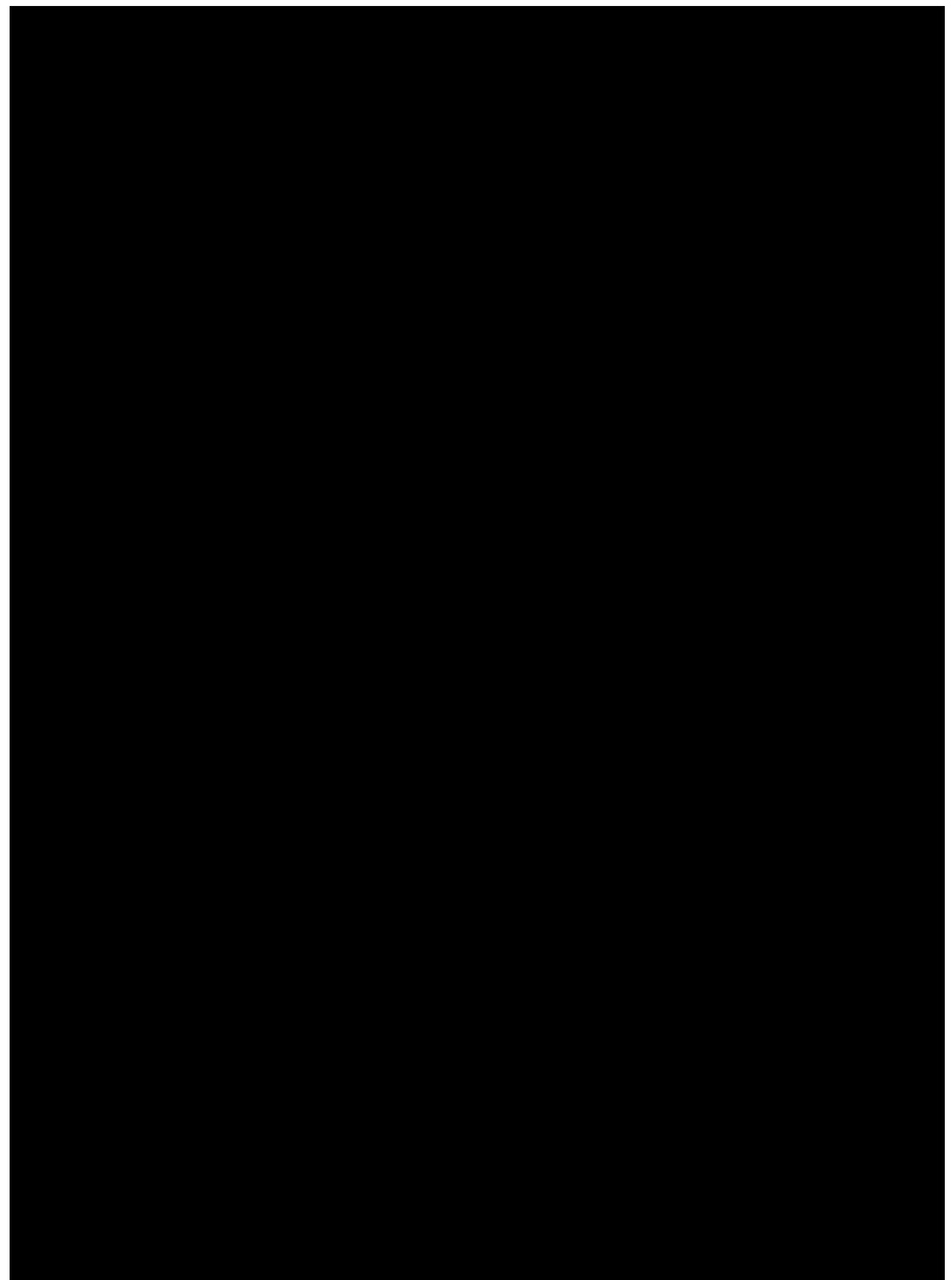


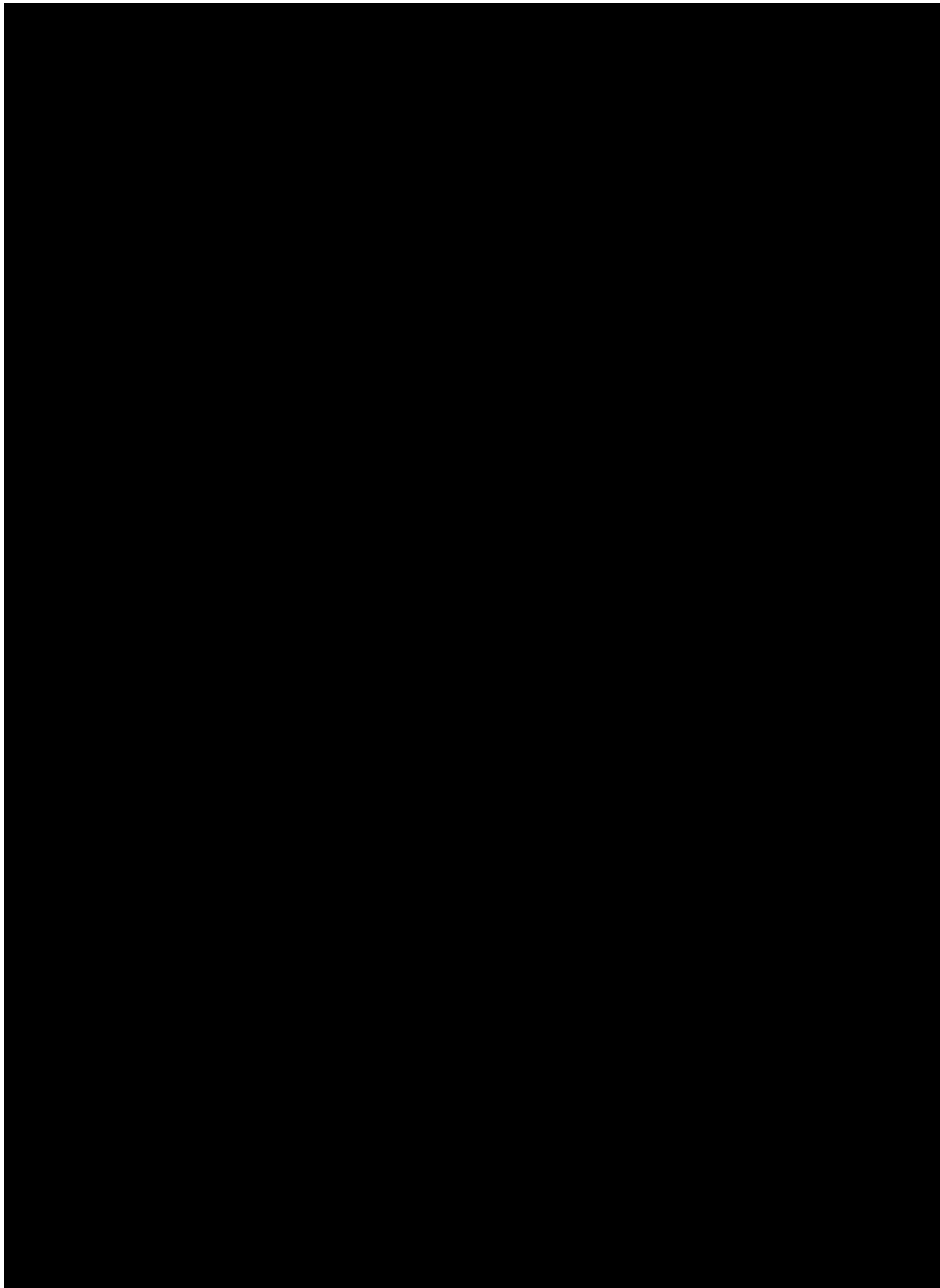


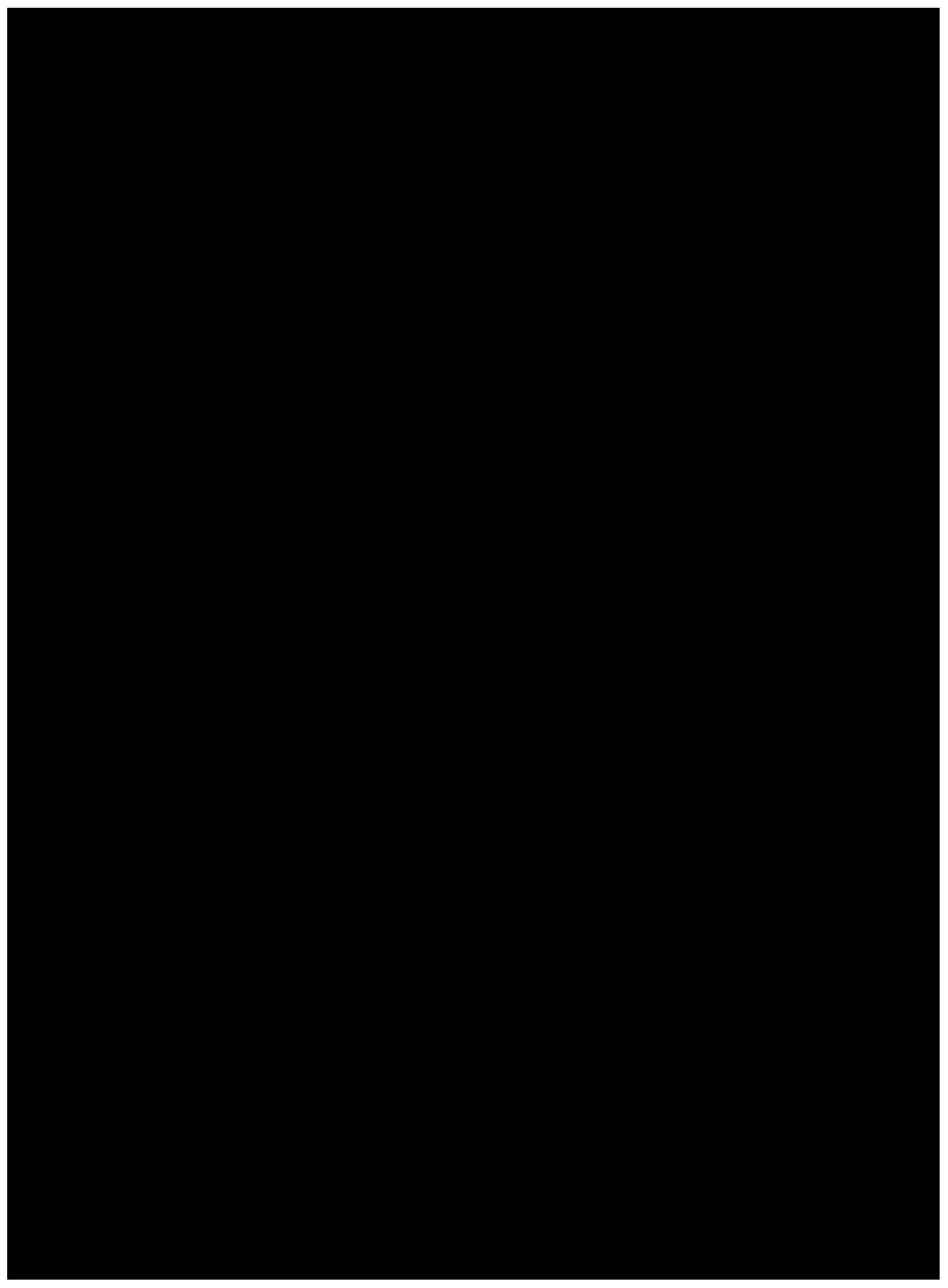




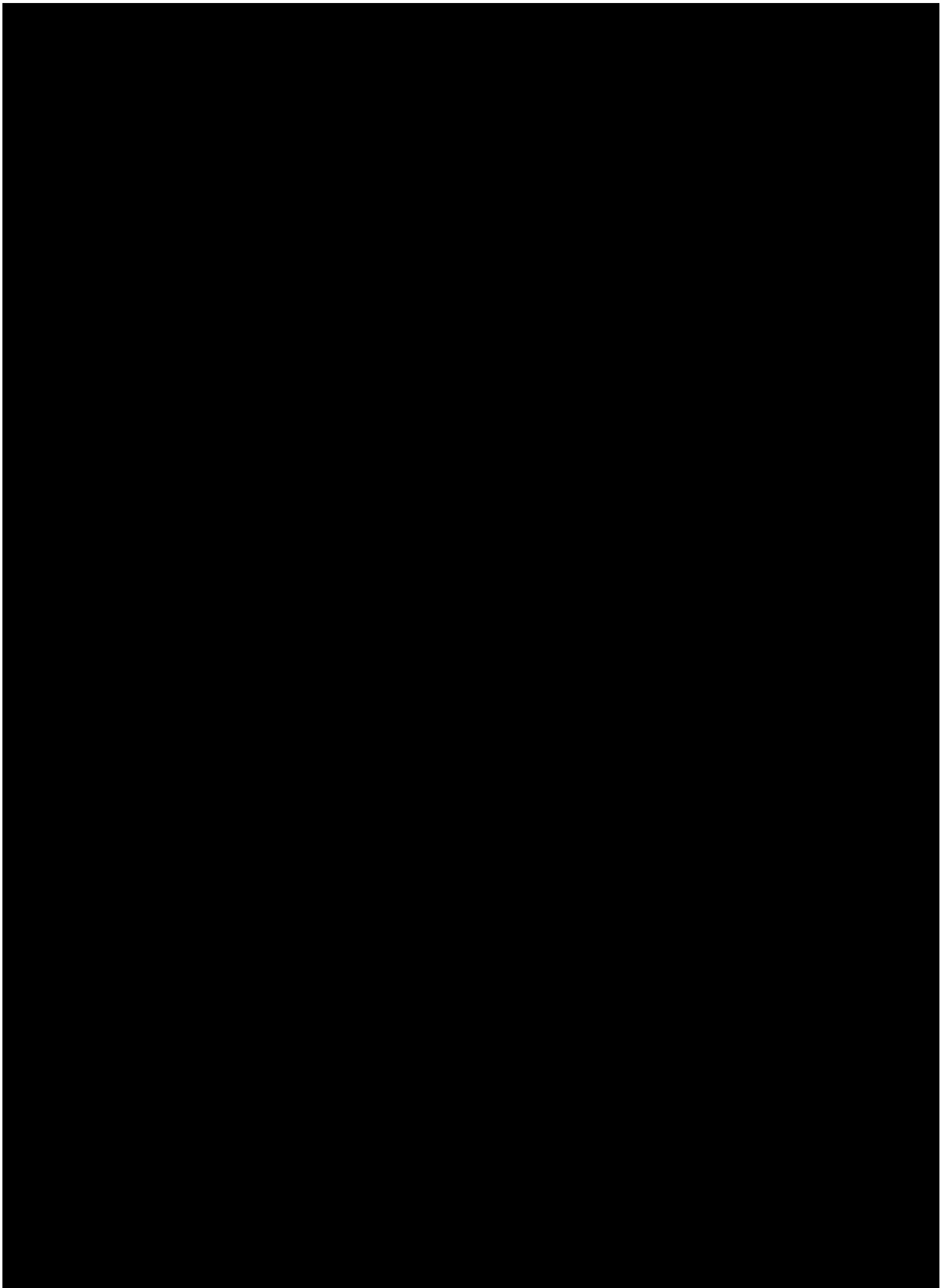












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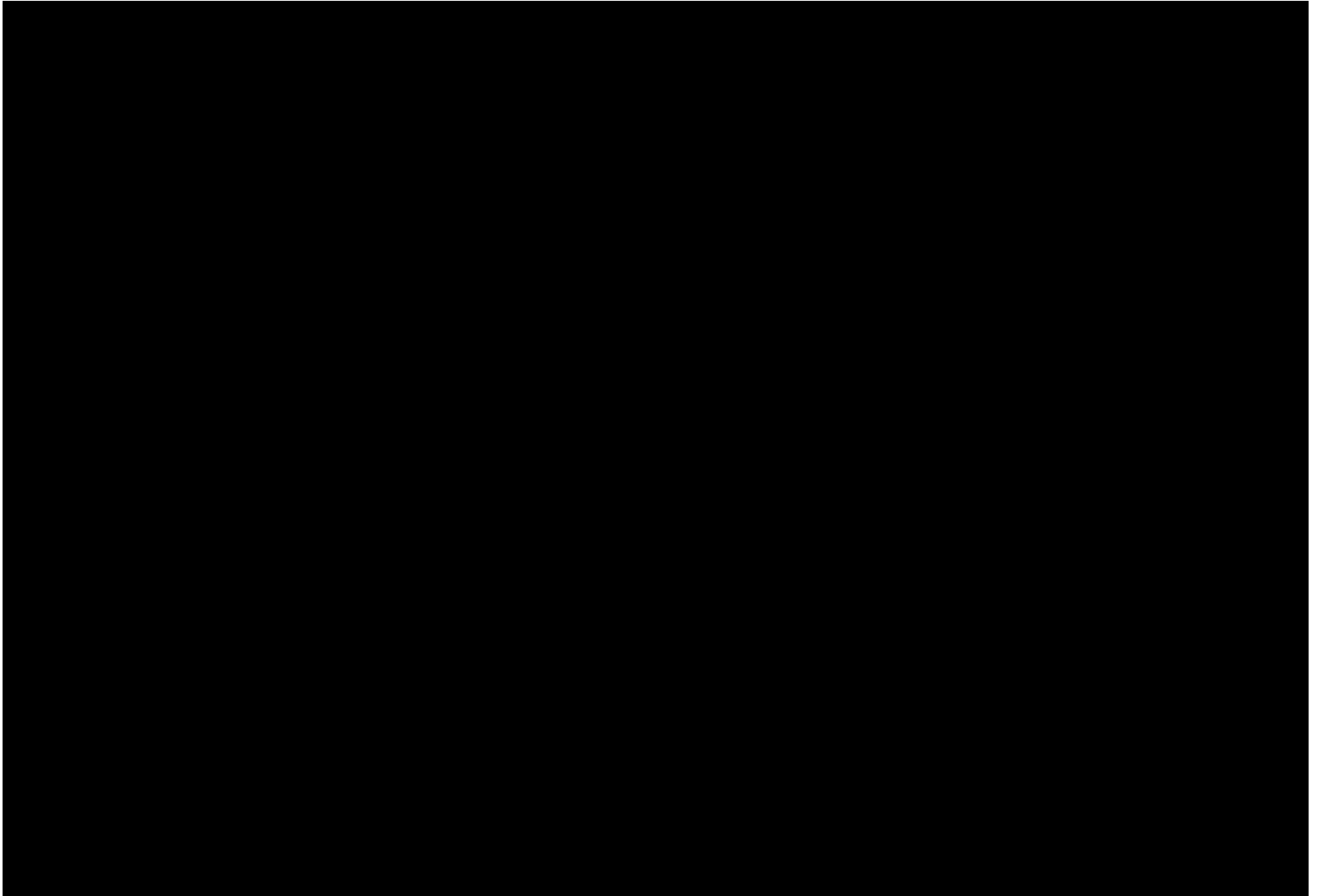
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

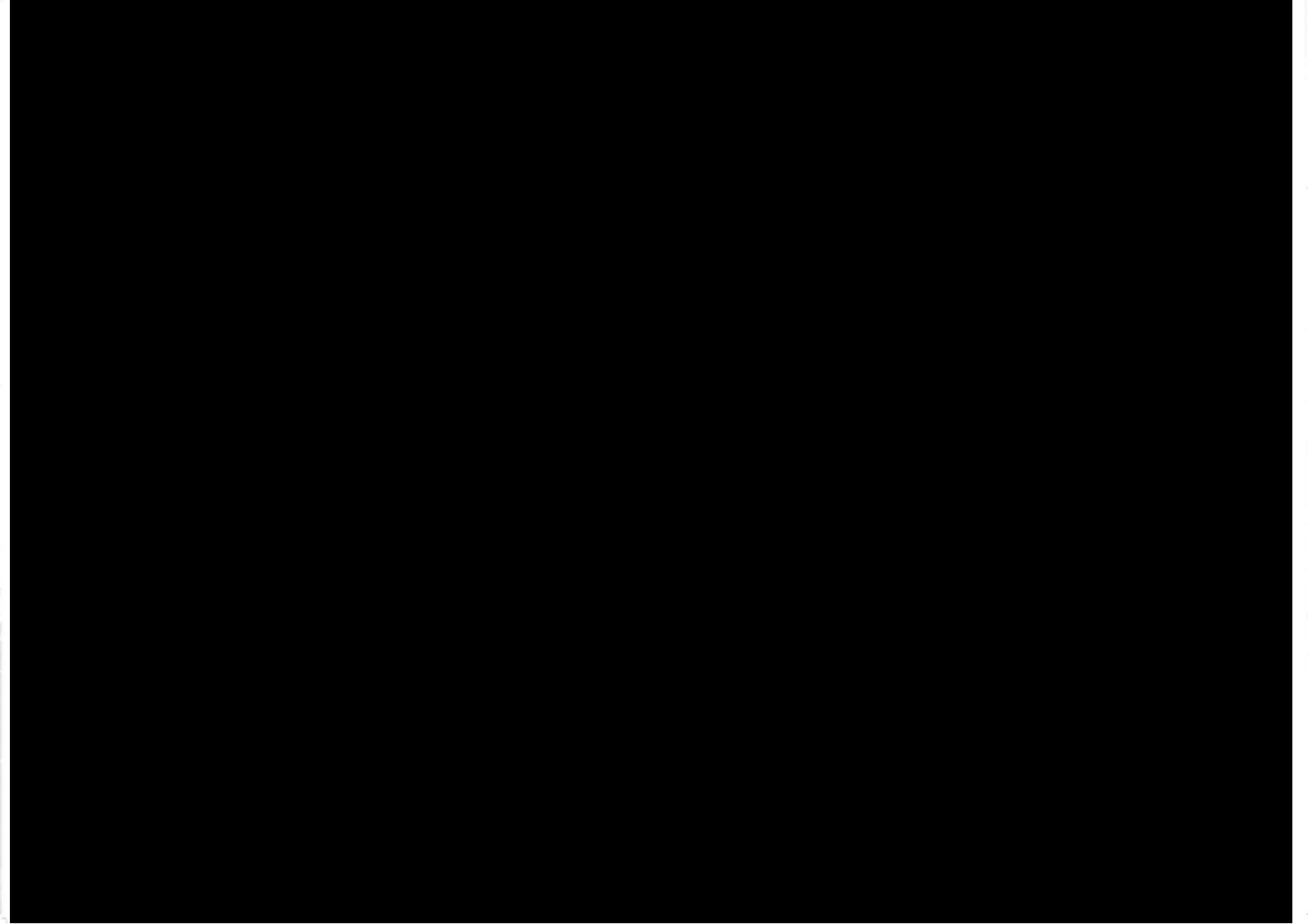
Respondents

CONFIDENTIAL ANNEXURE AIB-42

This is the confidential annexure marked **AIB-42** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me: 

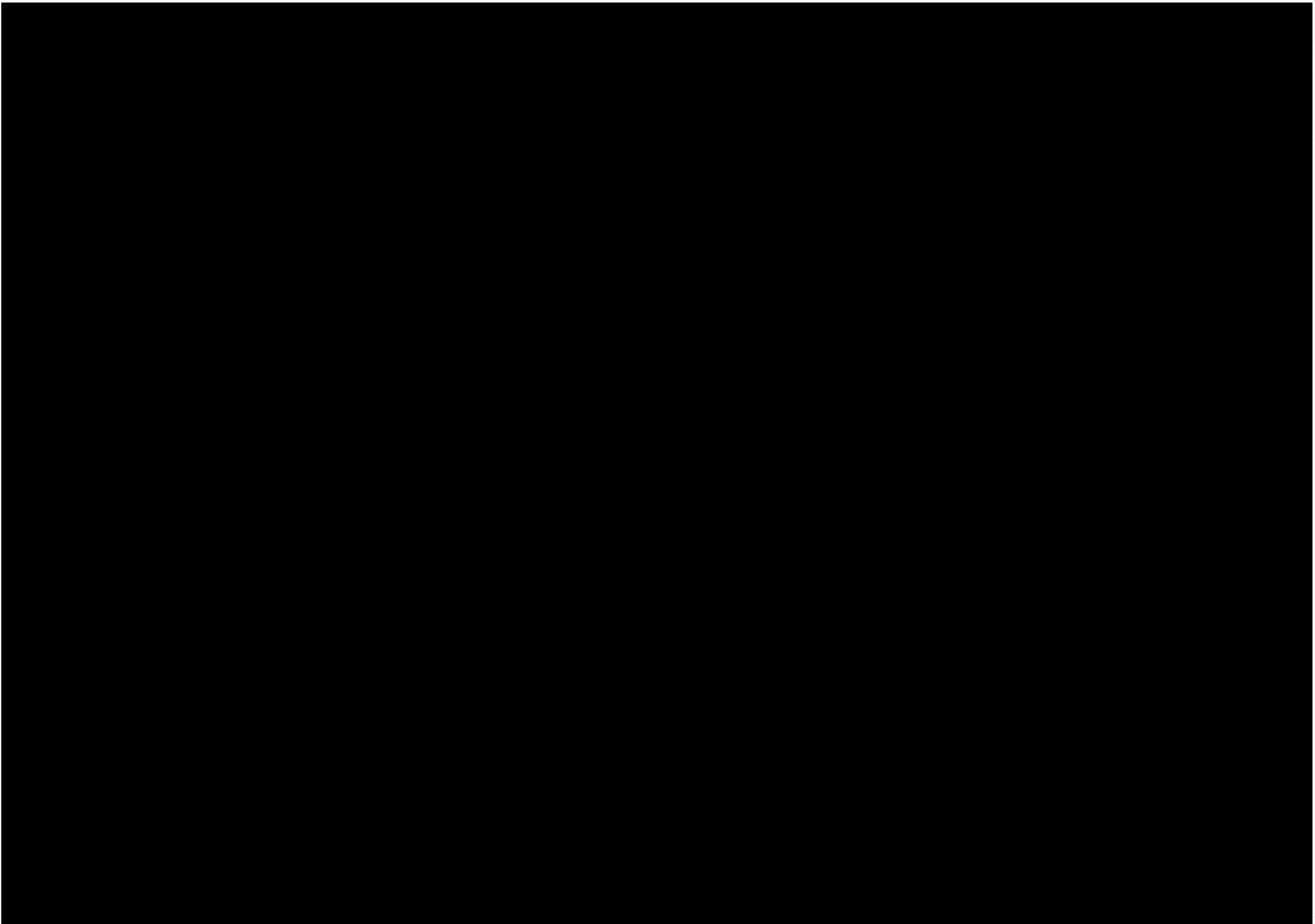


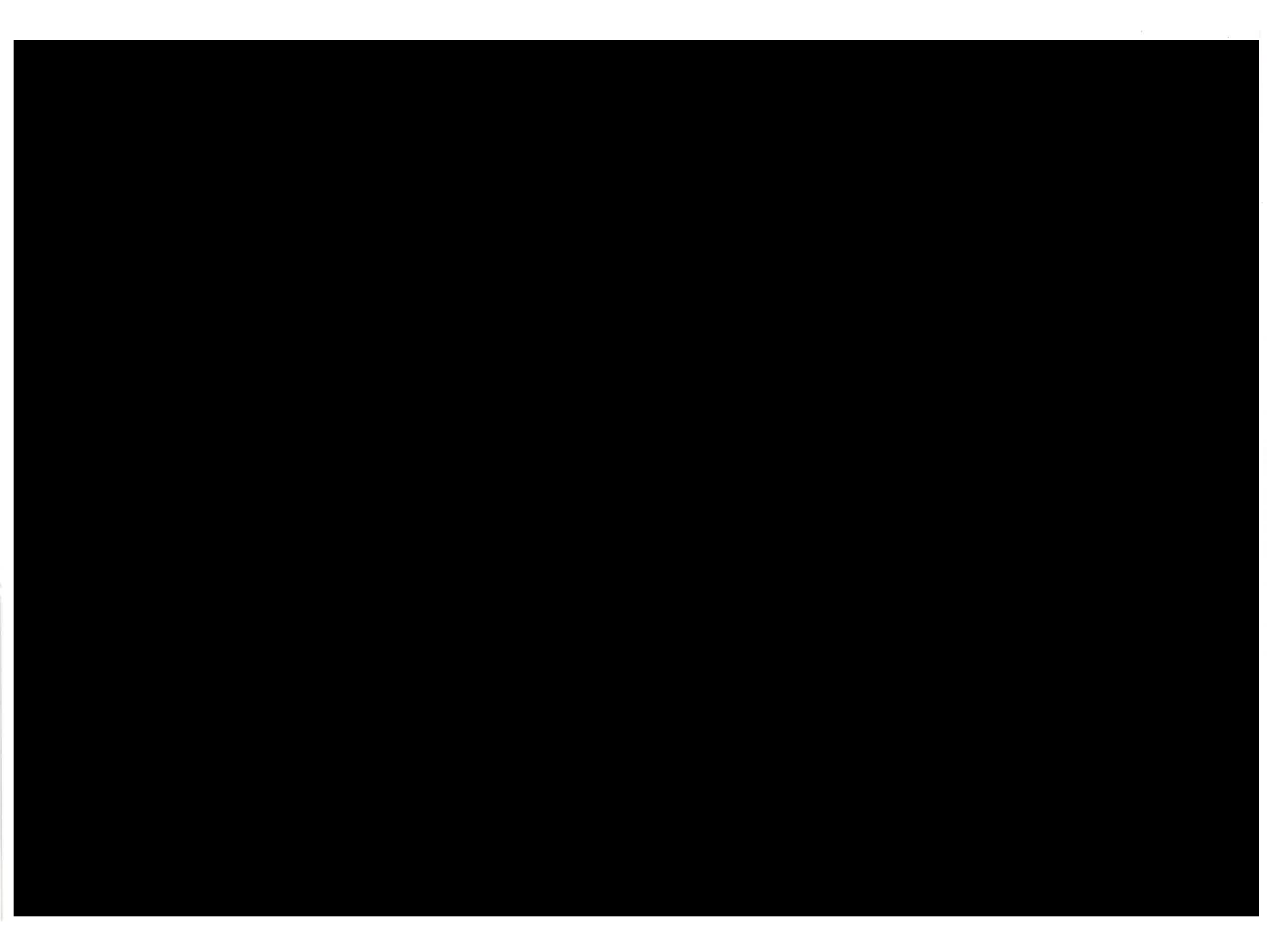








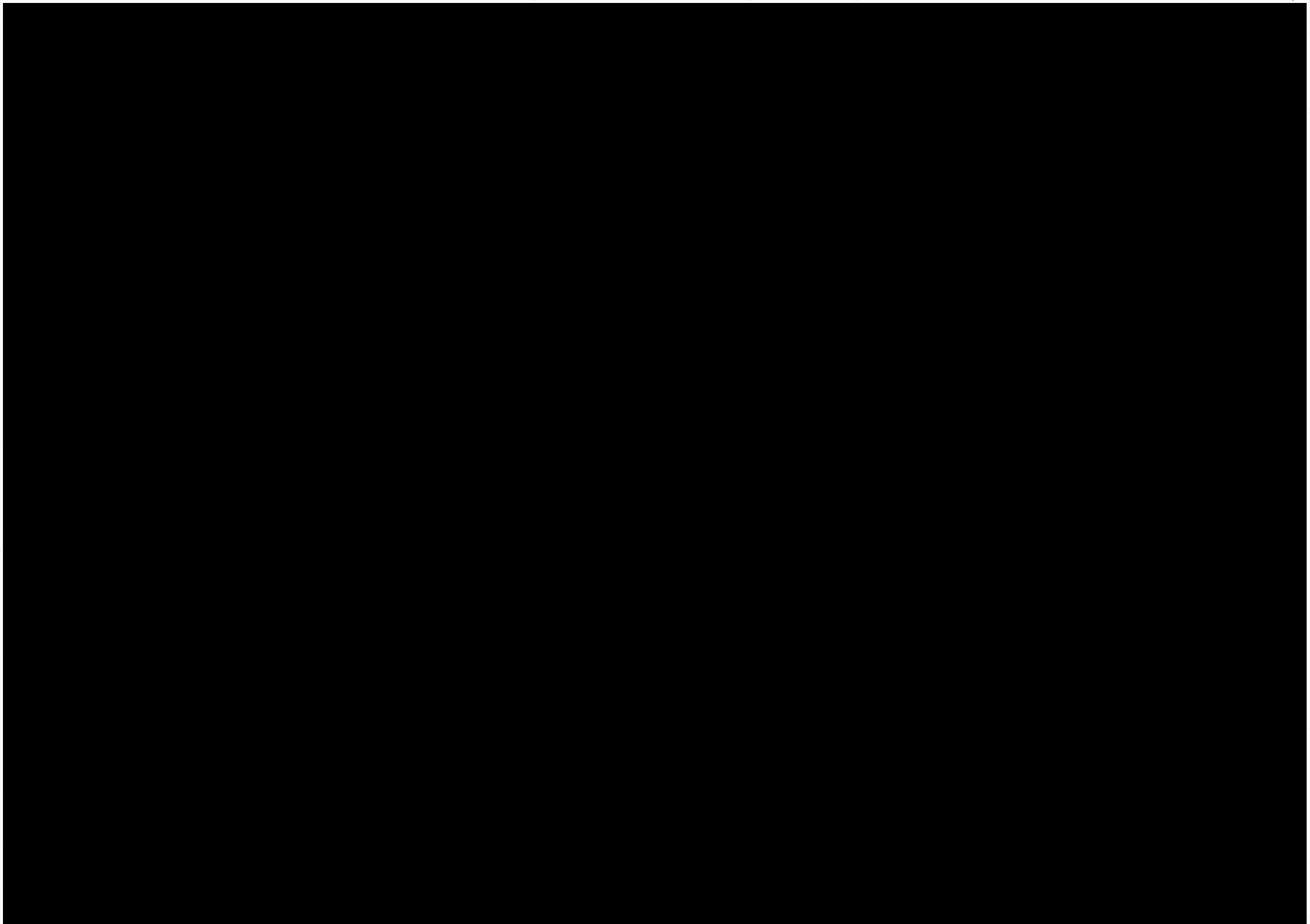




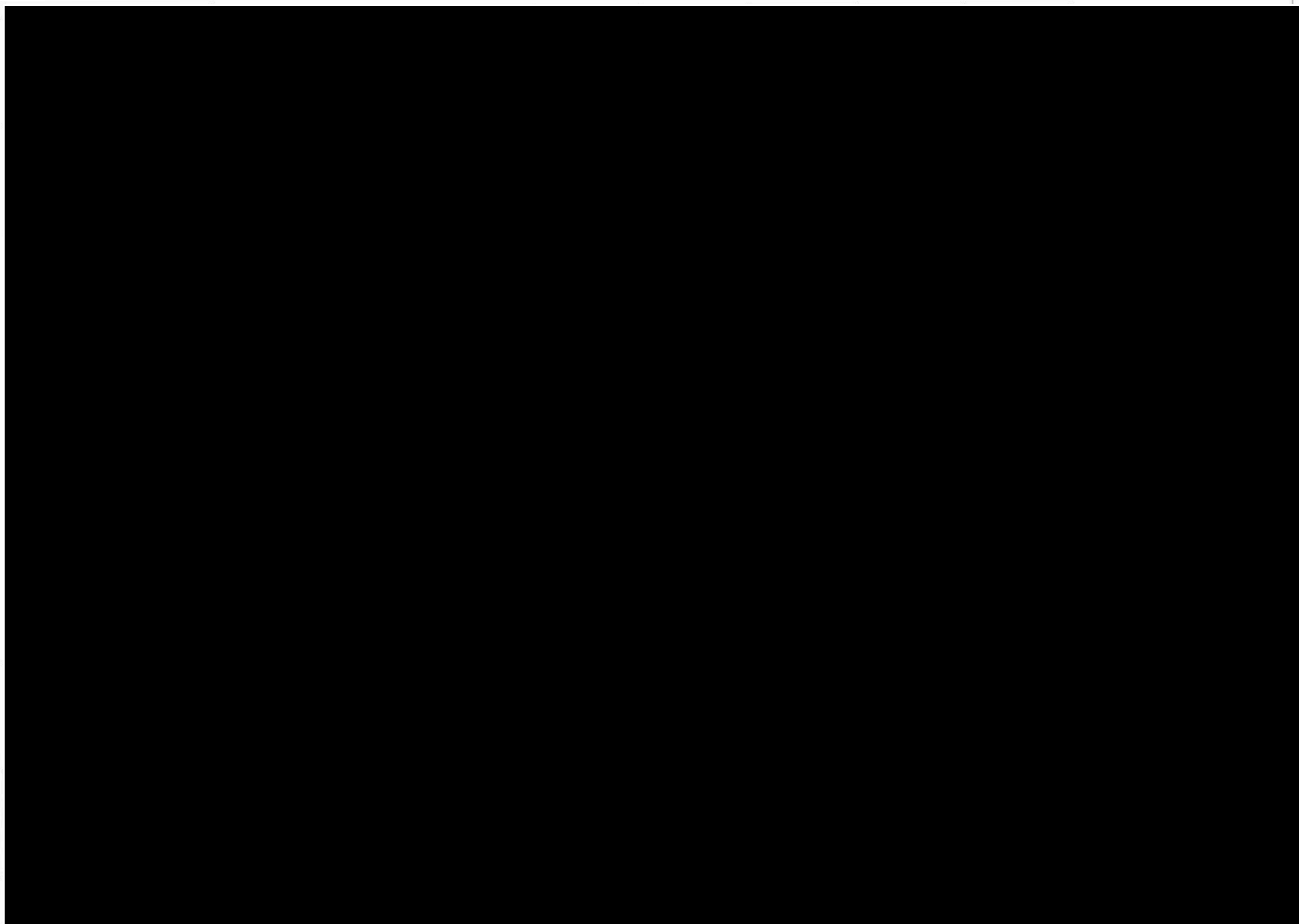
















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FORTESCUE LIMITED (ACN 002 594 872) and others

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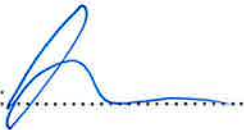
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

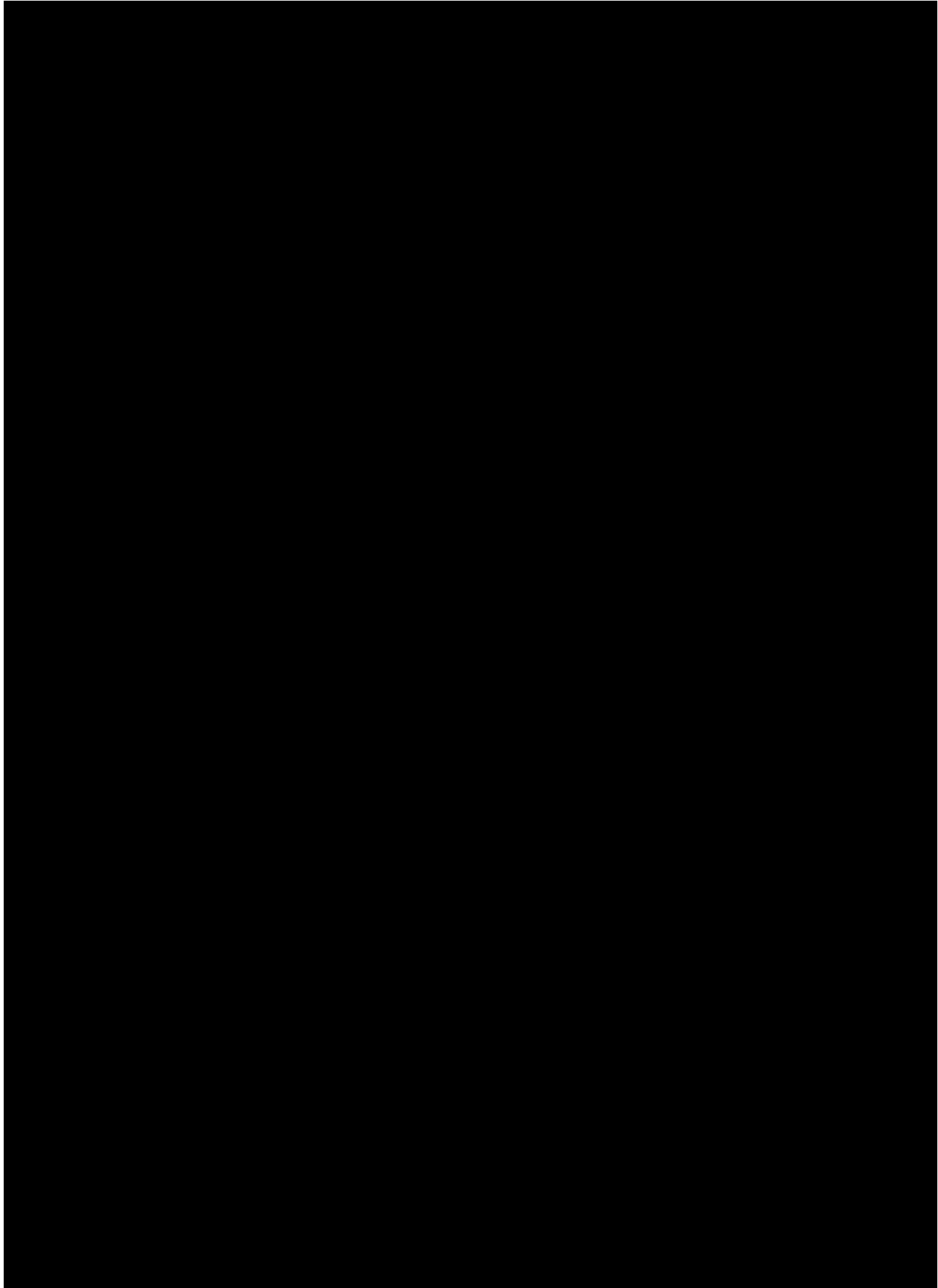
Respondents

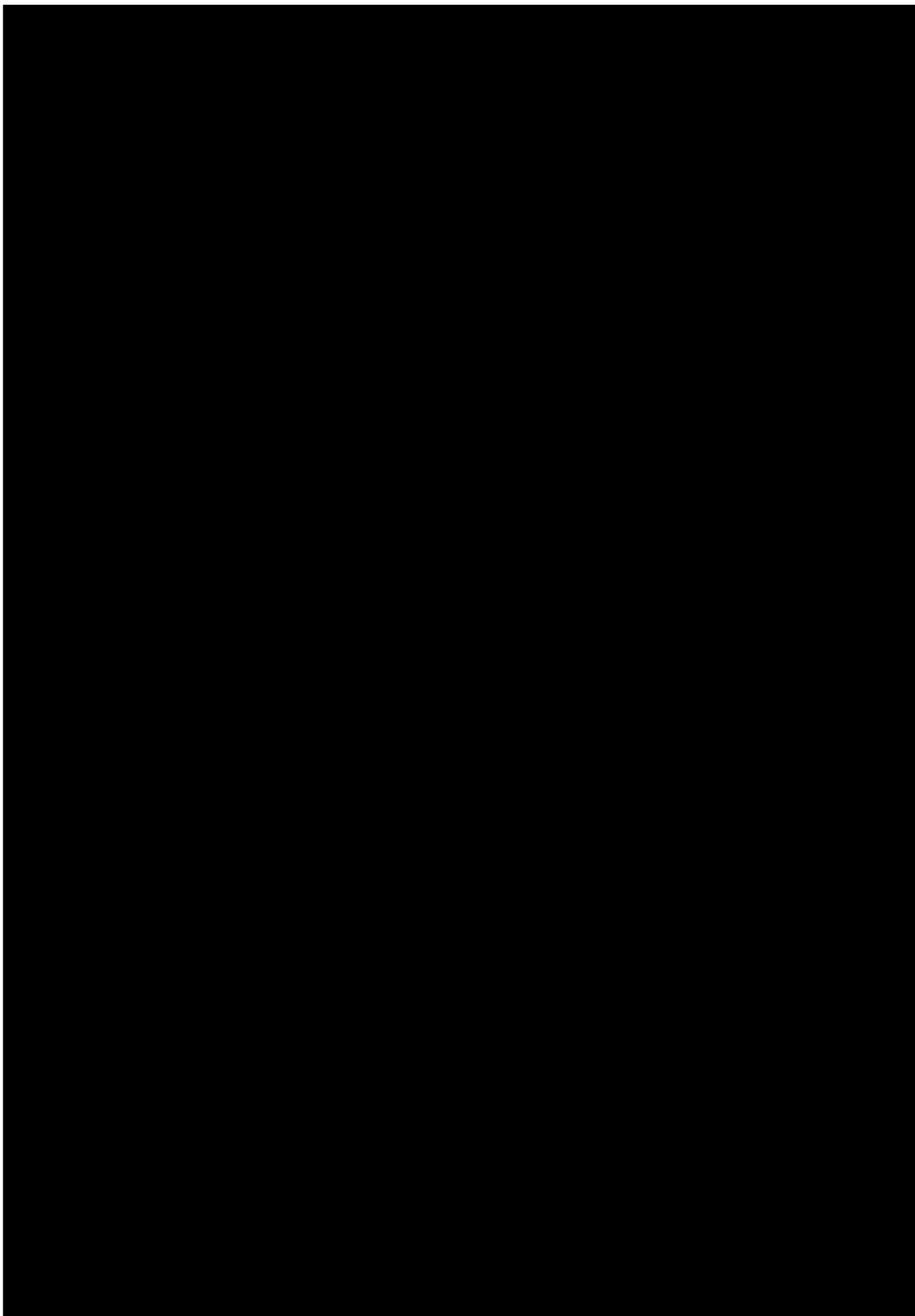
CONFIDENTIAL ANNEXURE AIB-43

This is the confidential annexure marked **AIB-43** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me:







...the ...

...the ...

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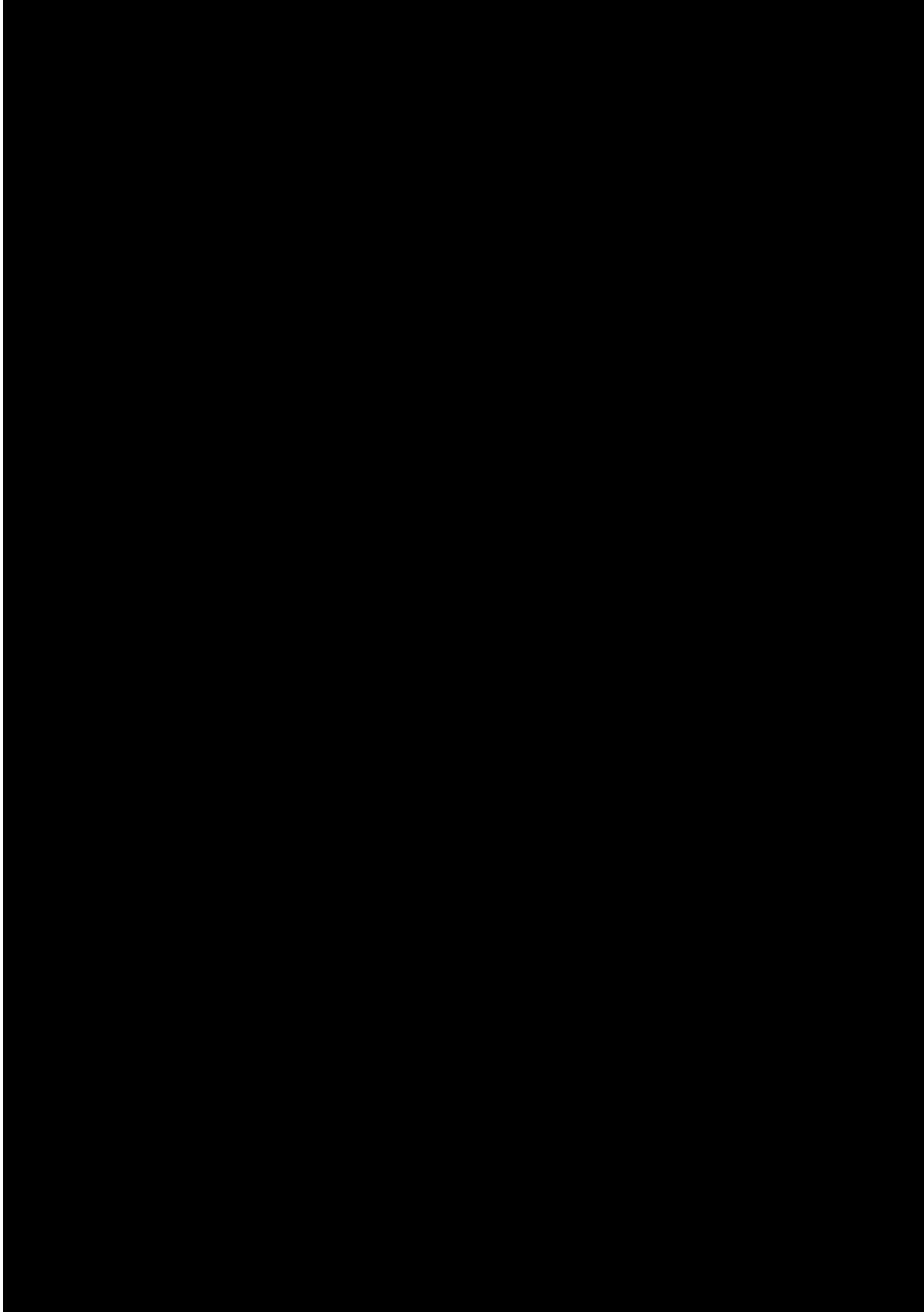
...the ...

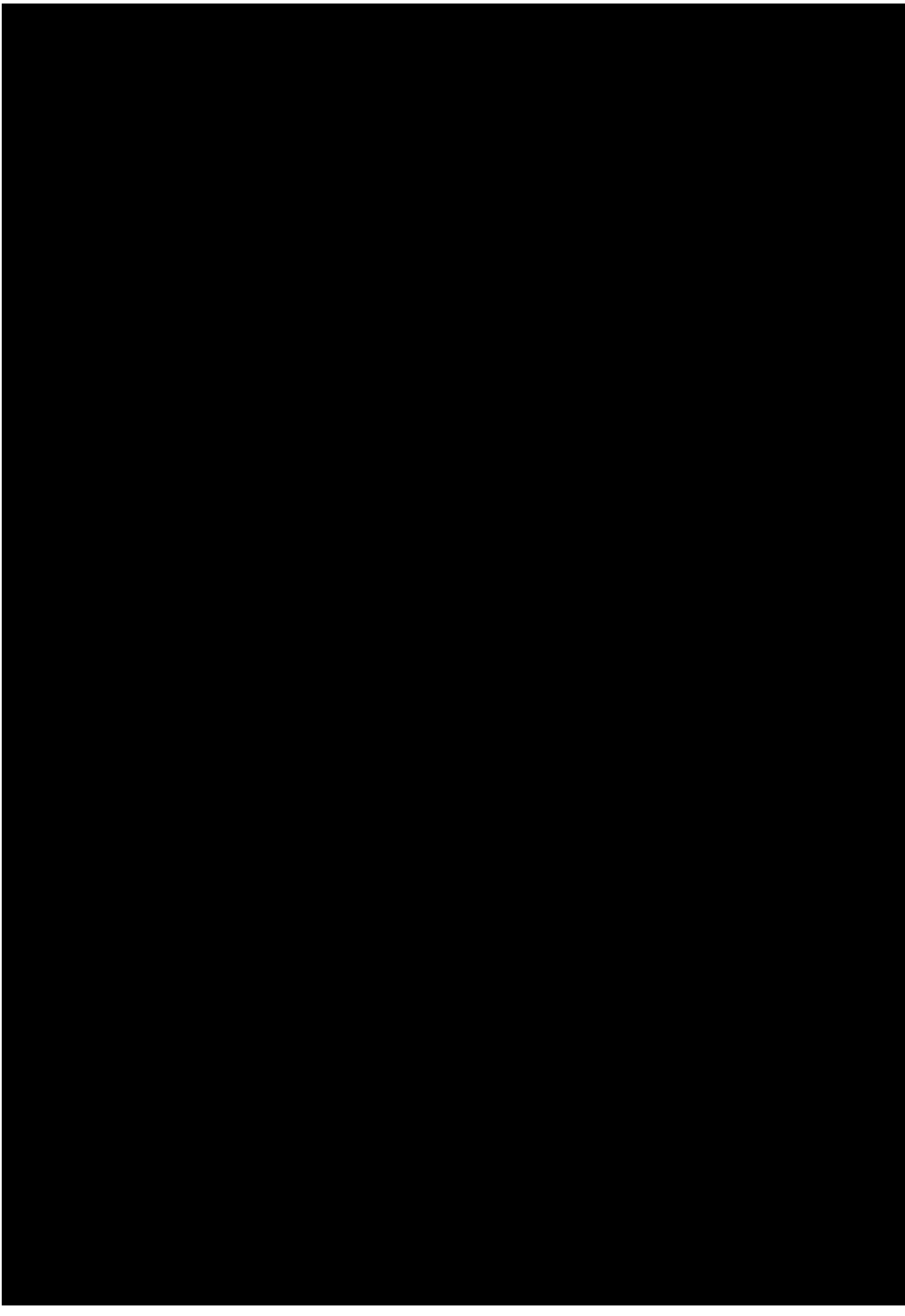
...the ...

...the ...

...the ...

...the ...





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Federal Court of Australia
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Applicants

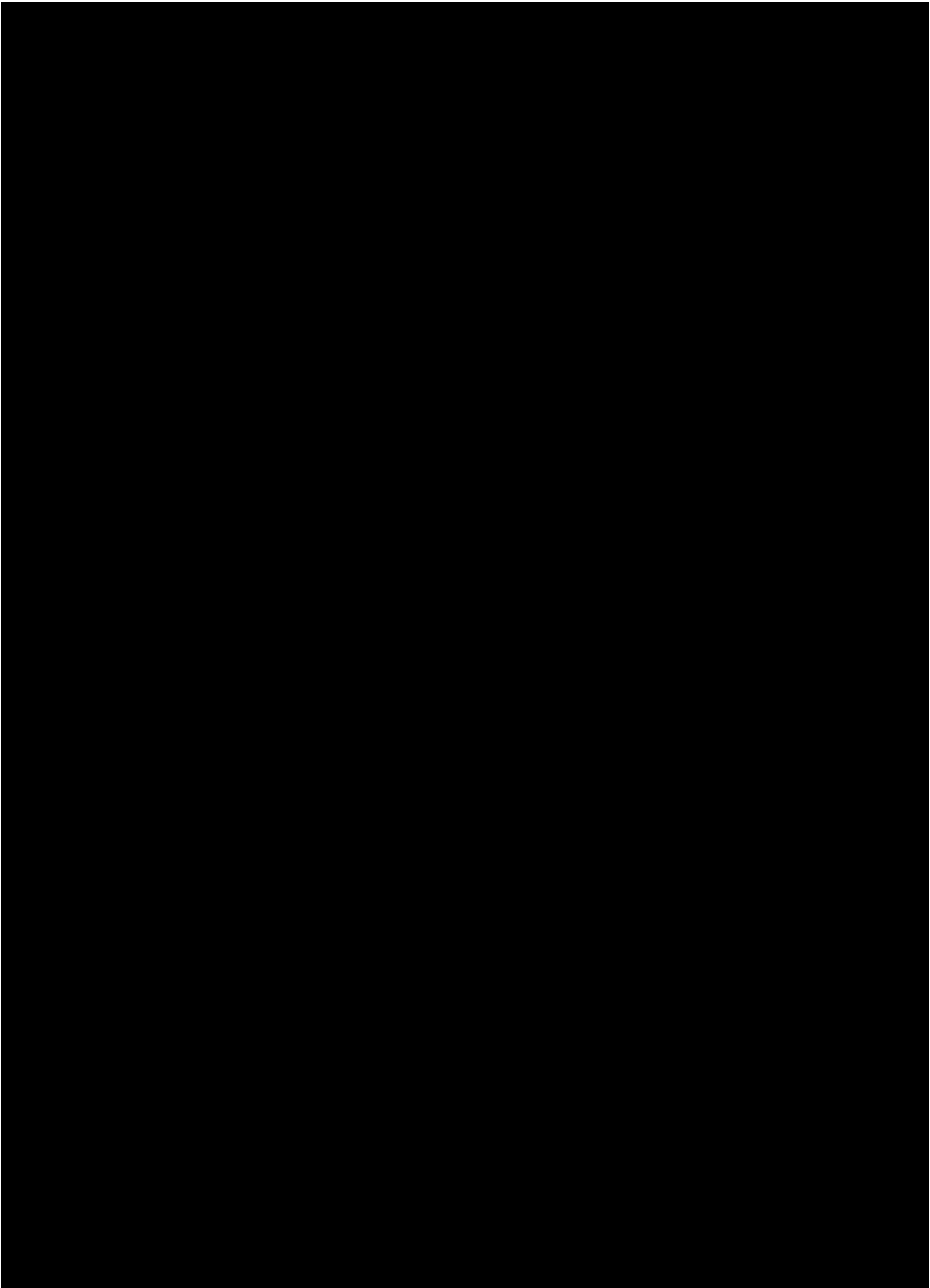
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

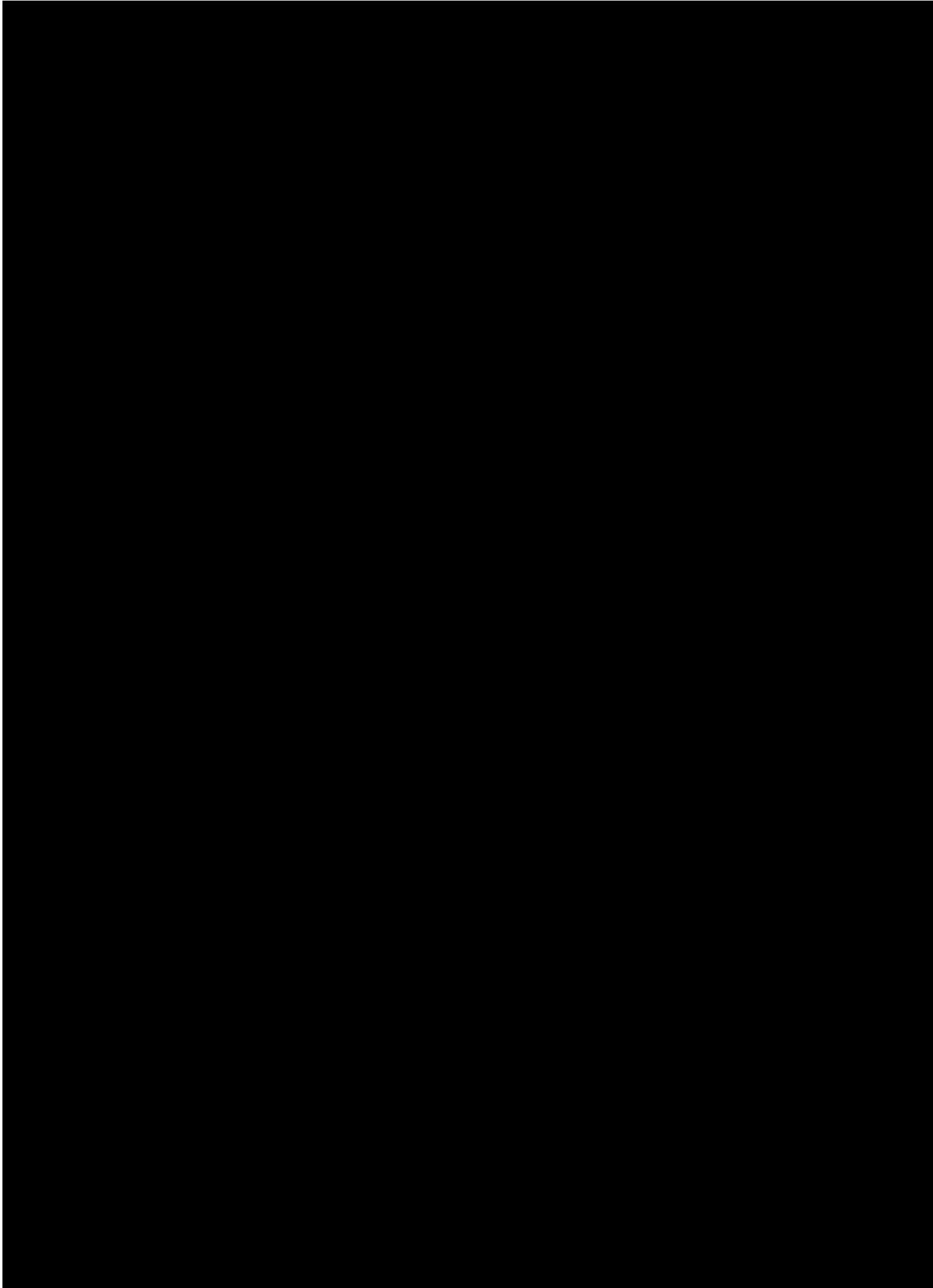
Respondents

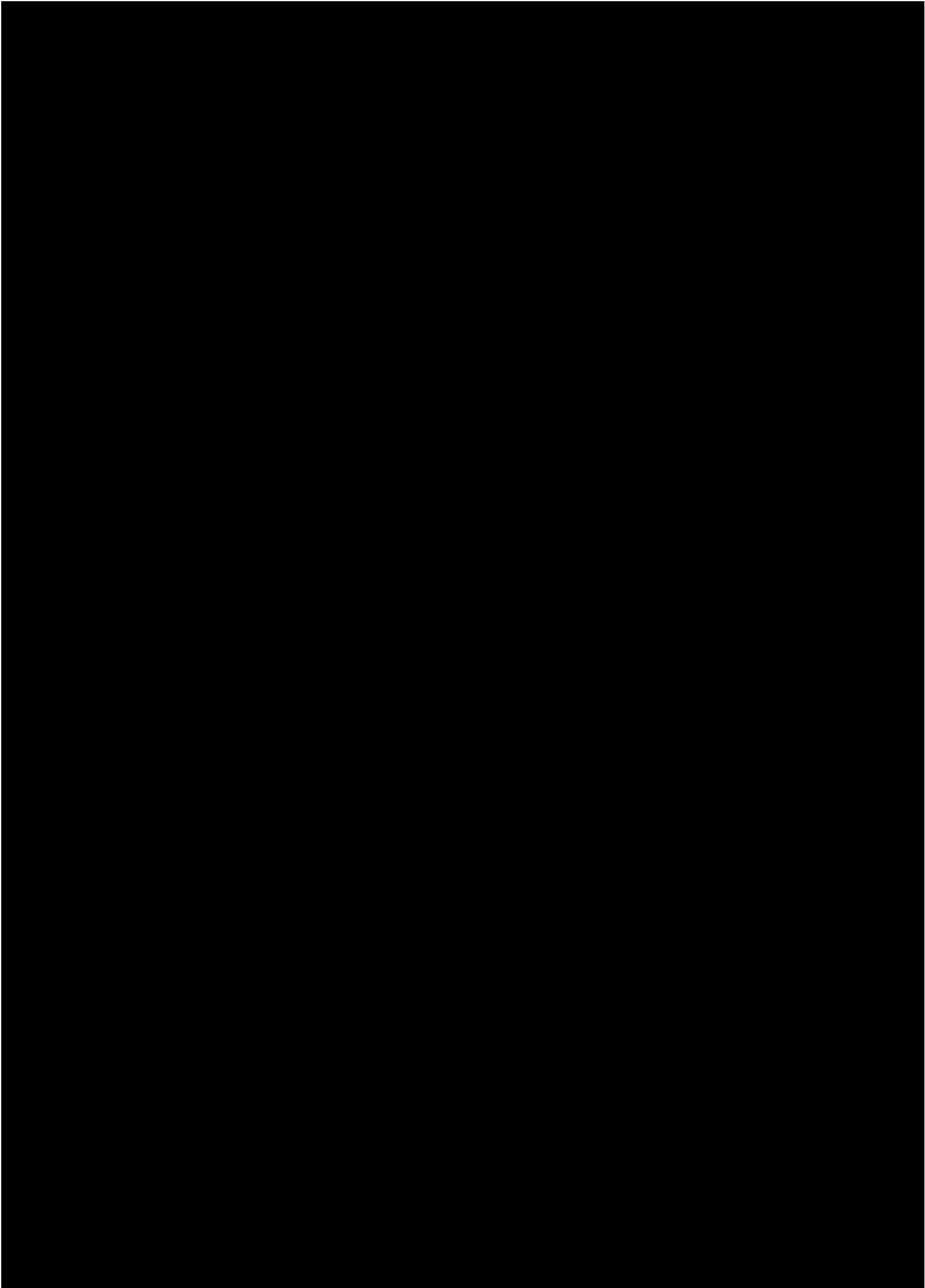
CONFIDENTIAL ANNEXURE AIB-44

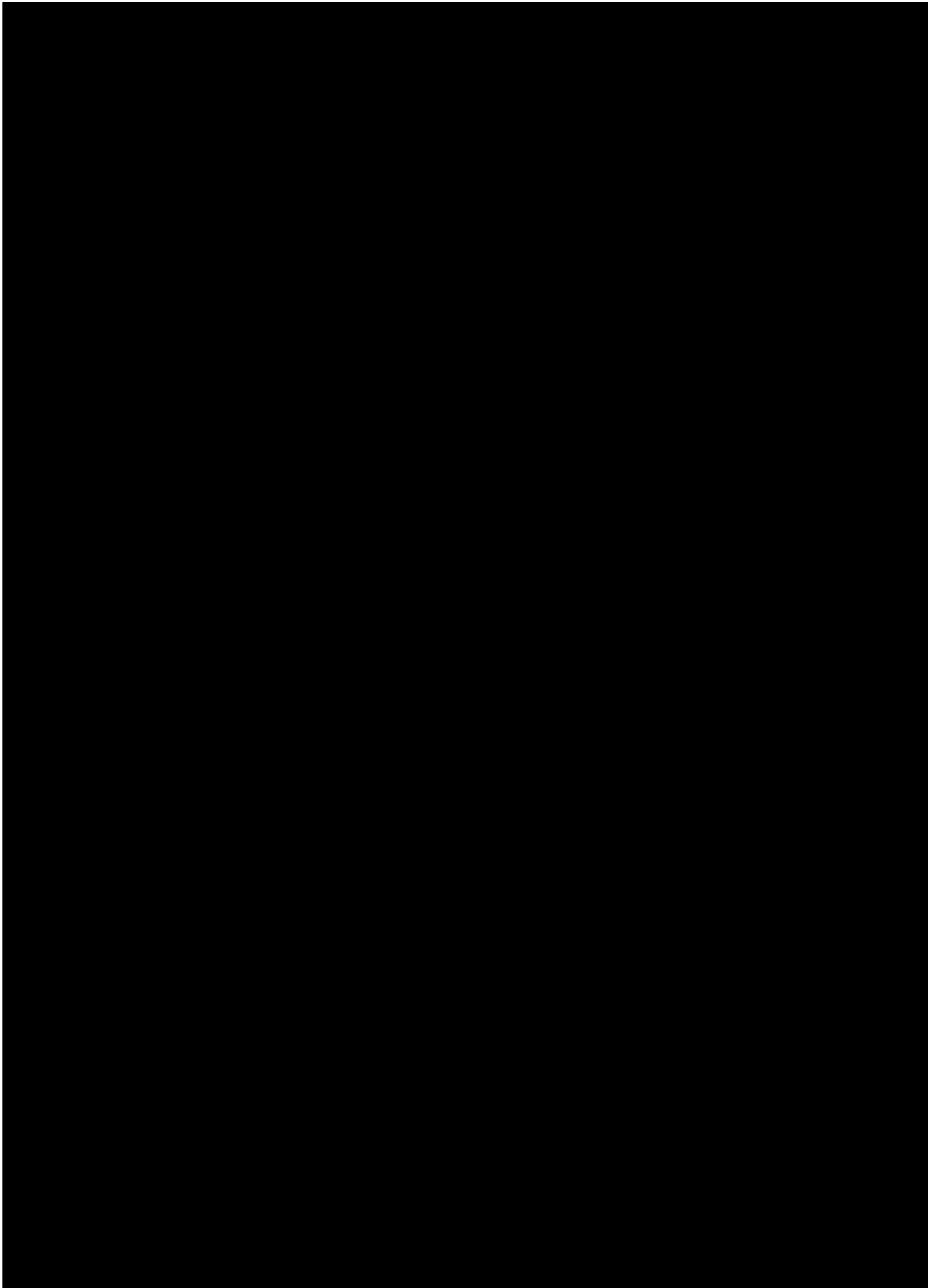
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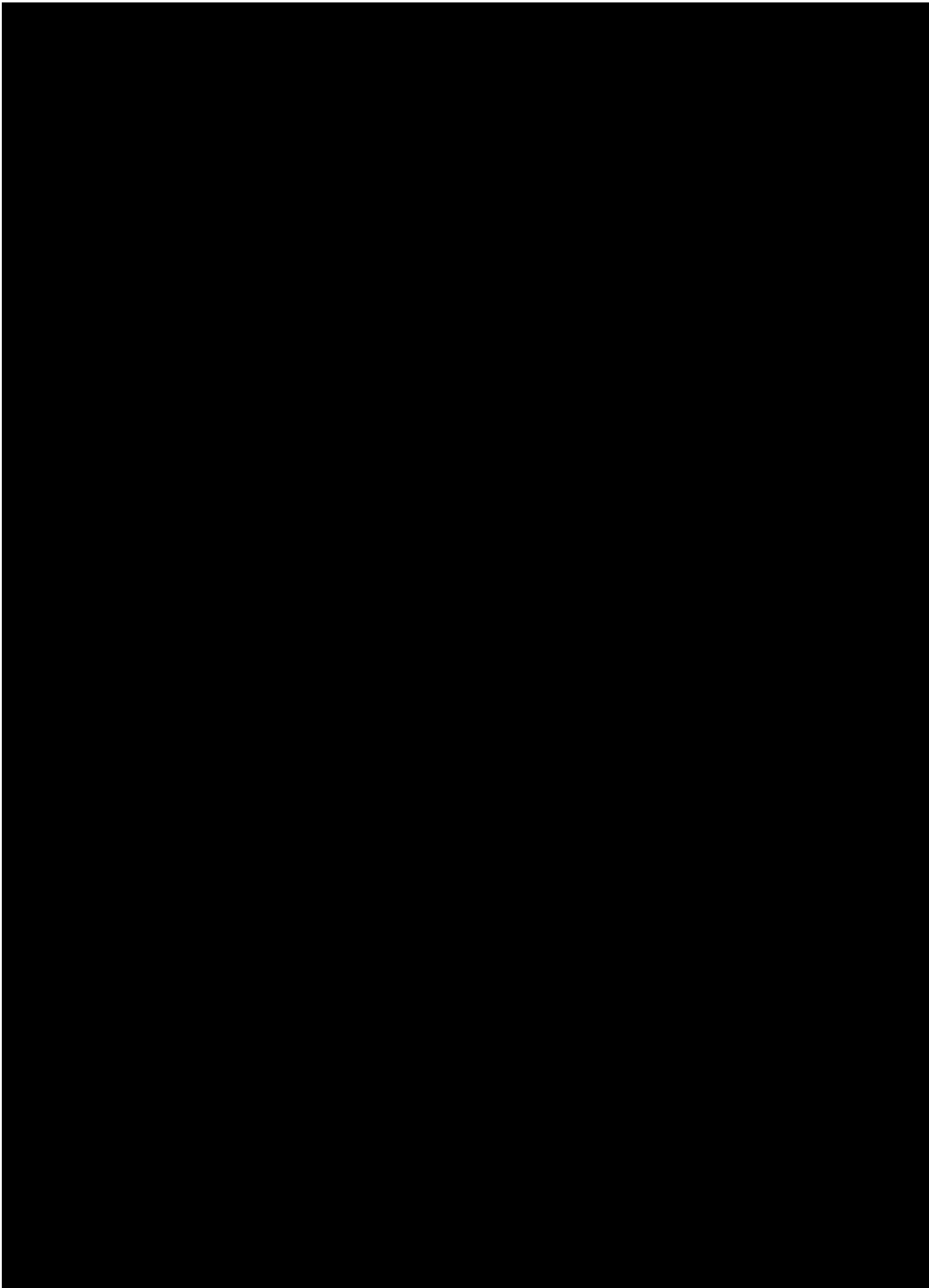
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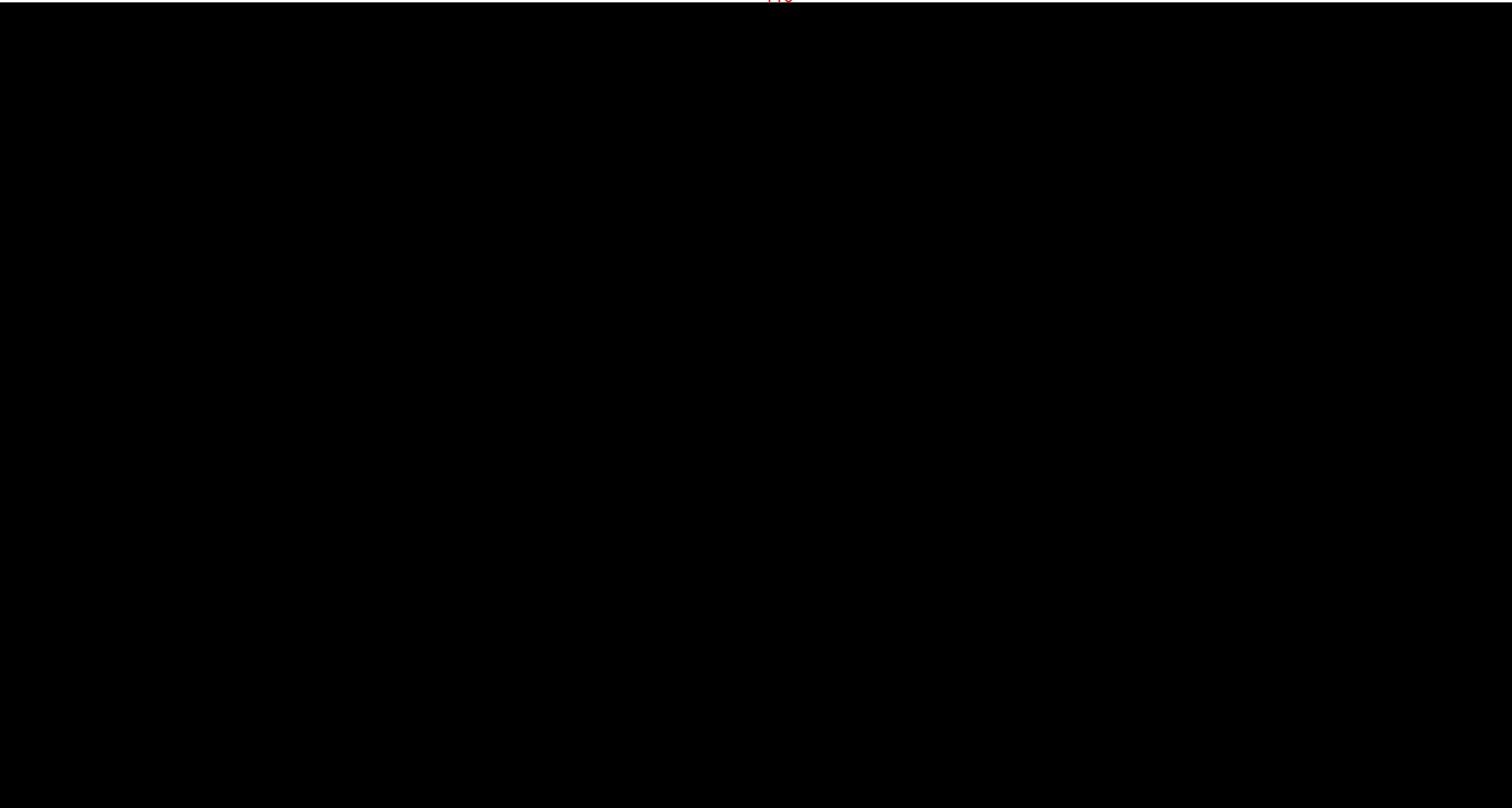












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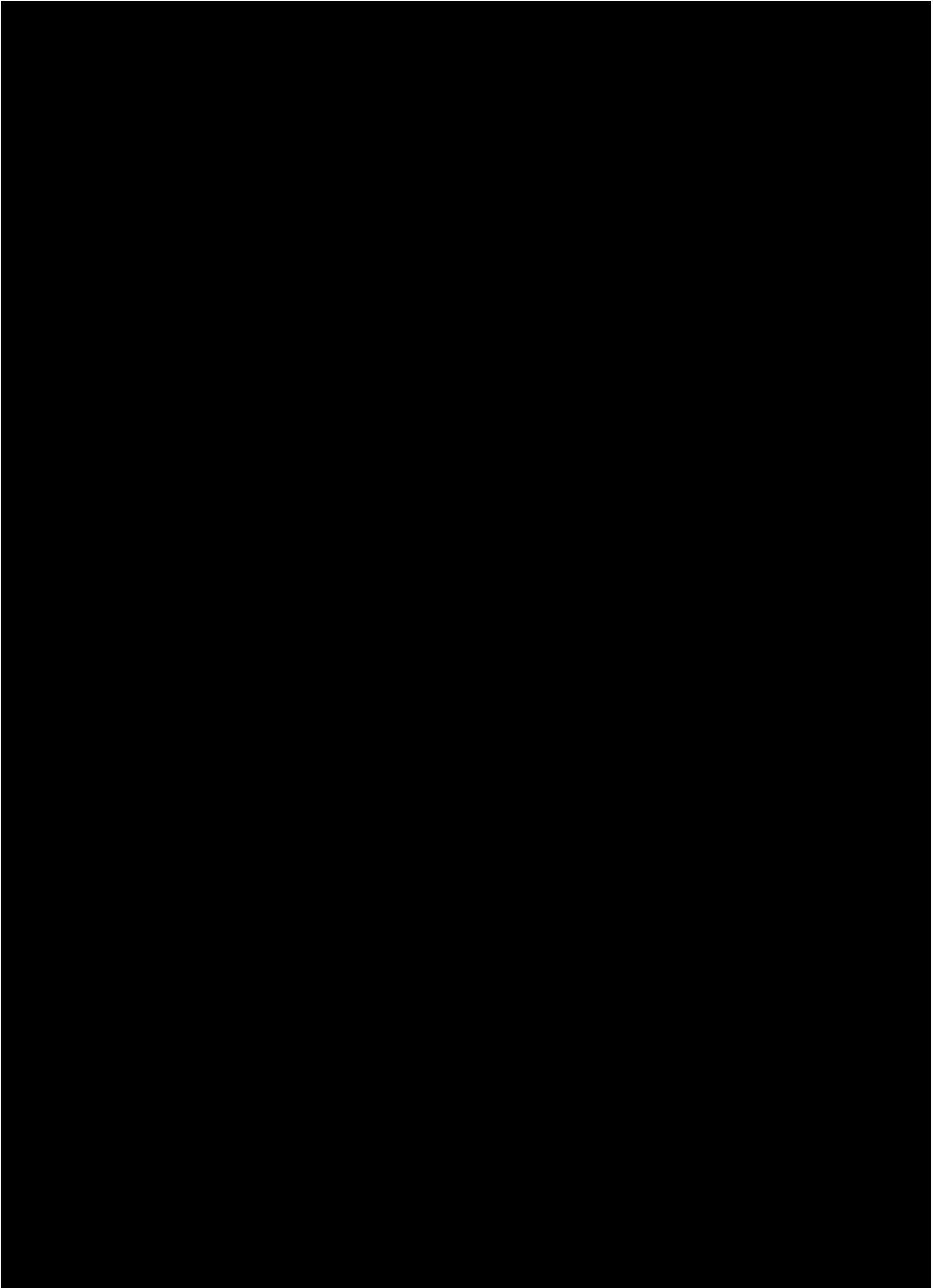
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

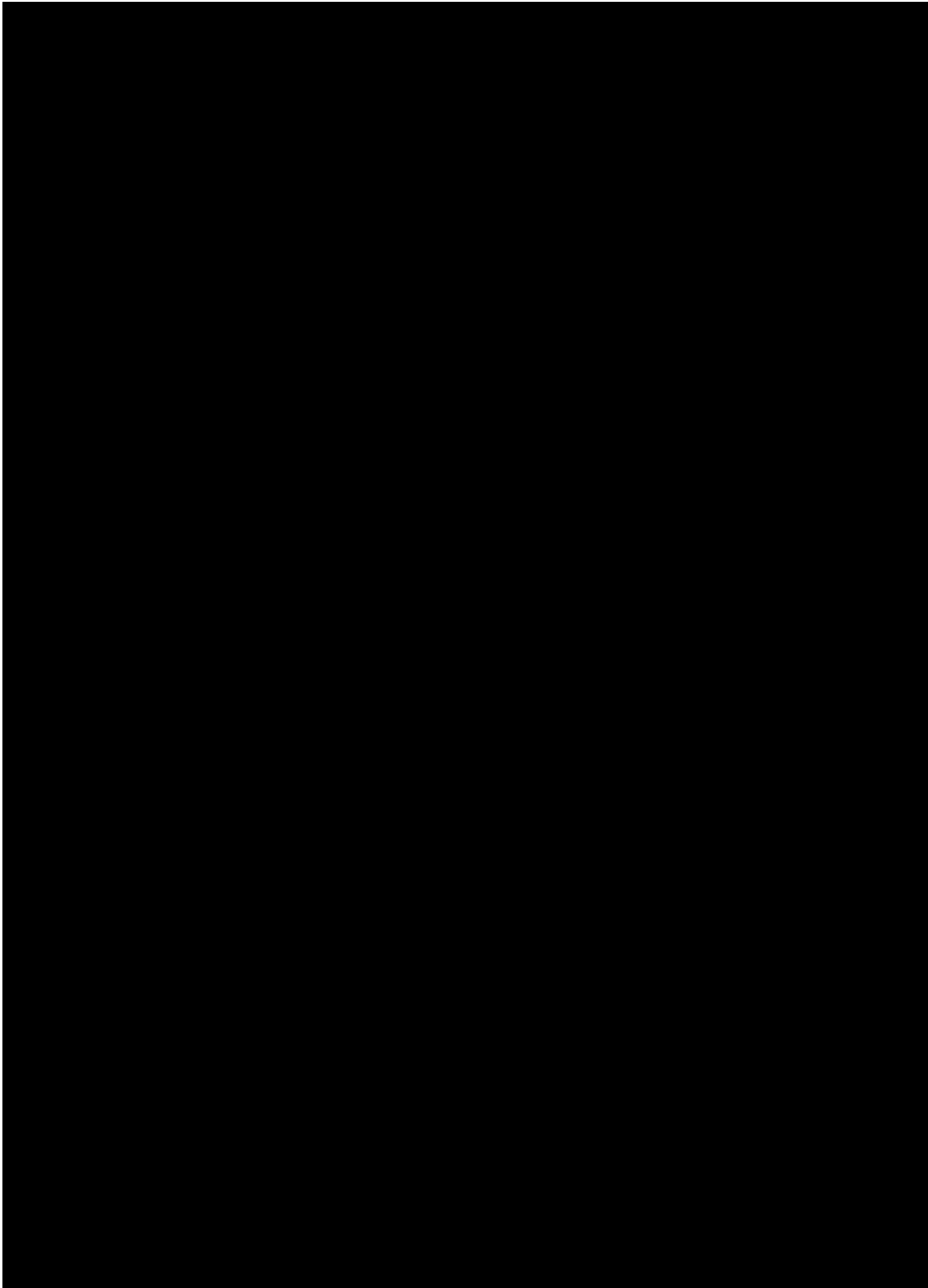
Respondents

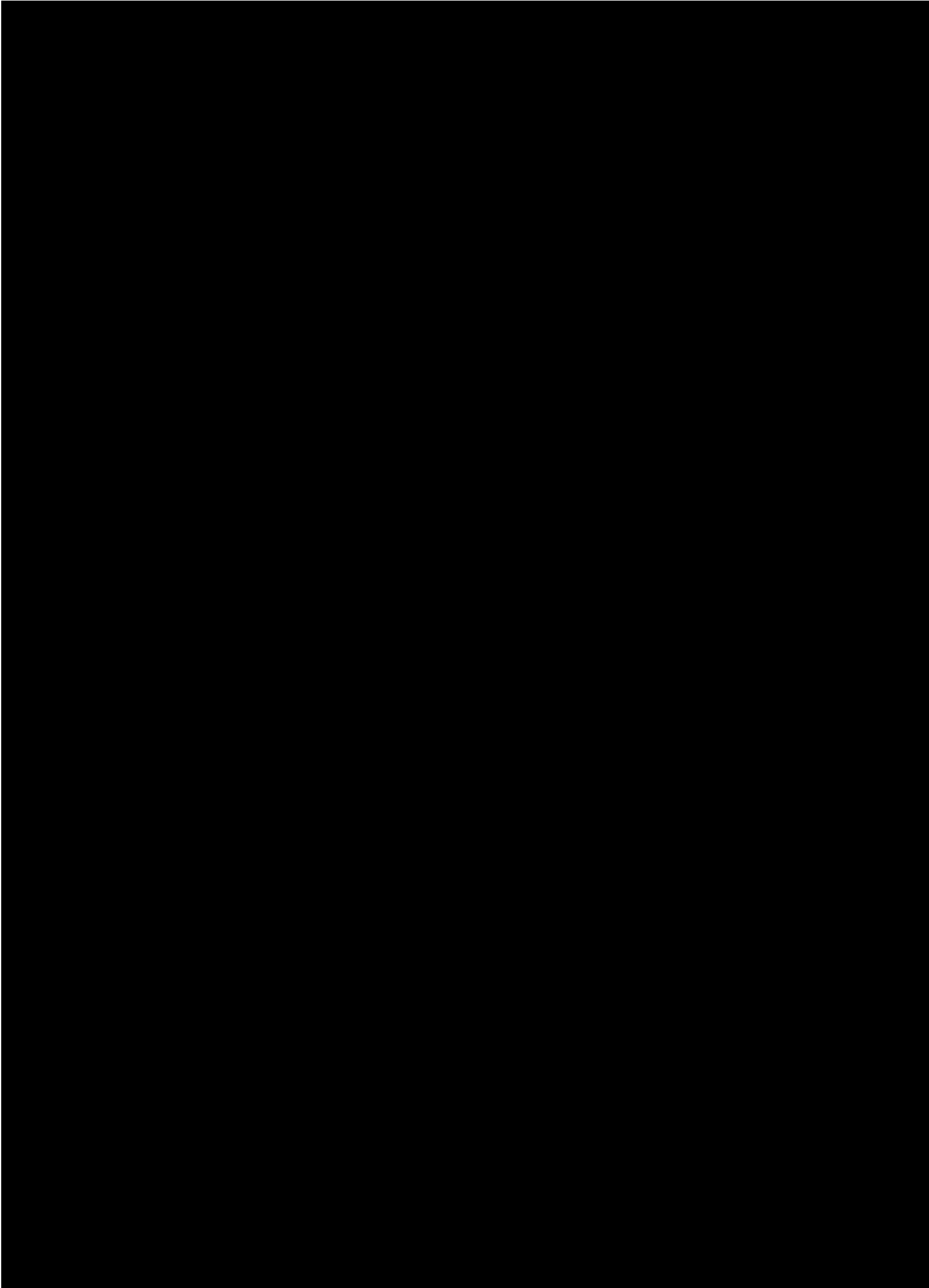
CONFIDENTIAL ANNEXURE AIB-45

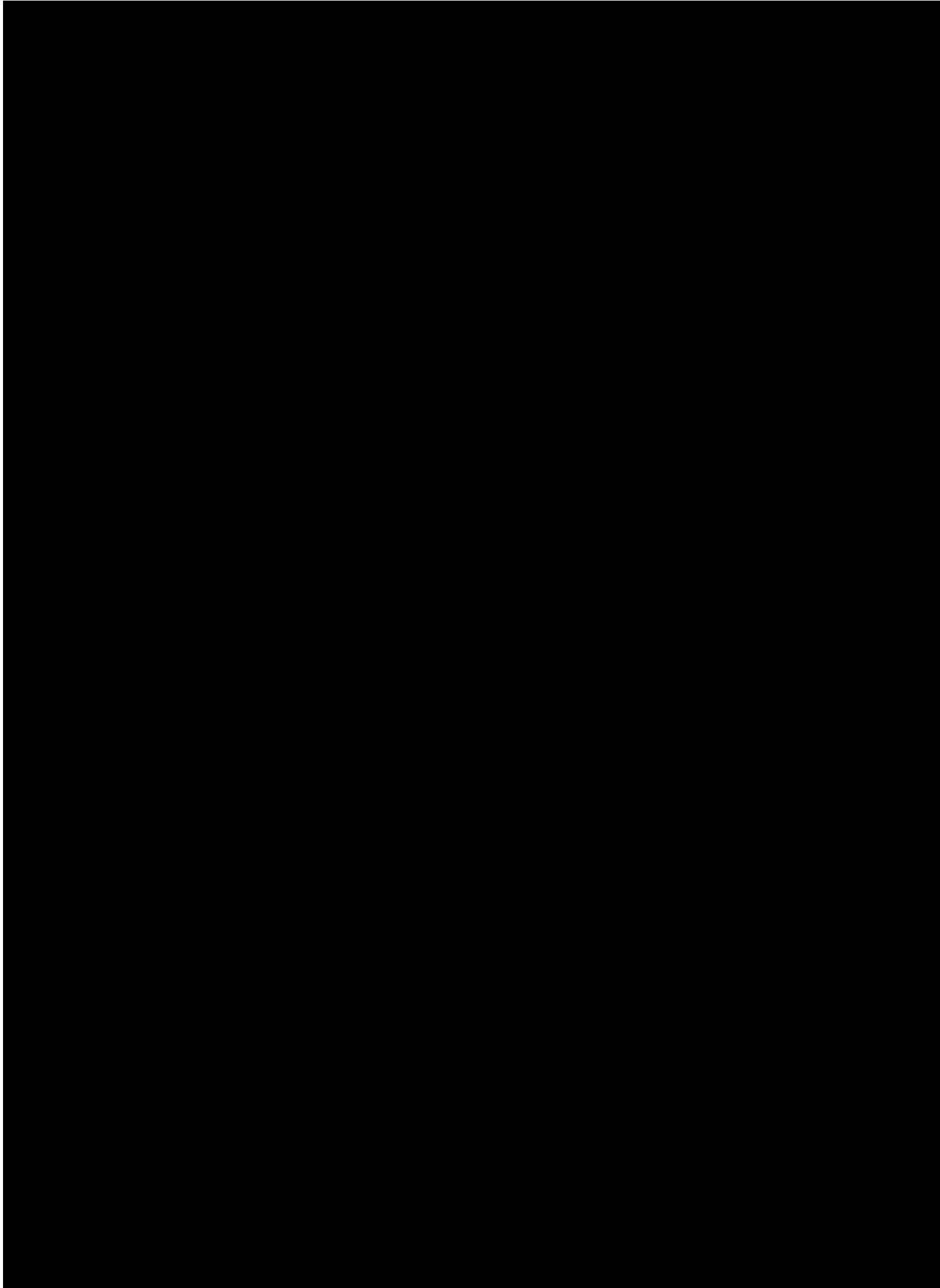
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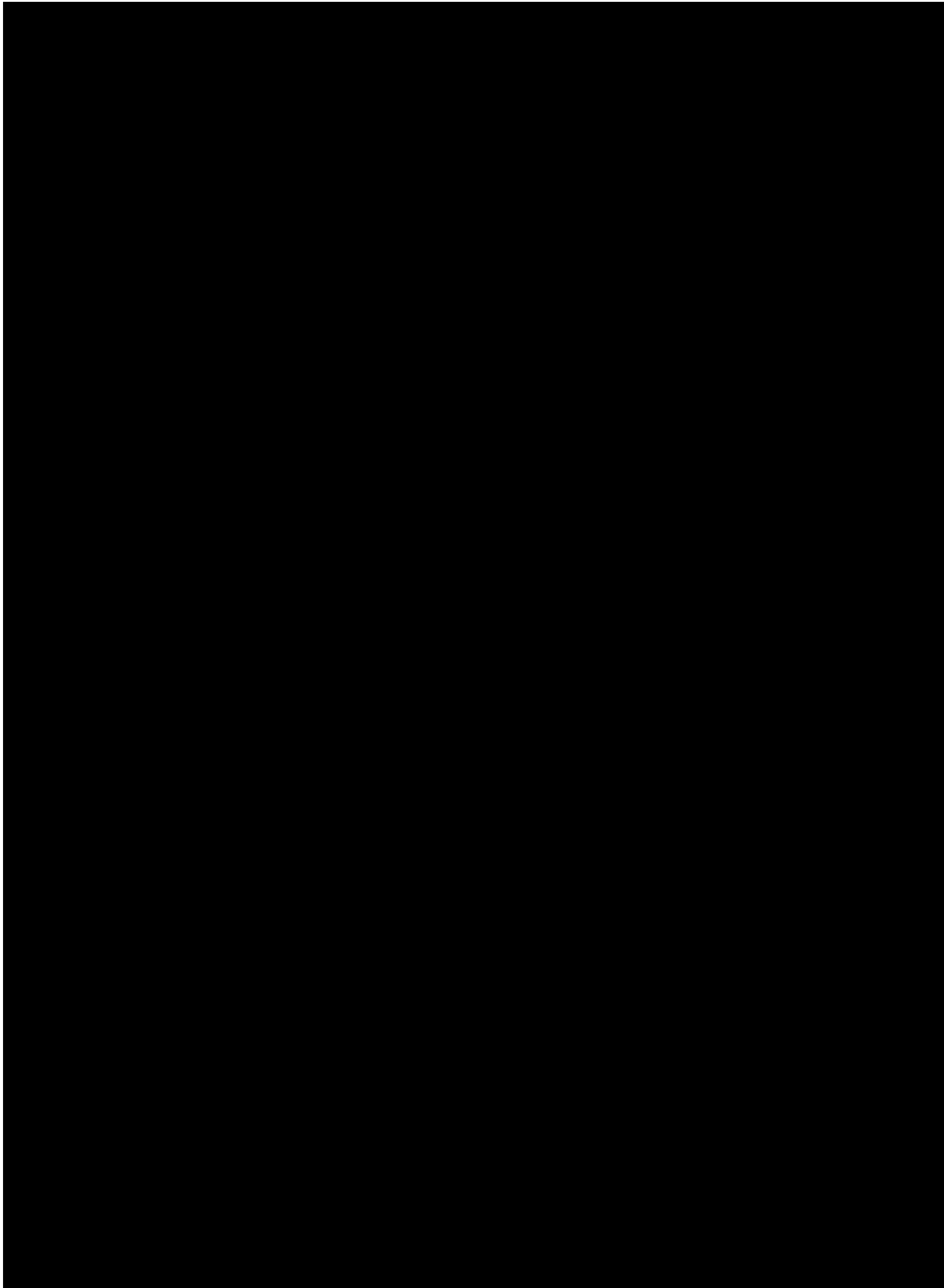
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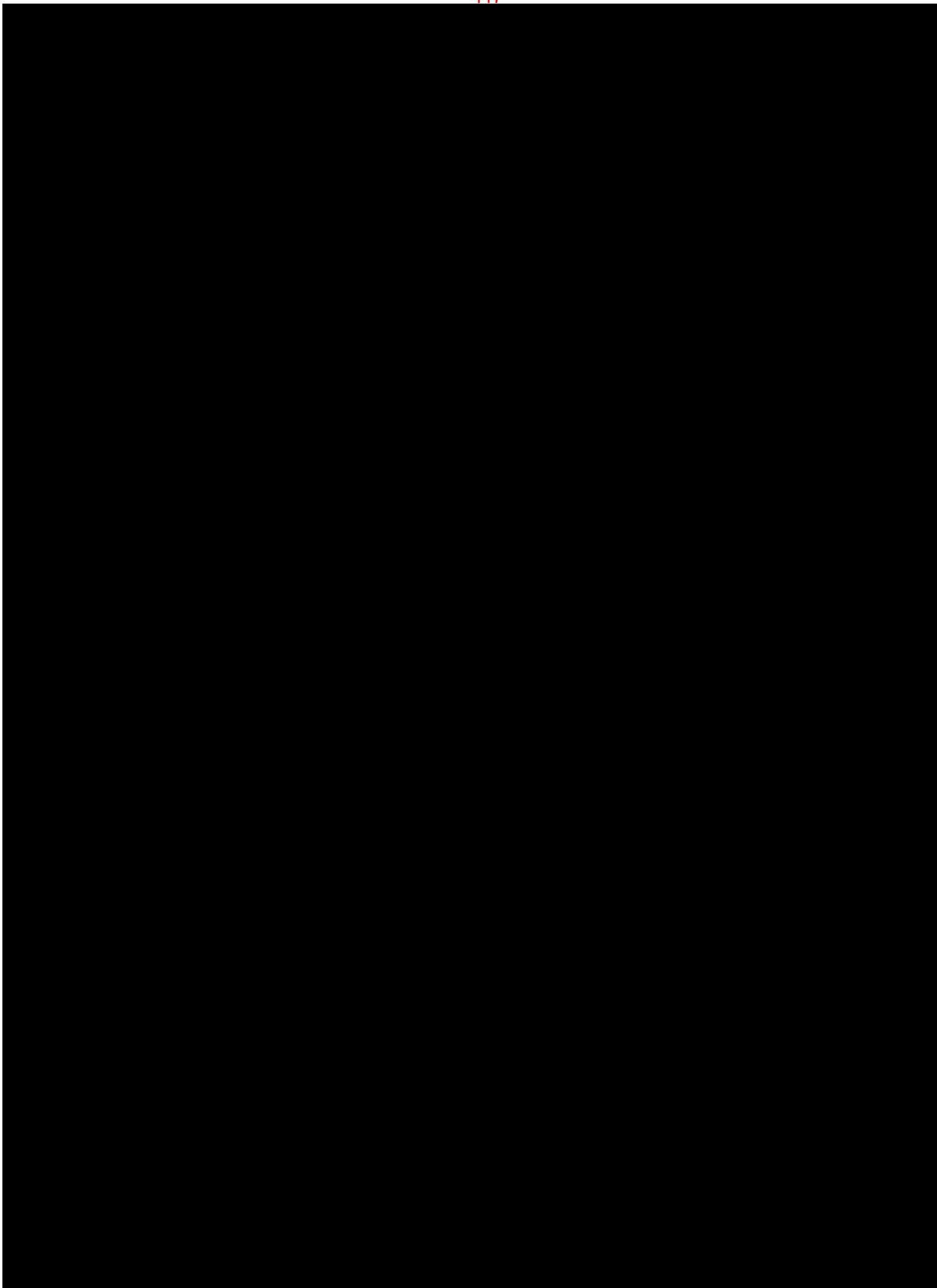


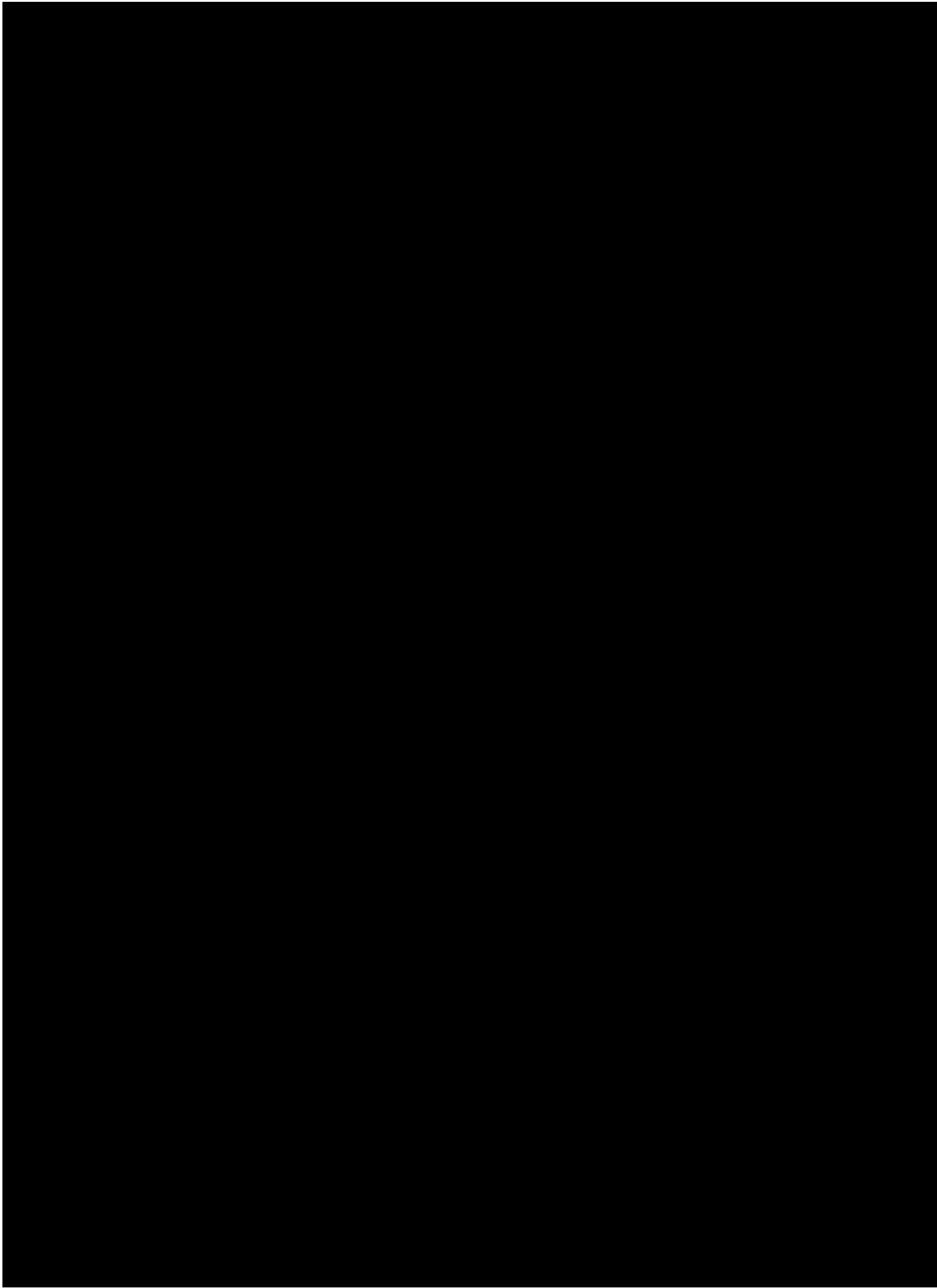


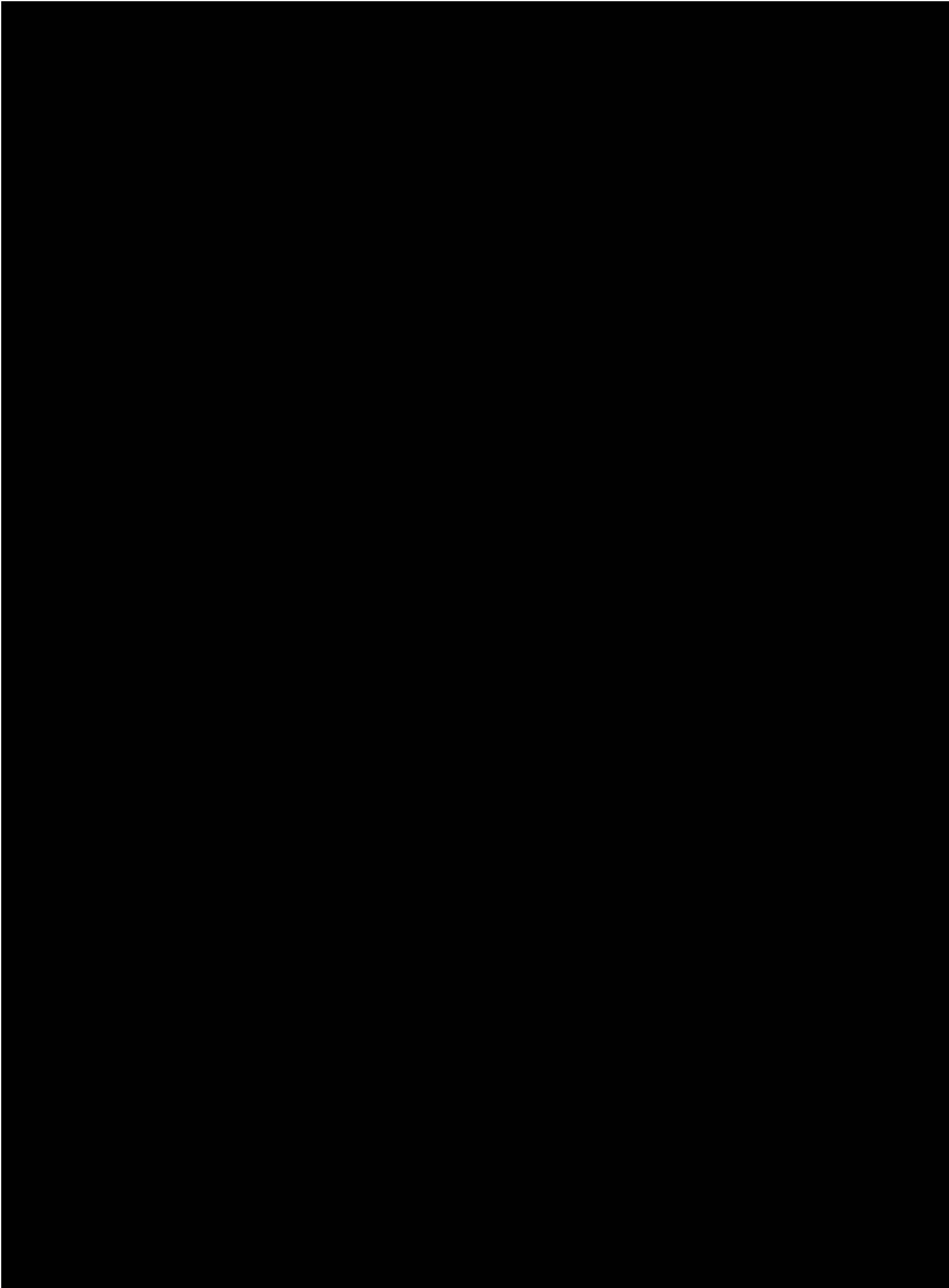


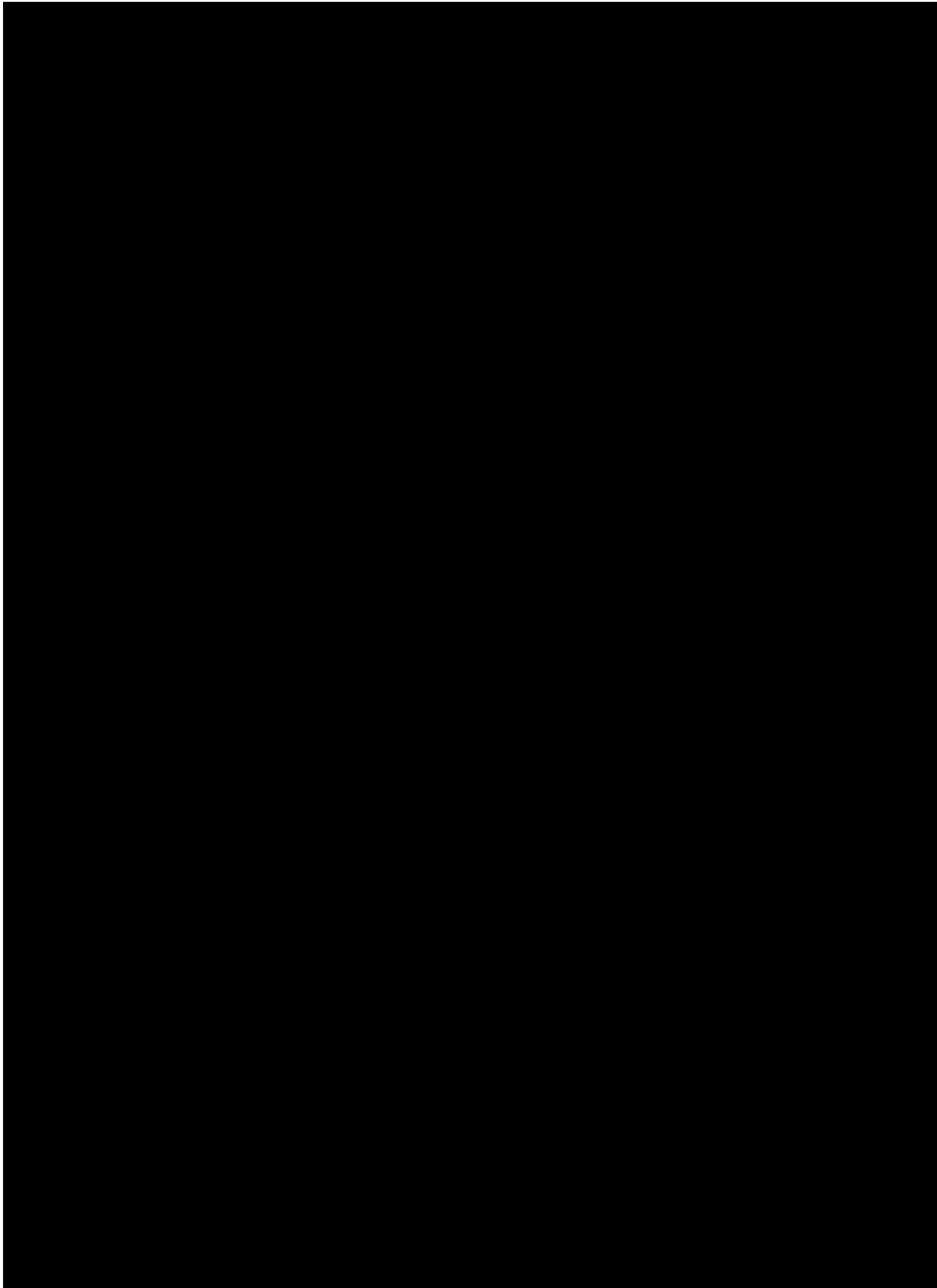


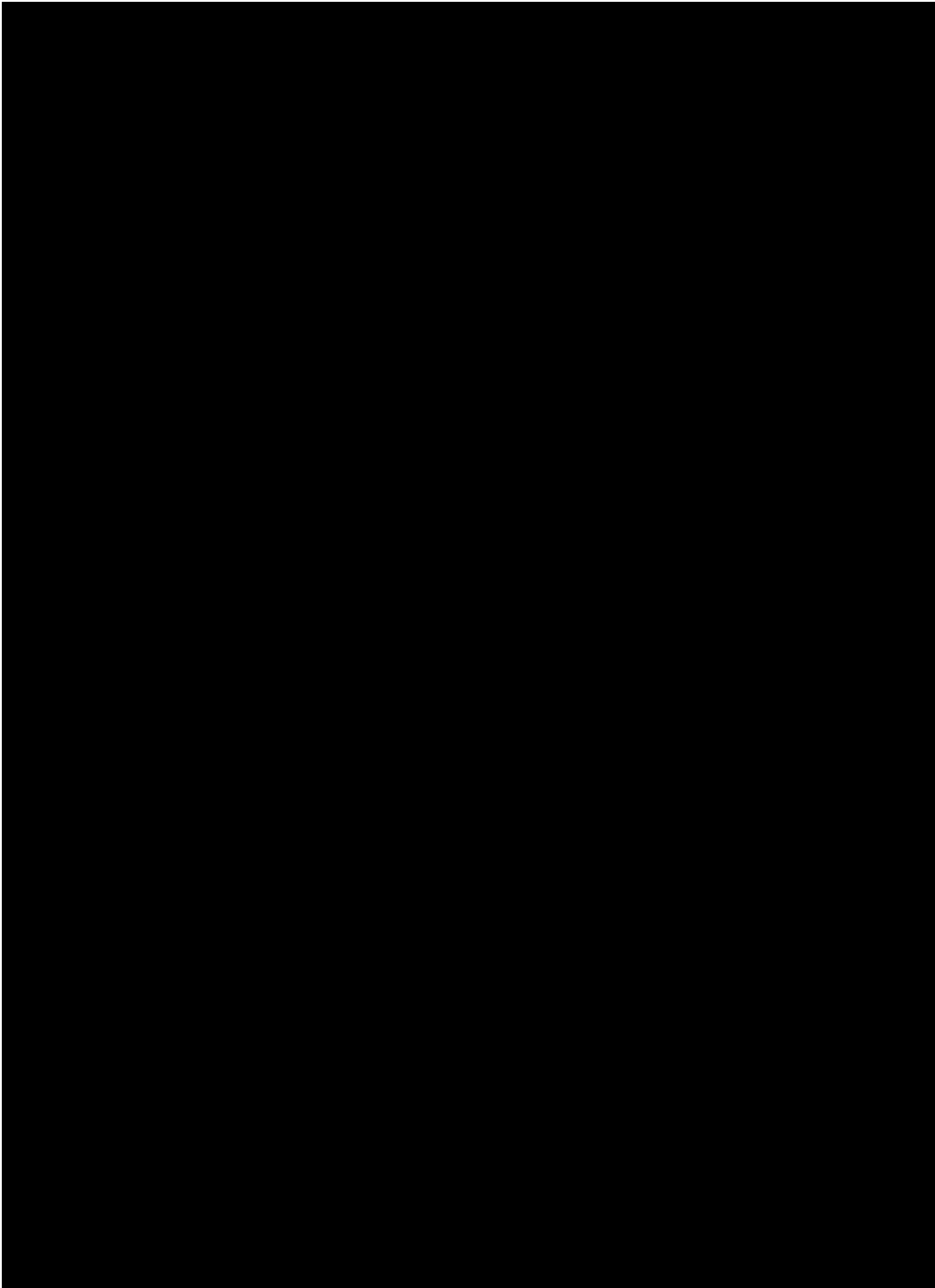


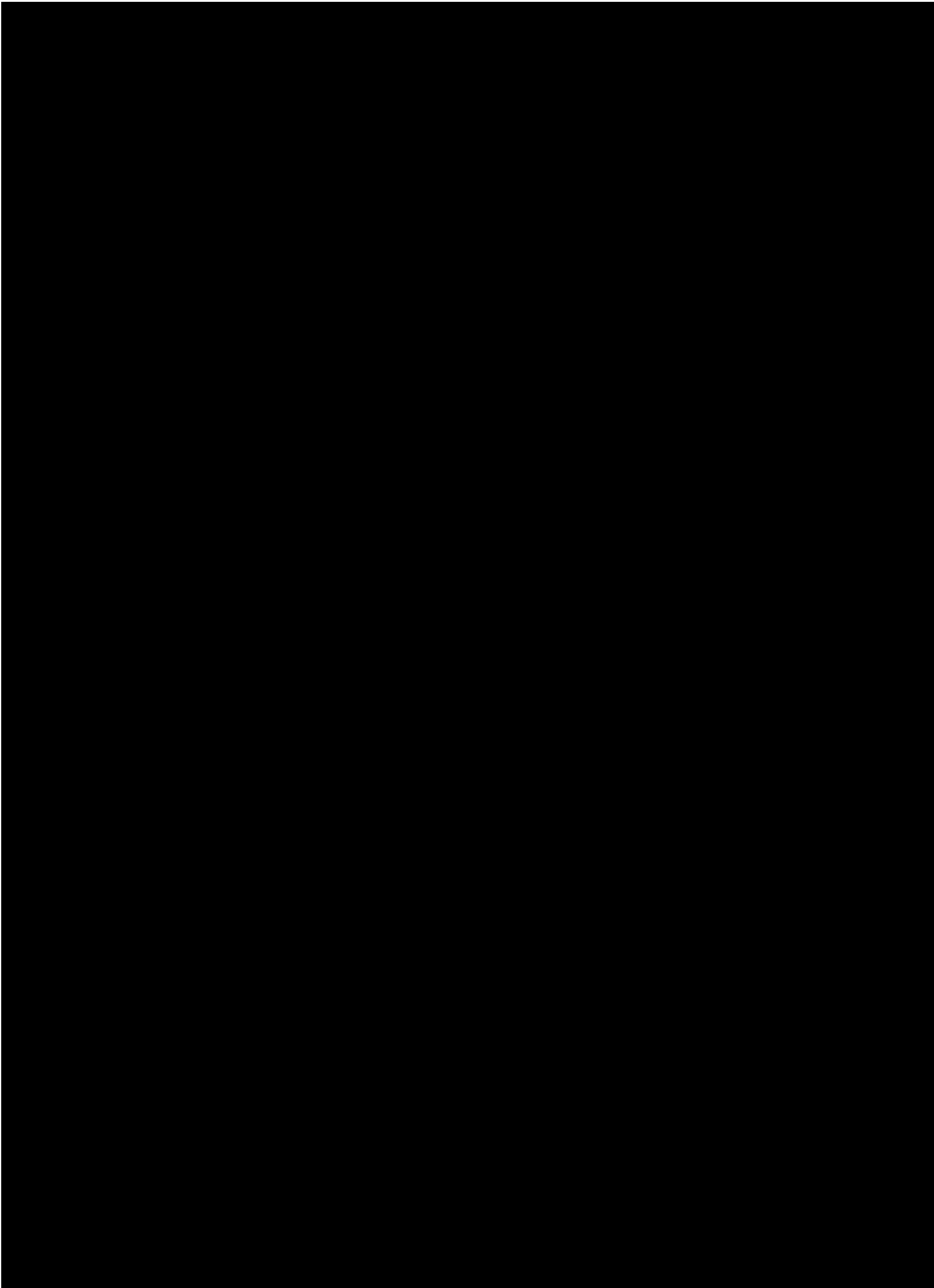


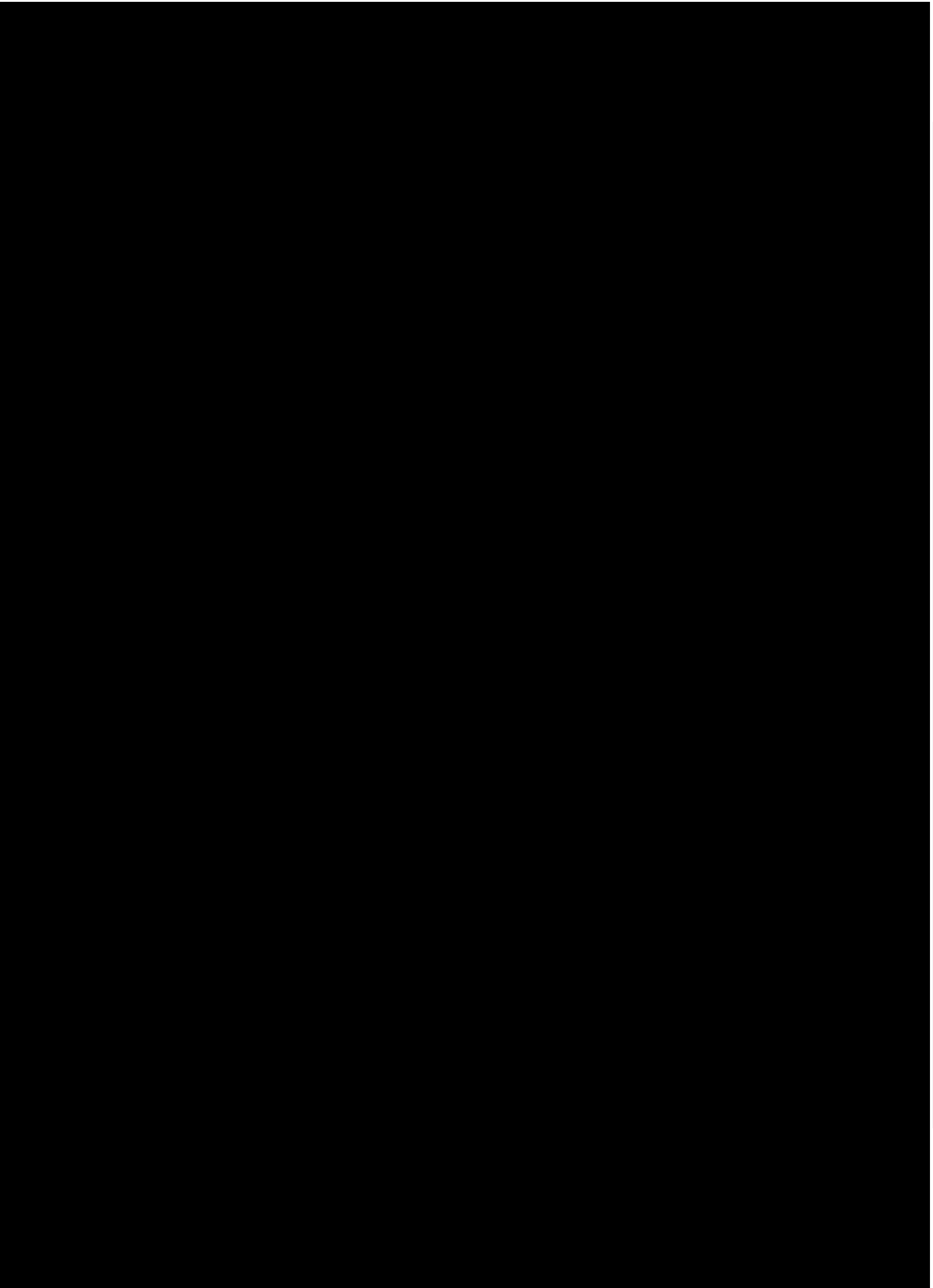


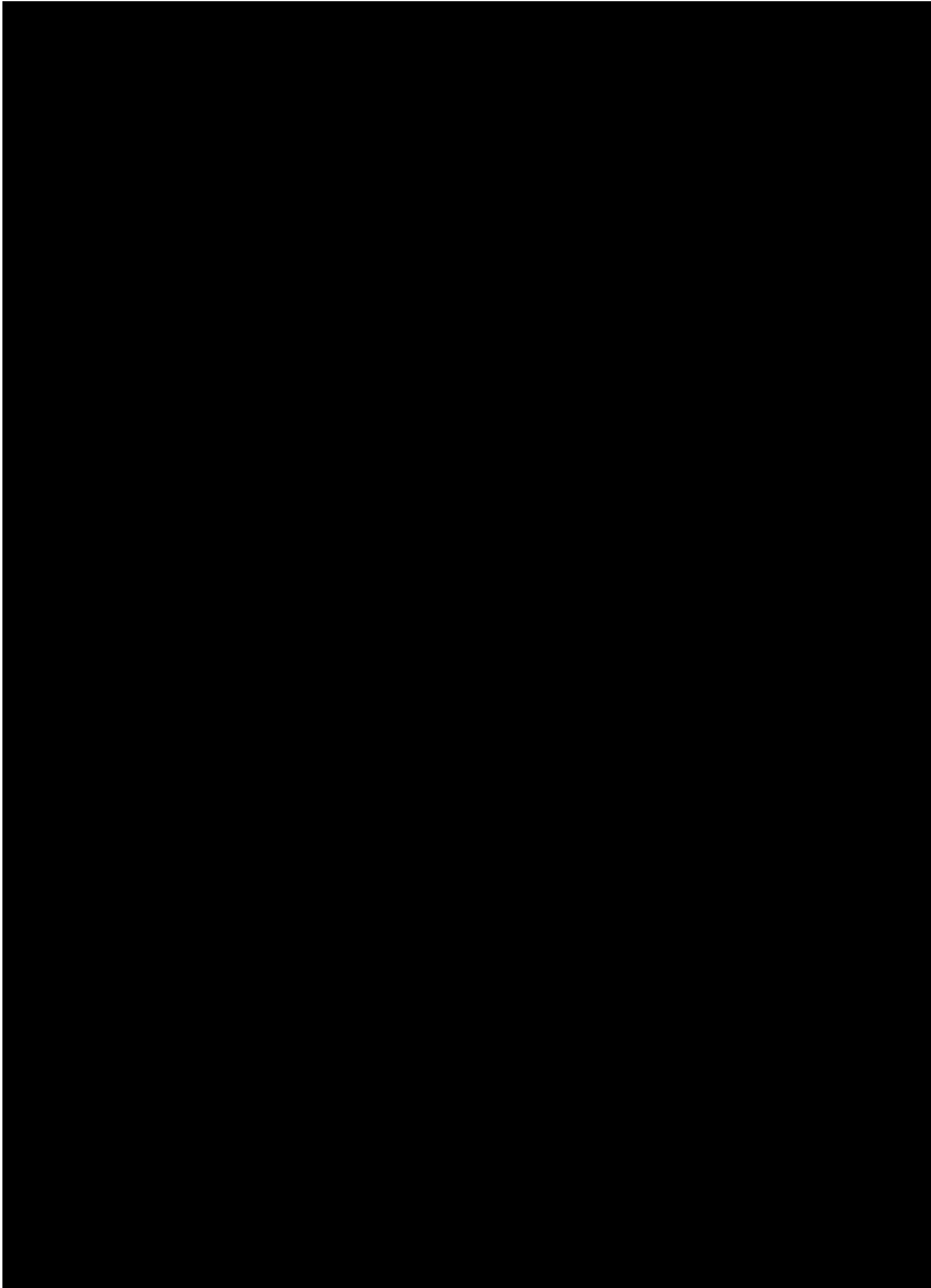


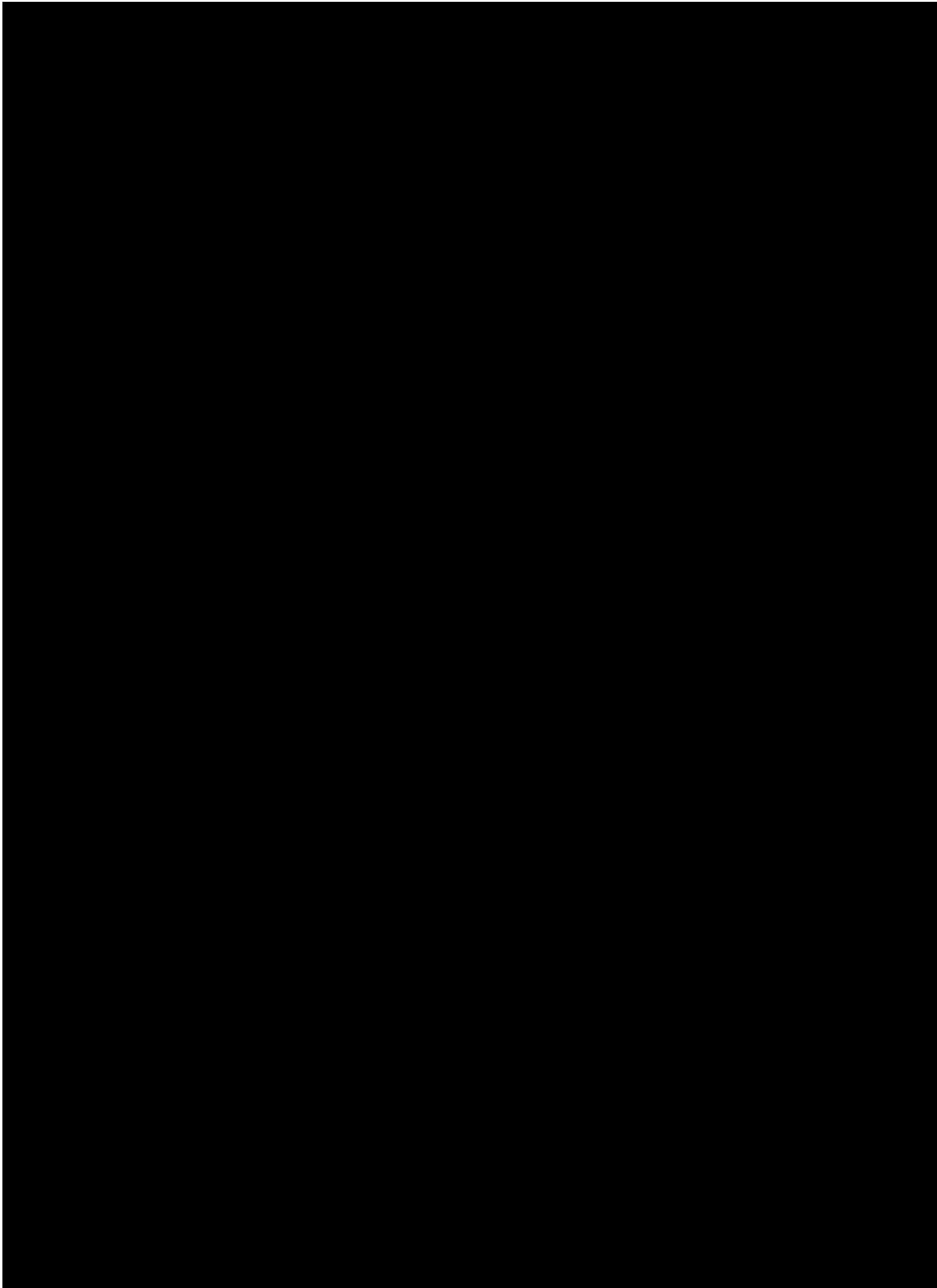


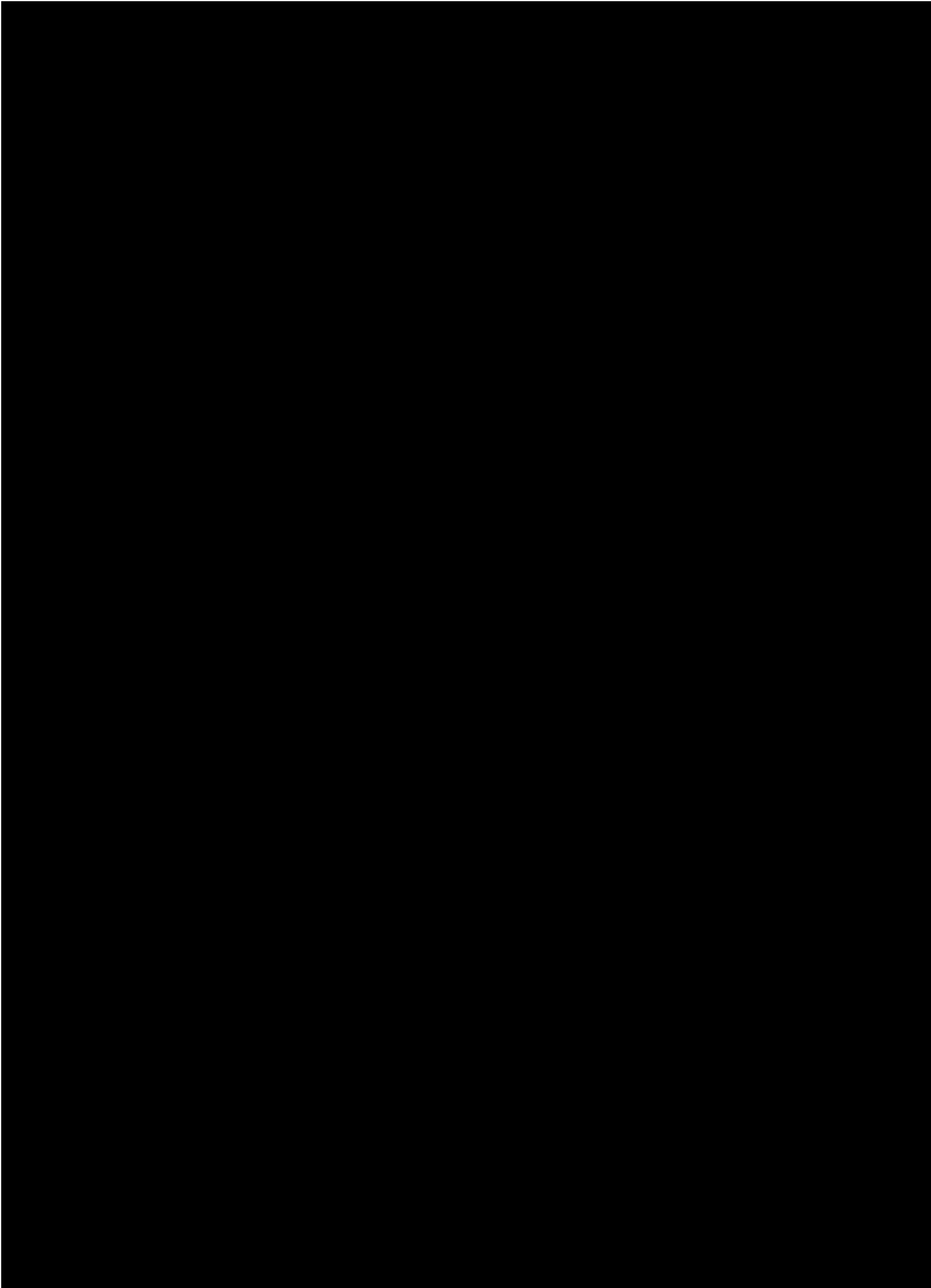


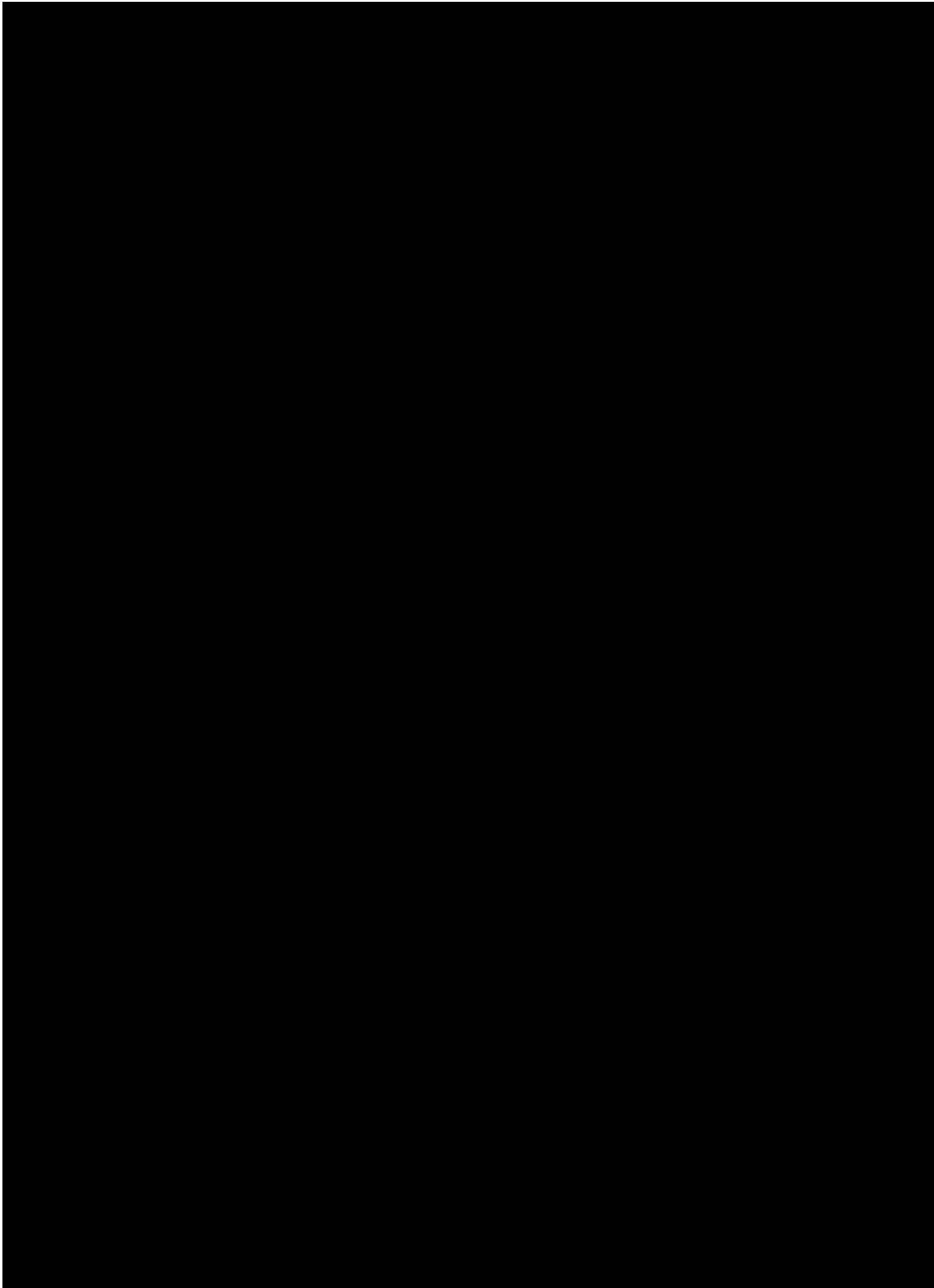


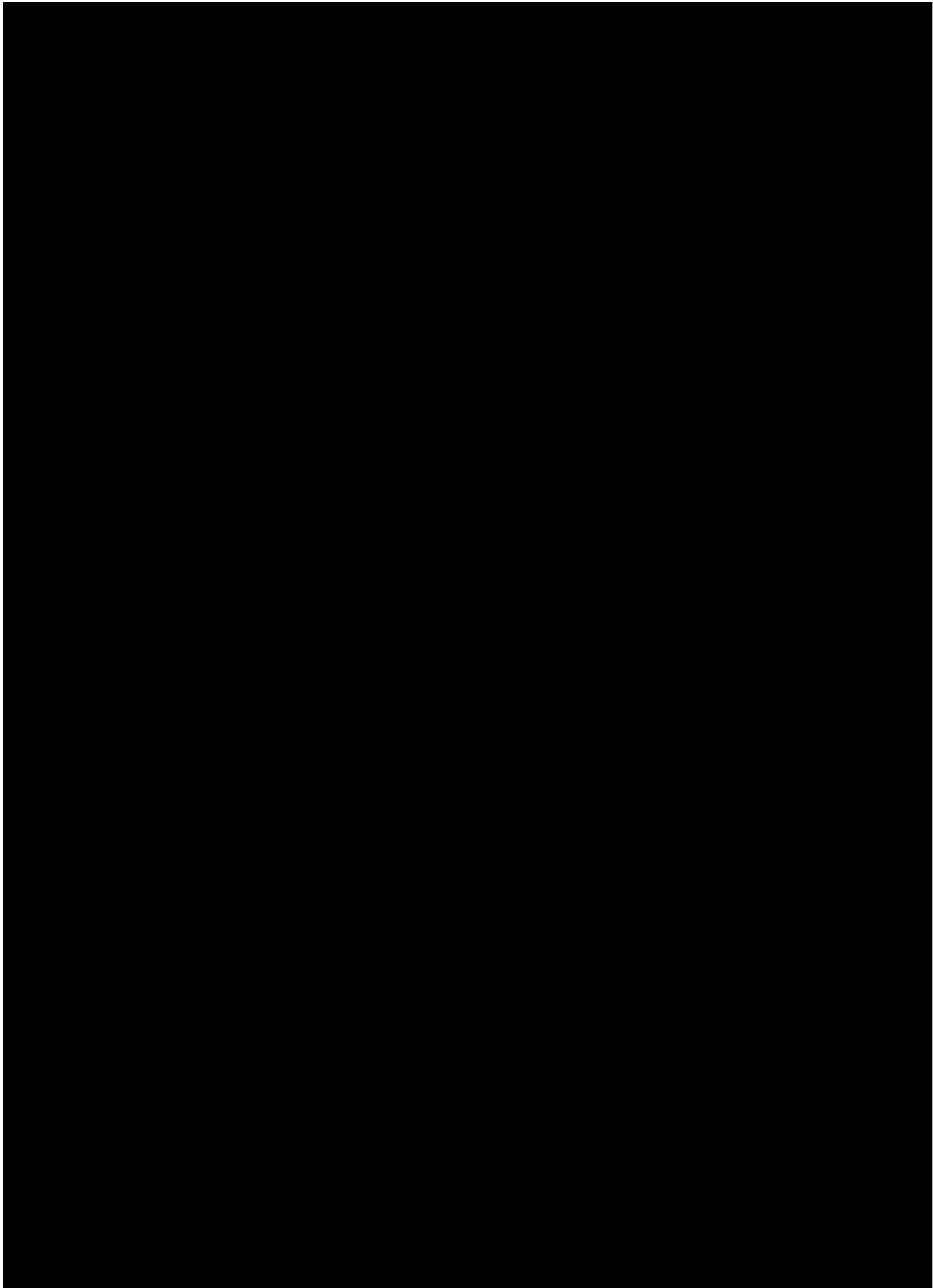


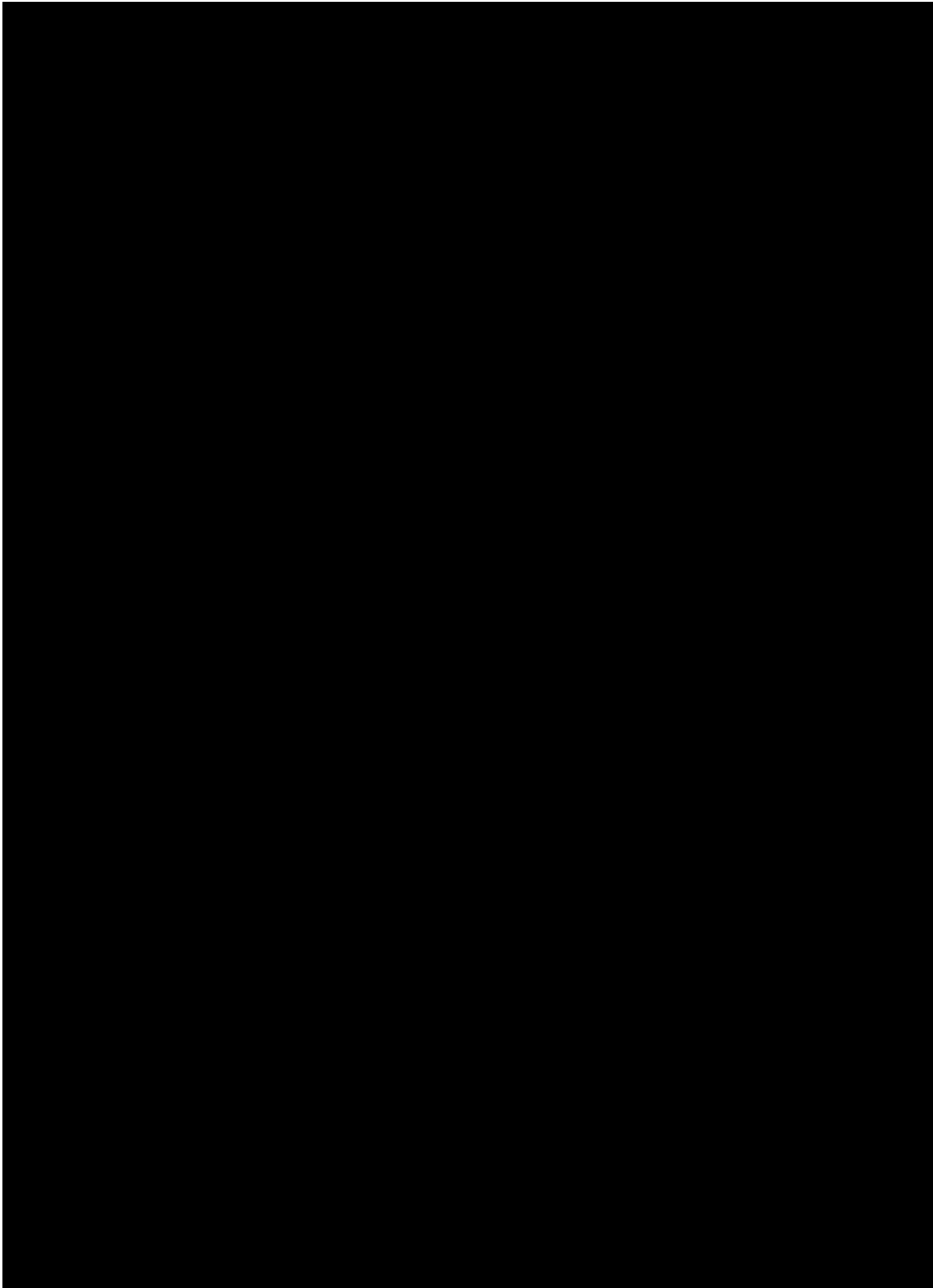


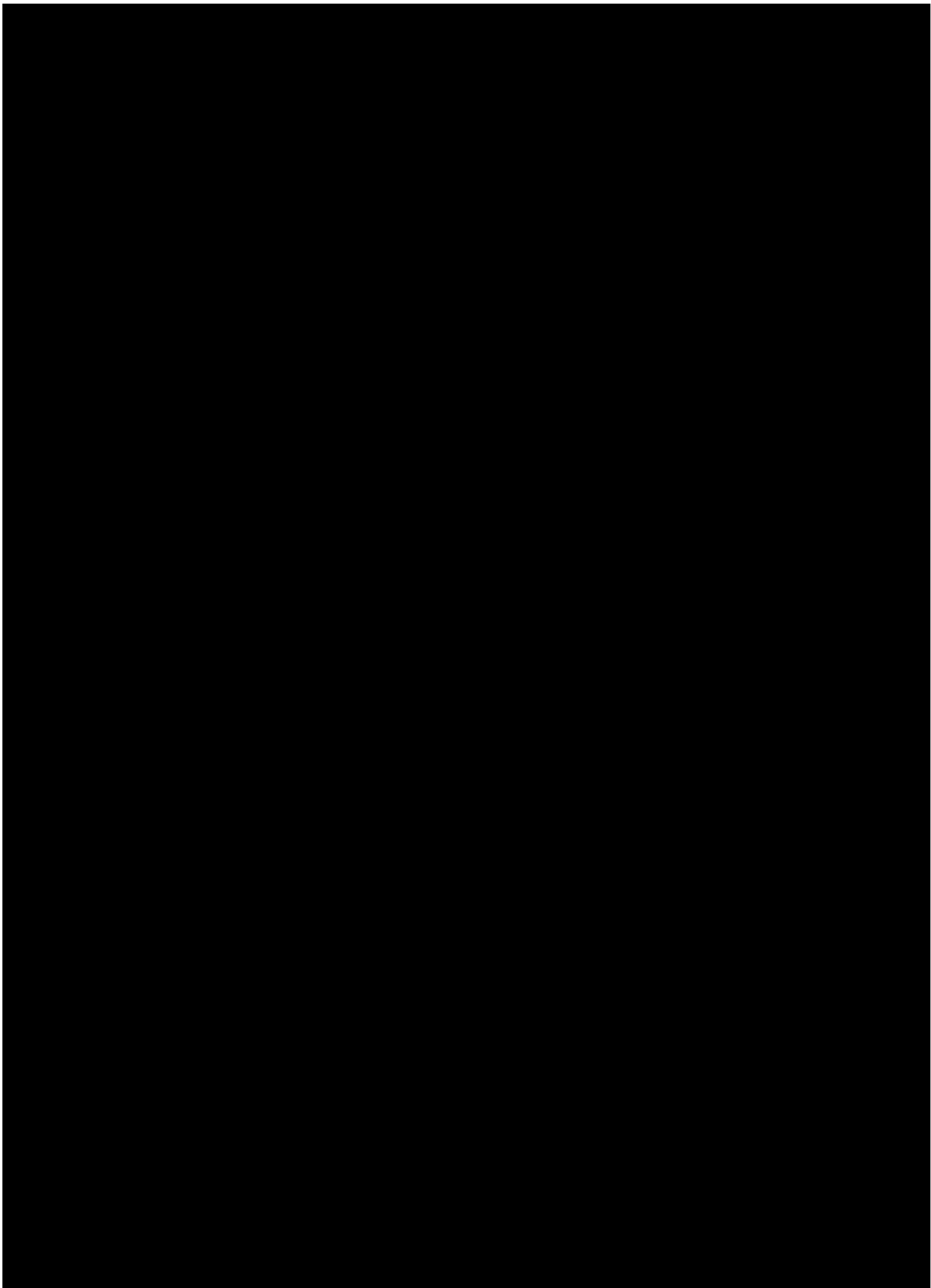


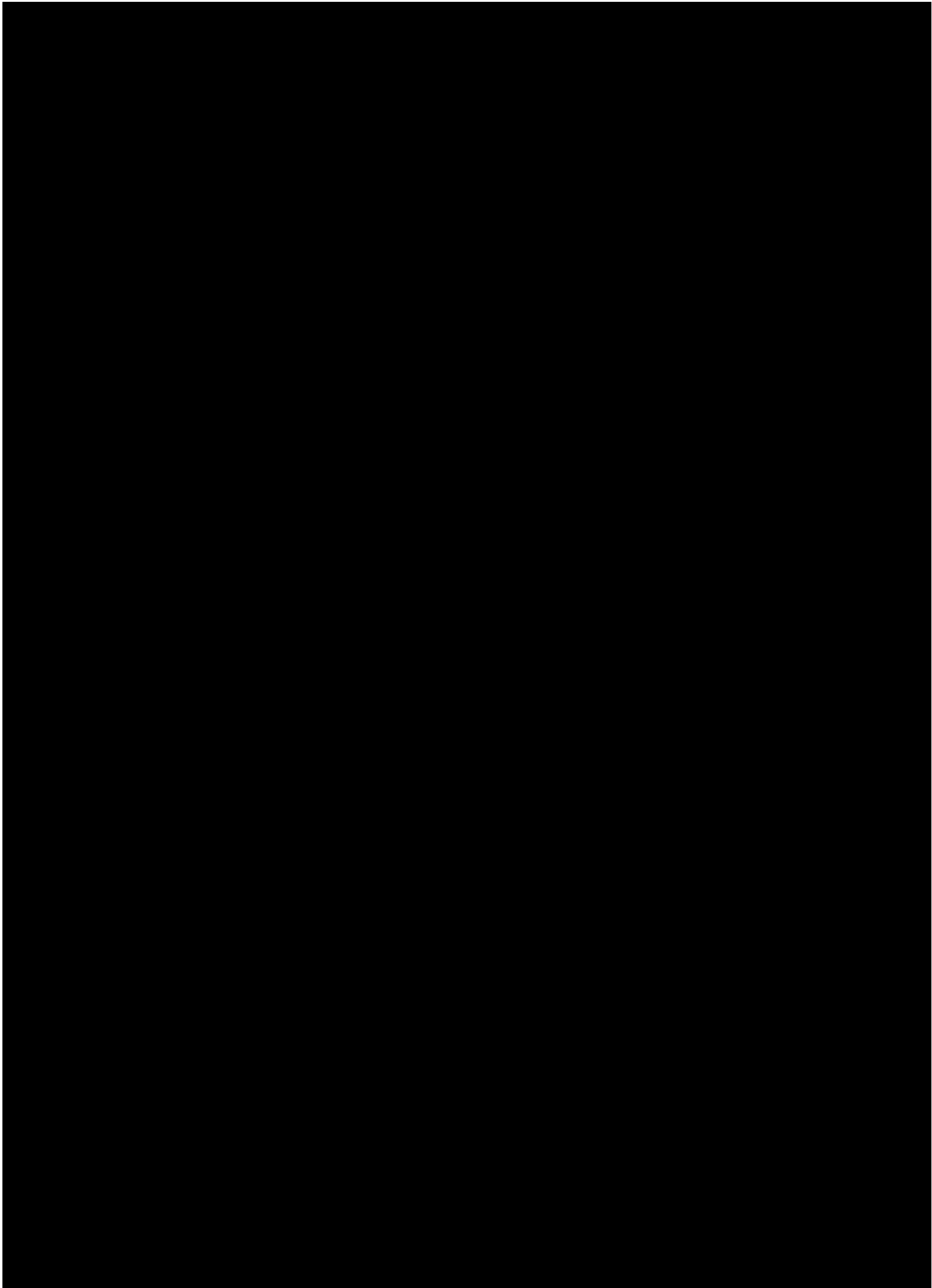


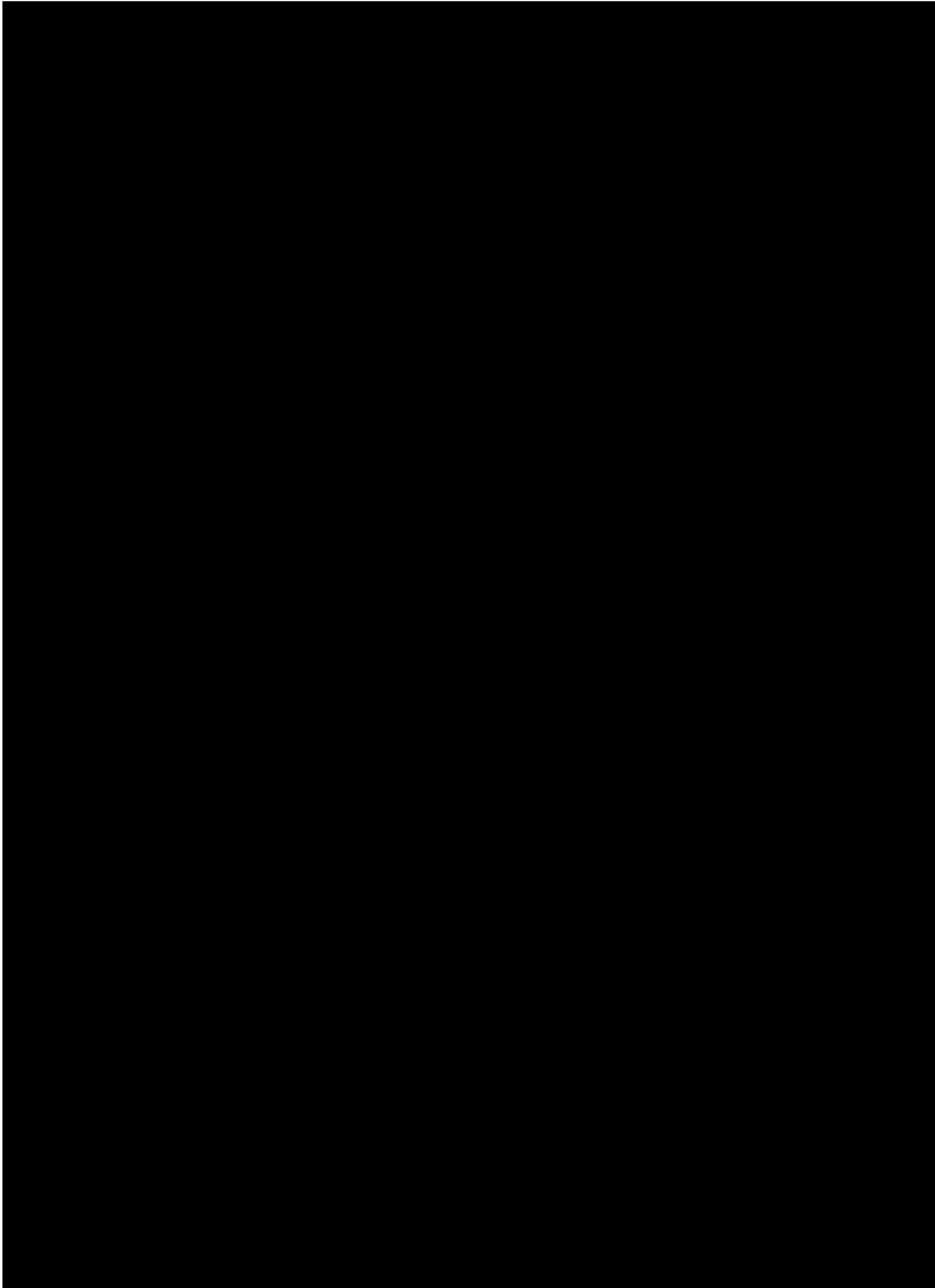


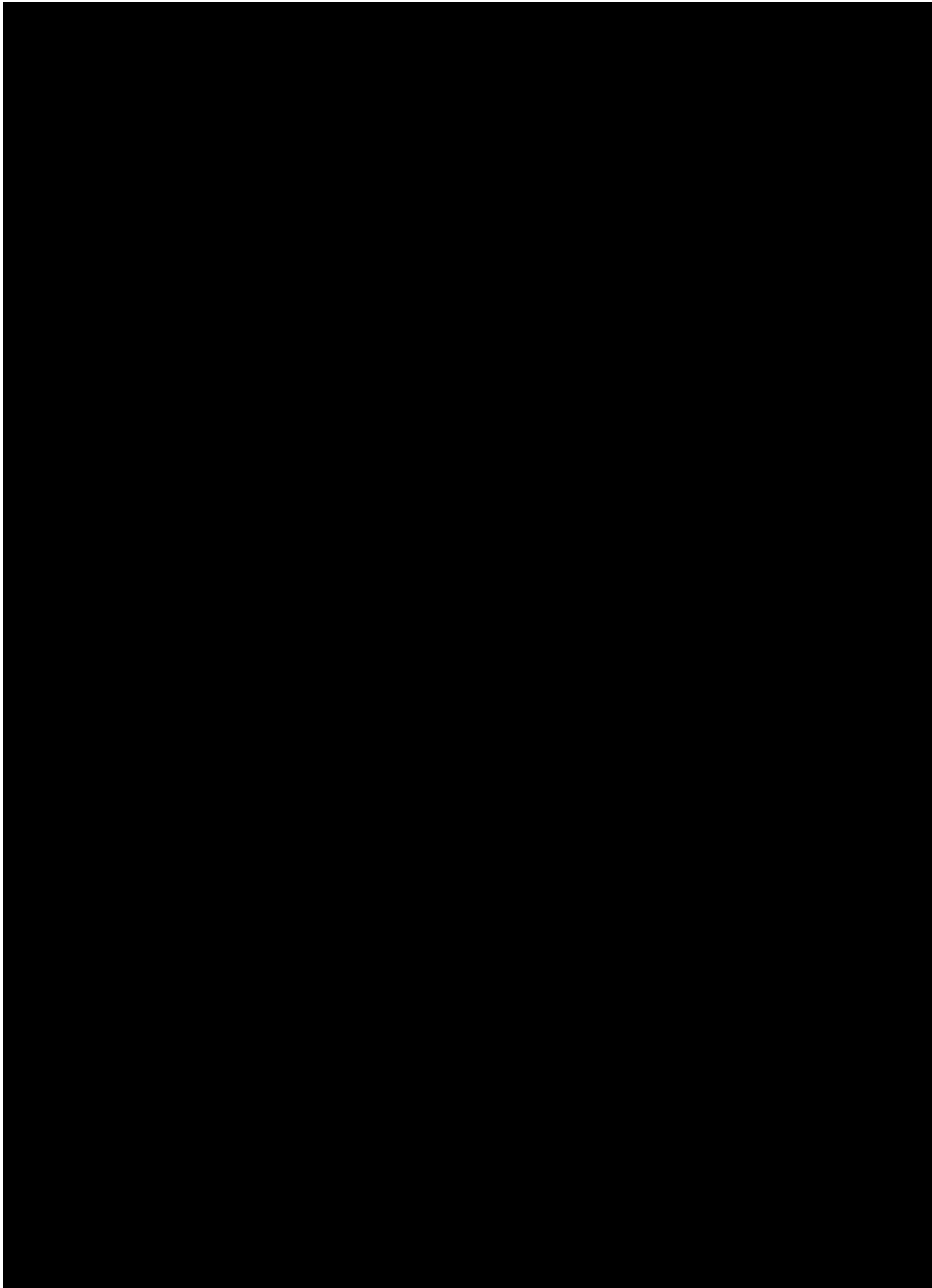


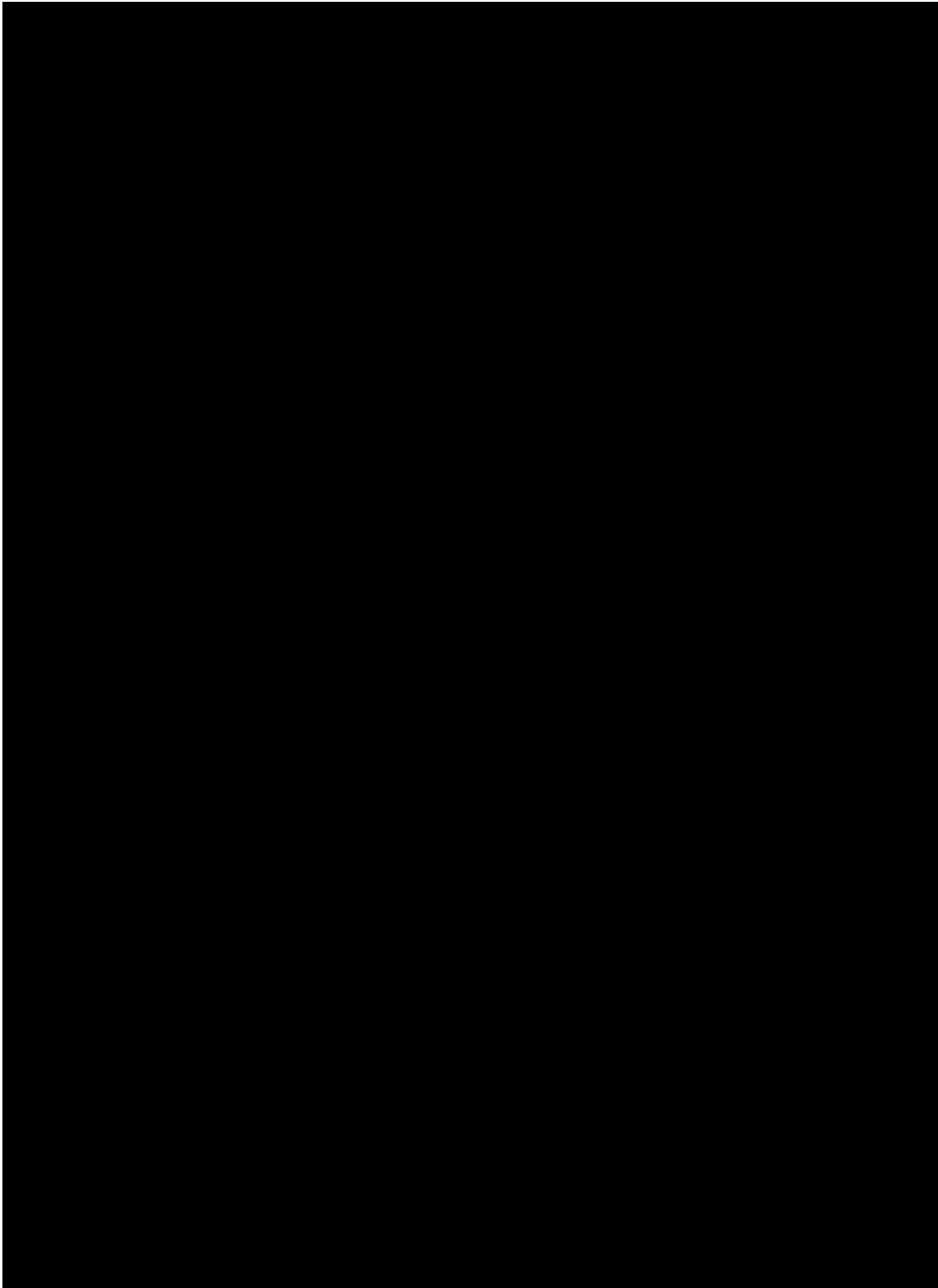












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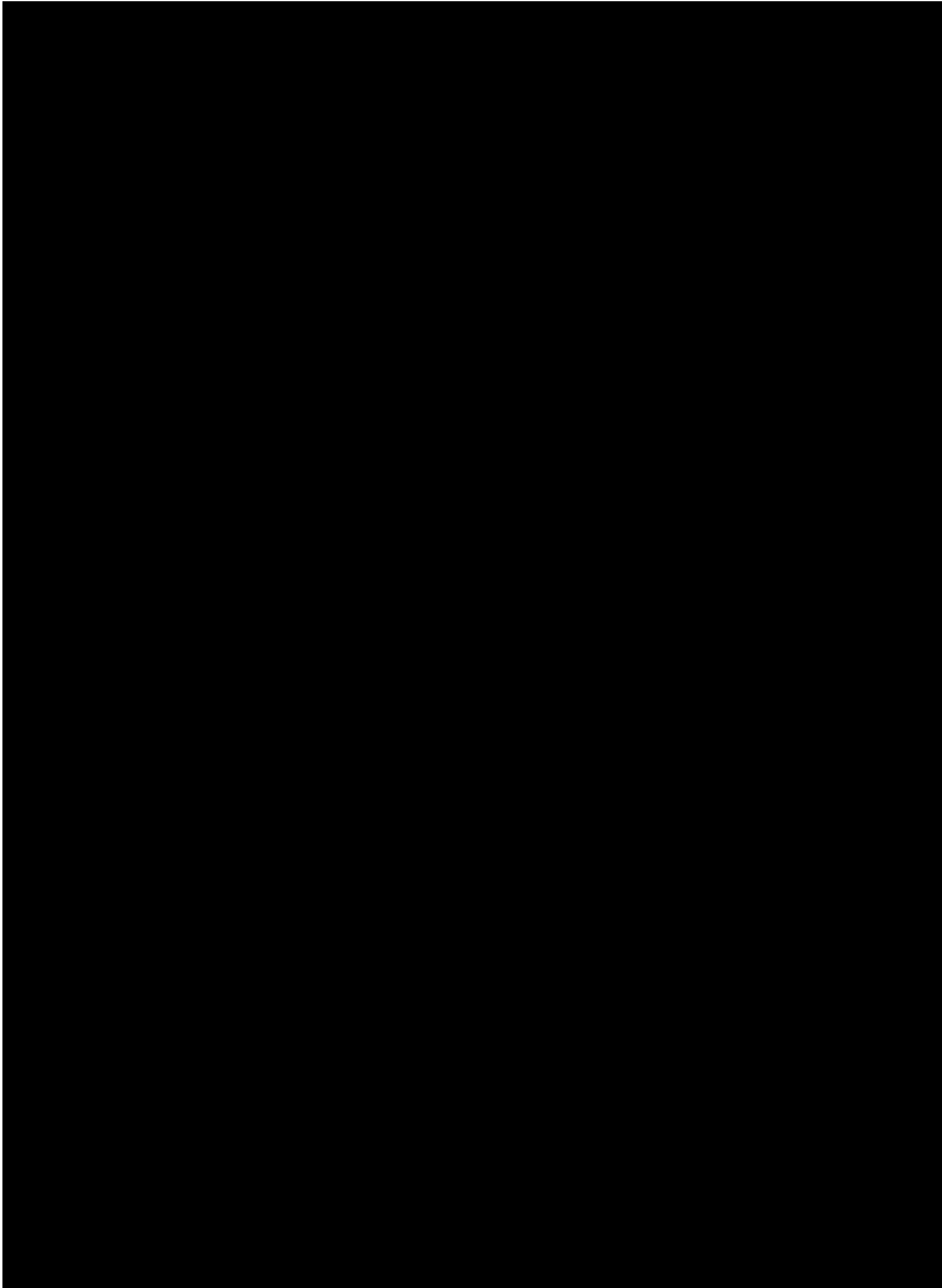
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

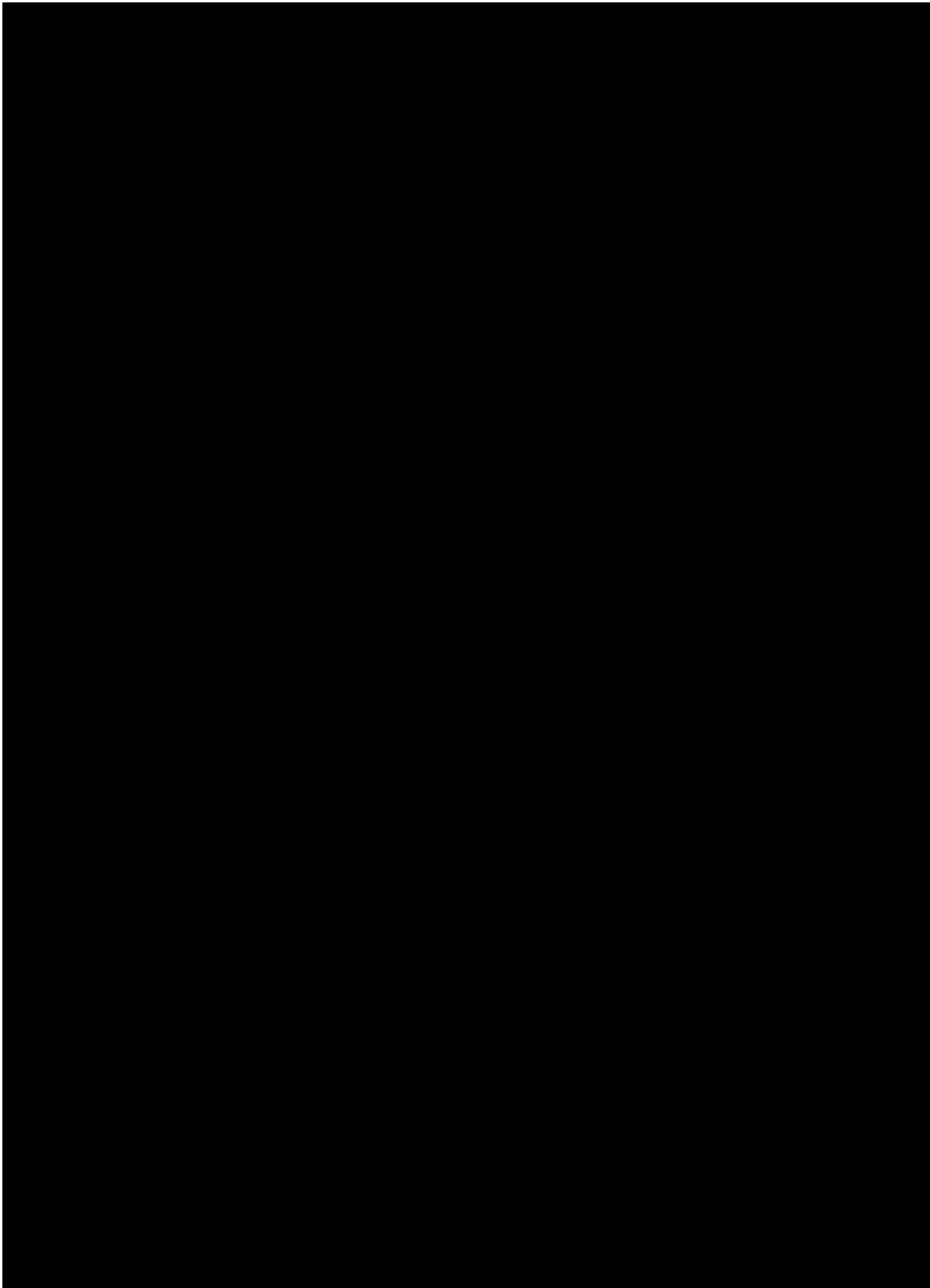
Respondents

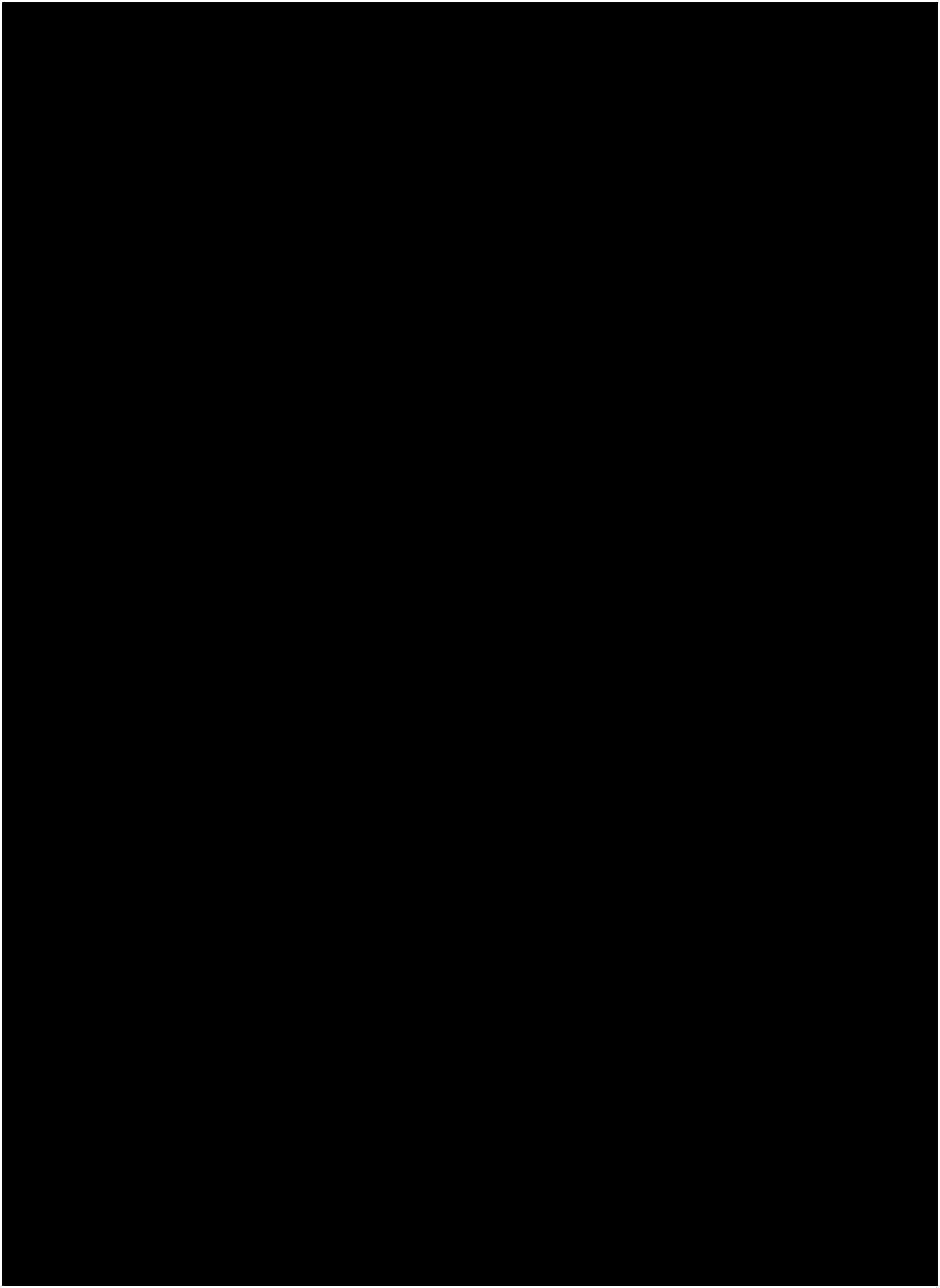
CONFIDENTIAL ANNEXURE AIB-46

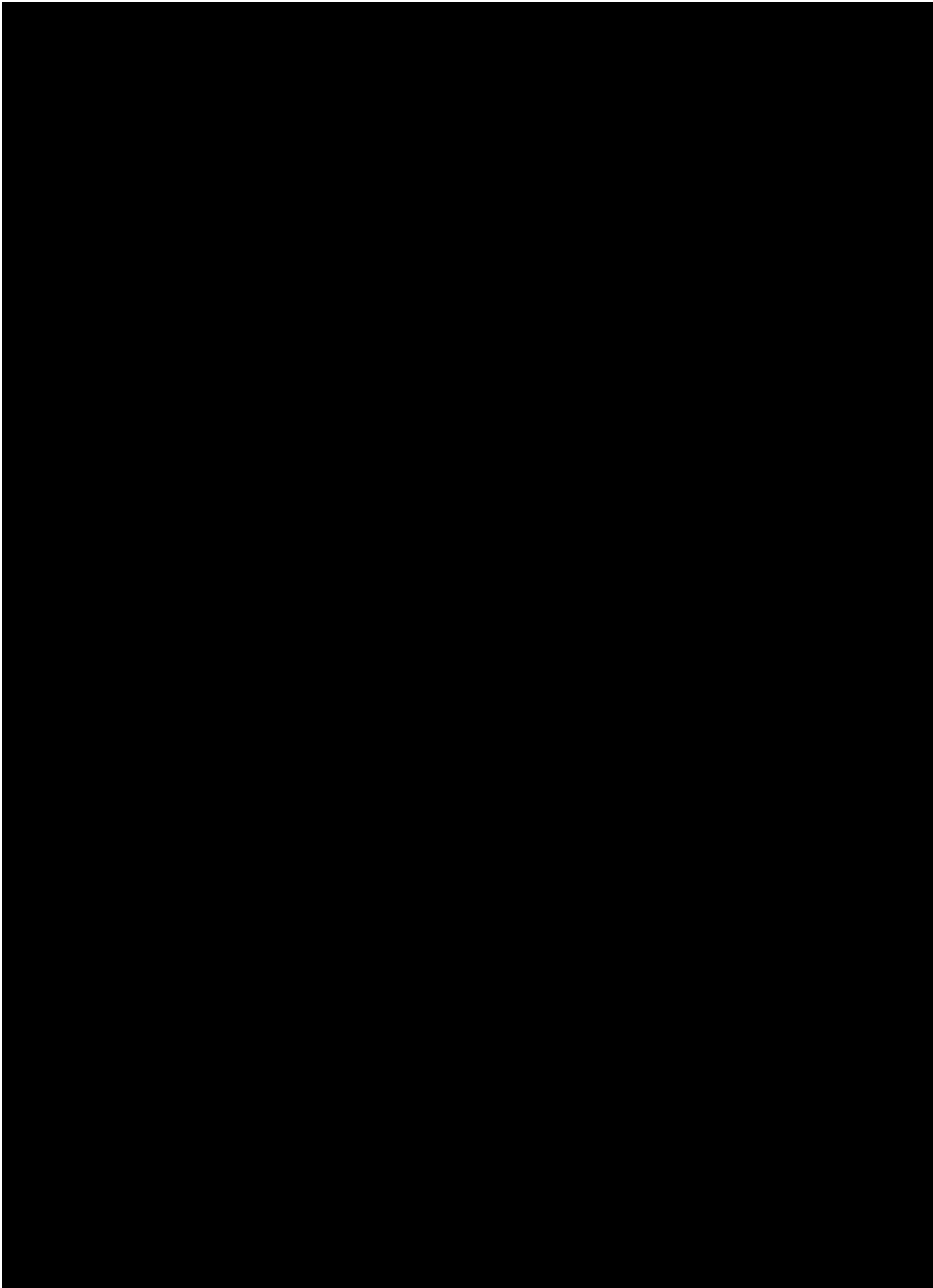
This is the confidential annexure marked **AIB-46** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

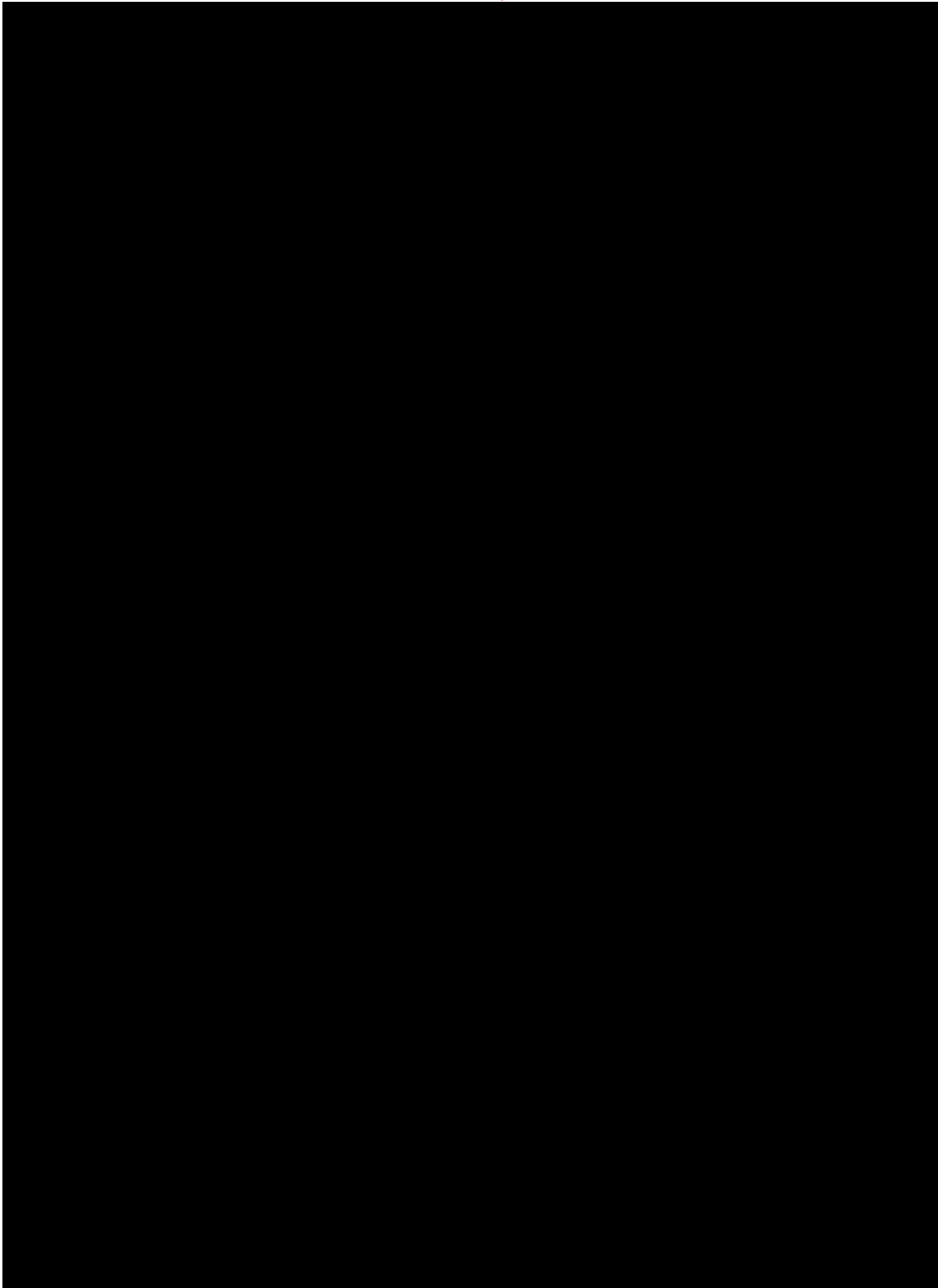
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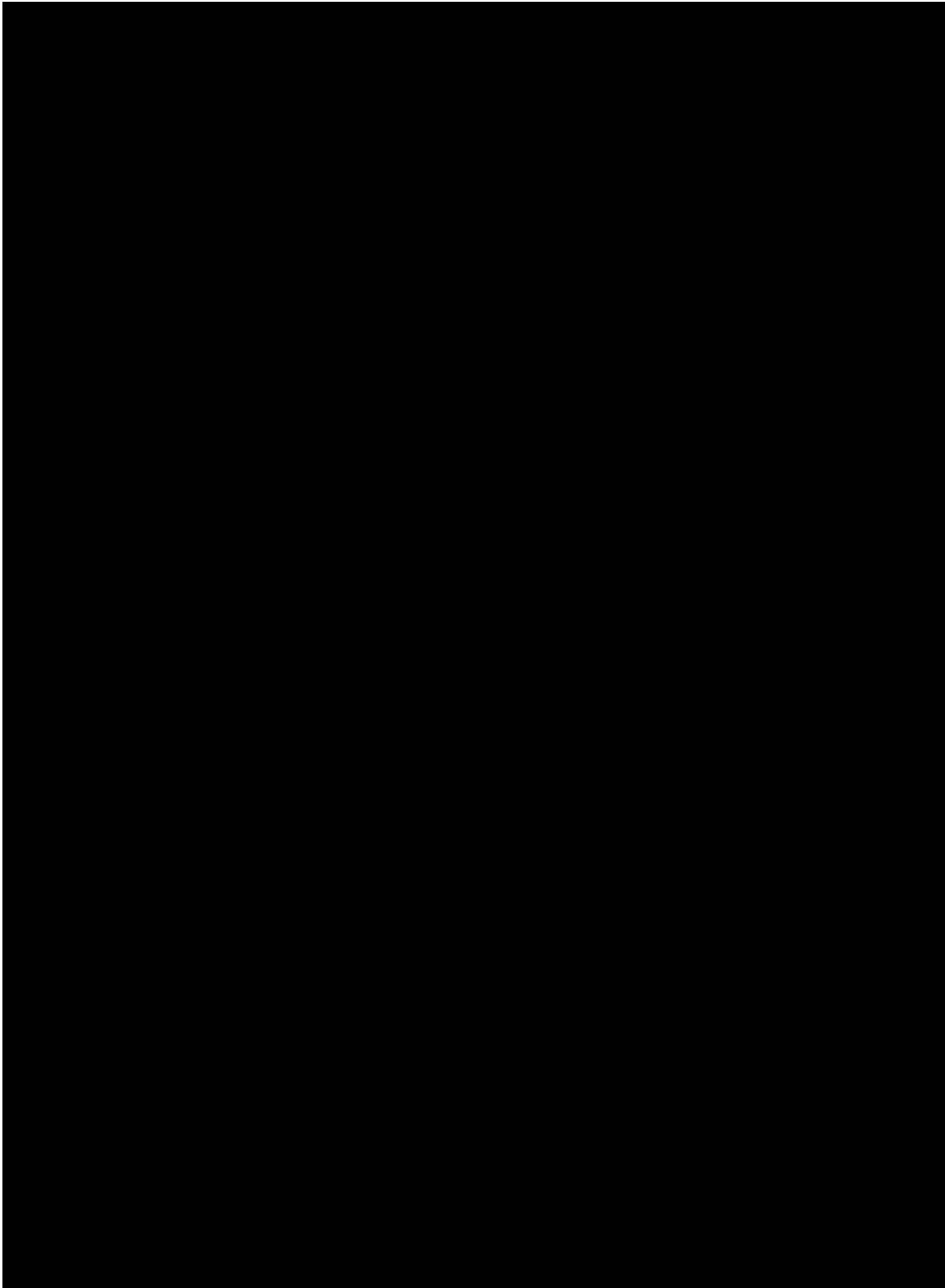


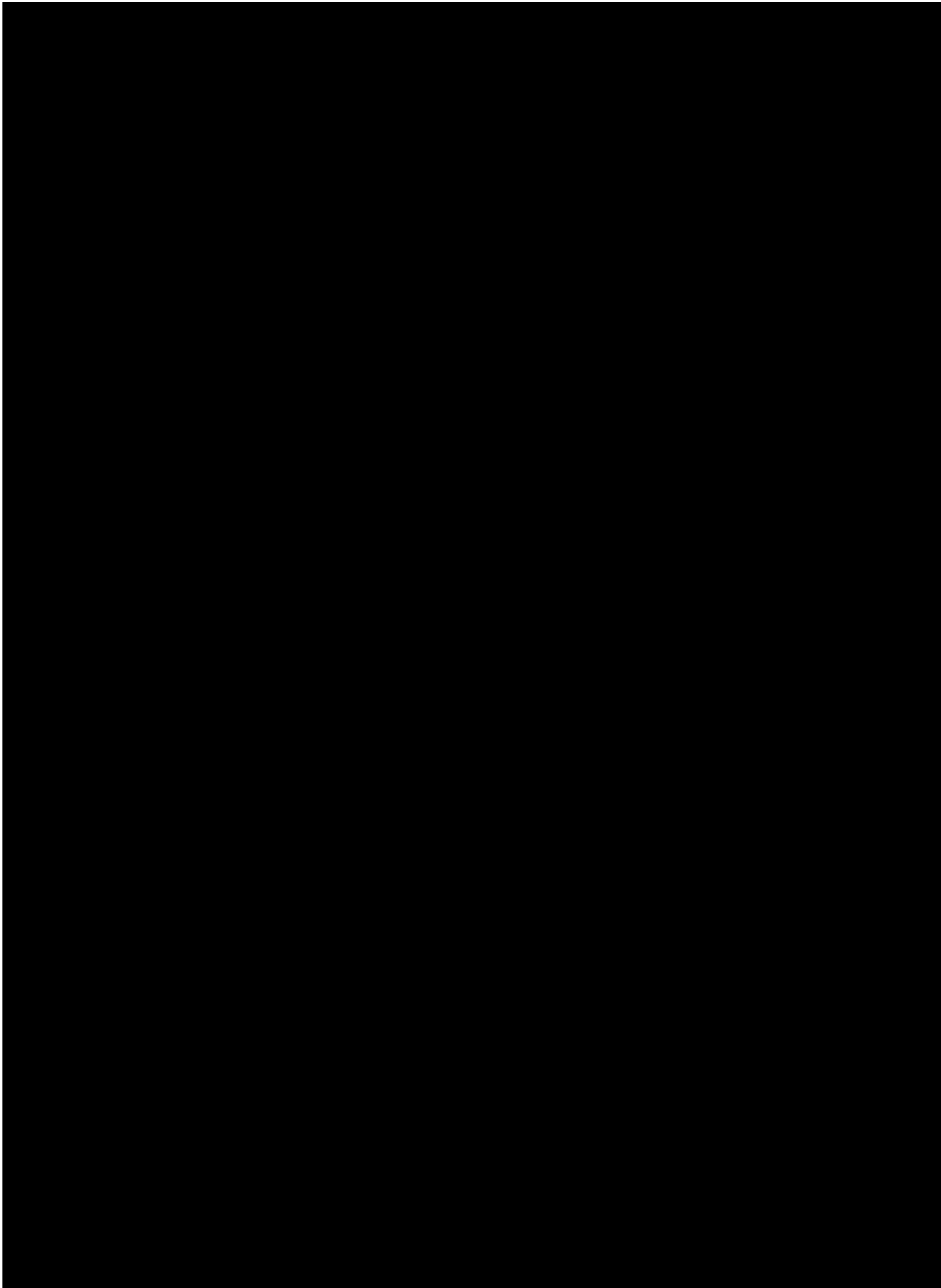


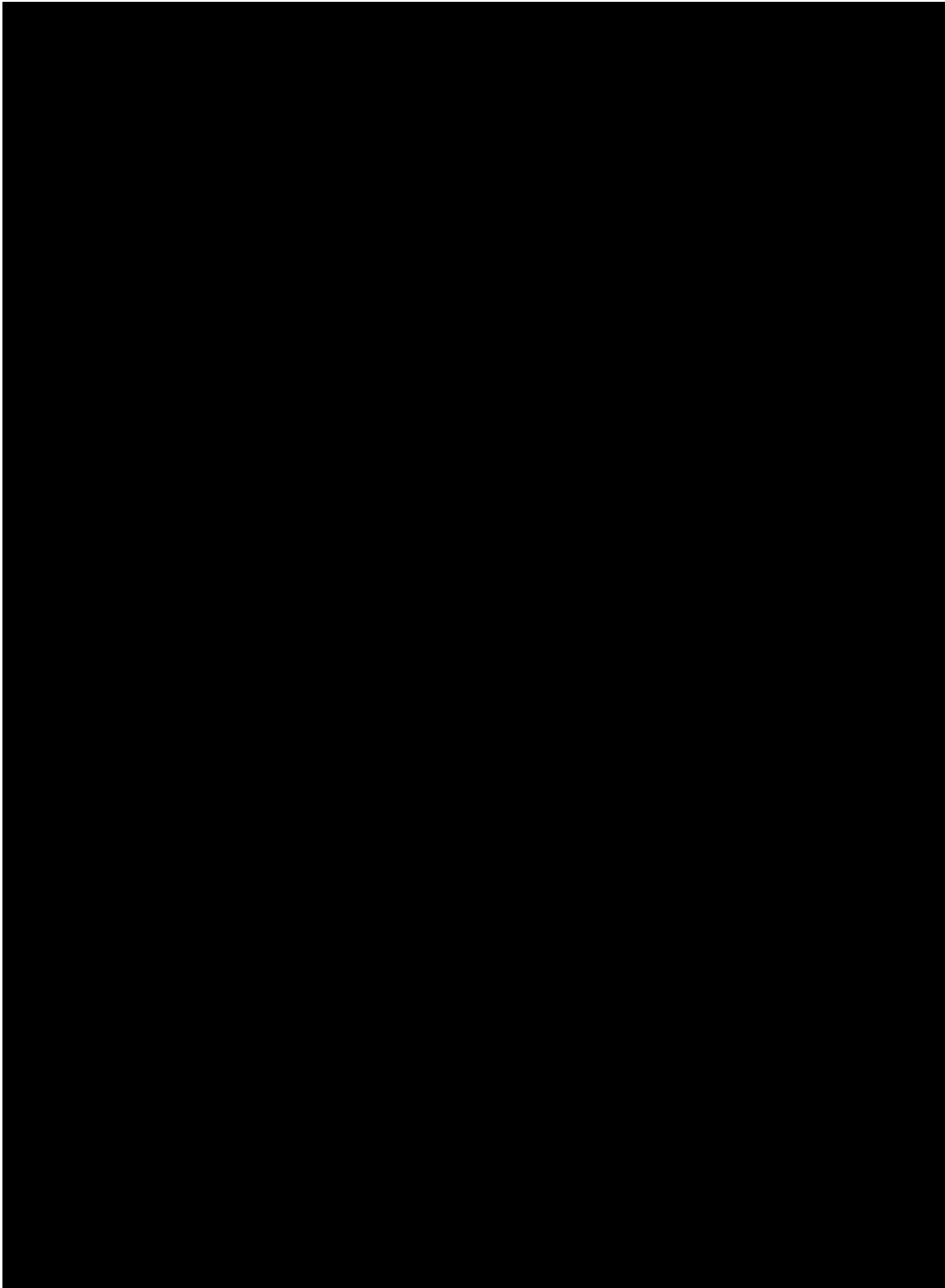


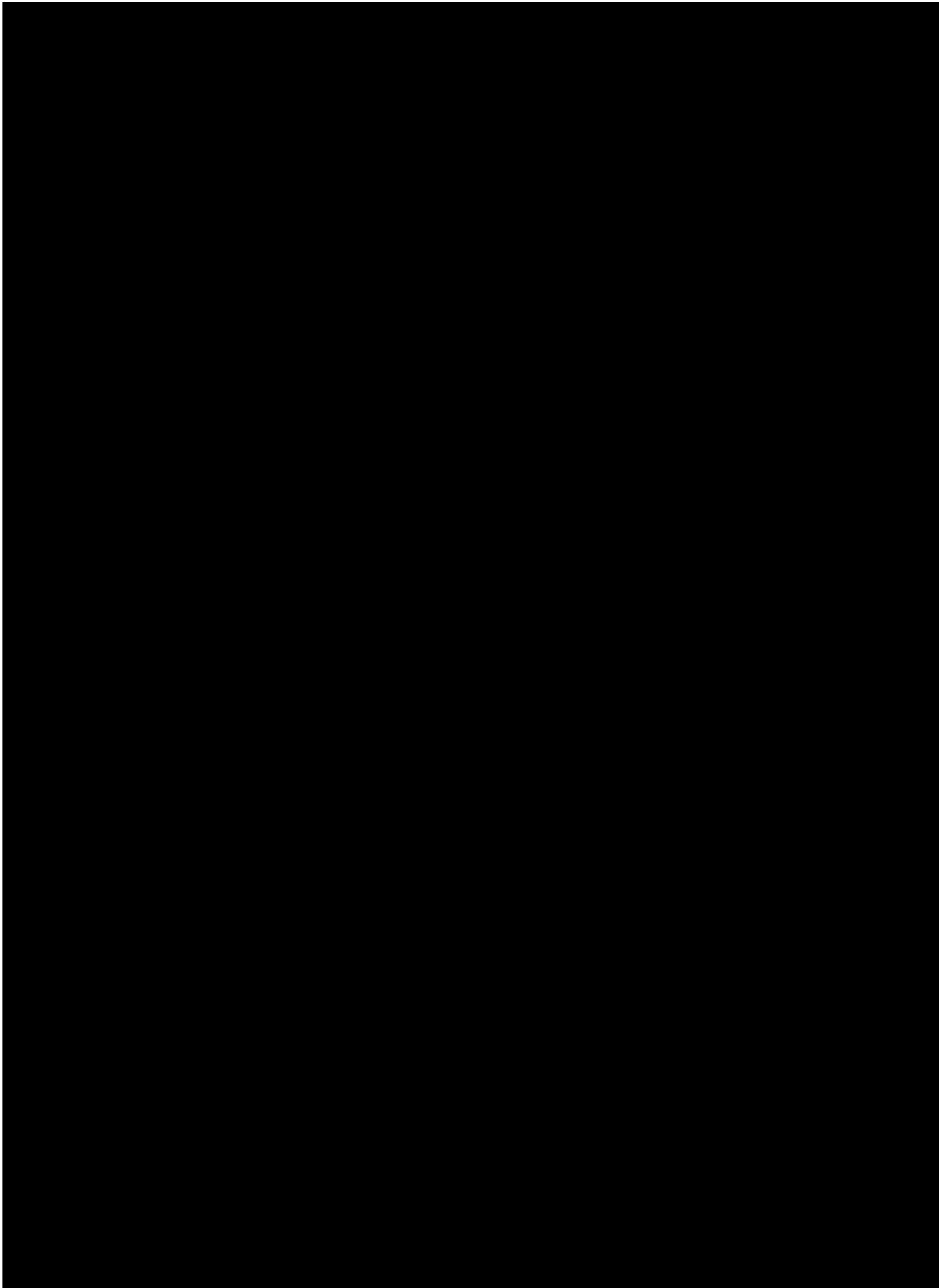


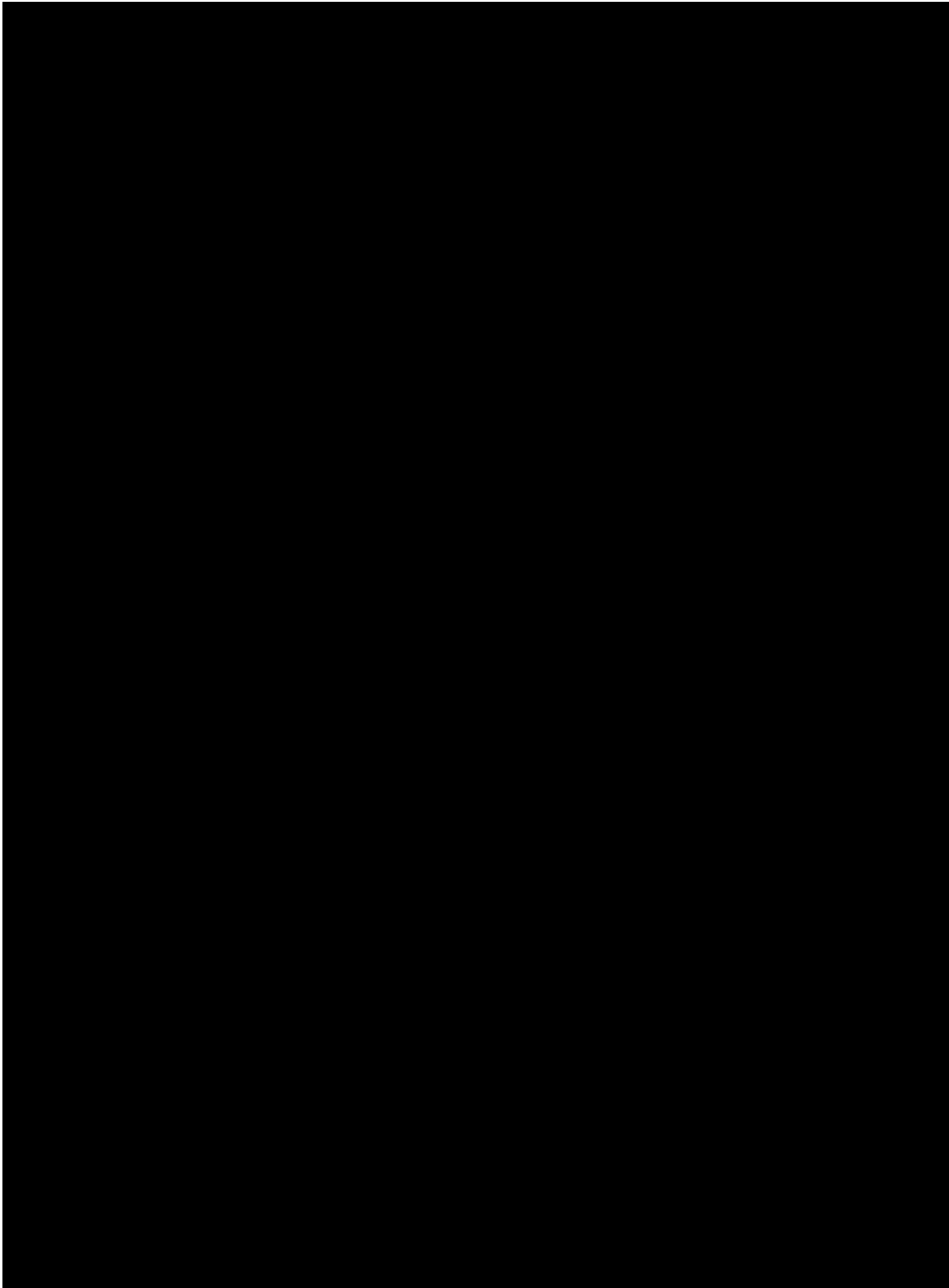


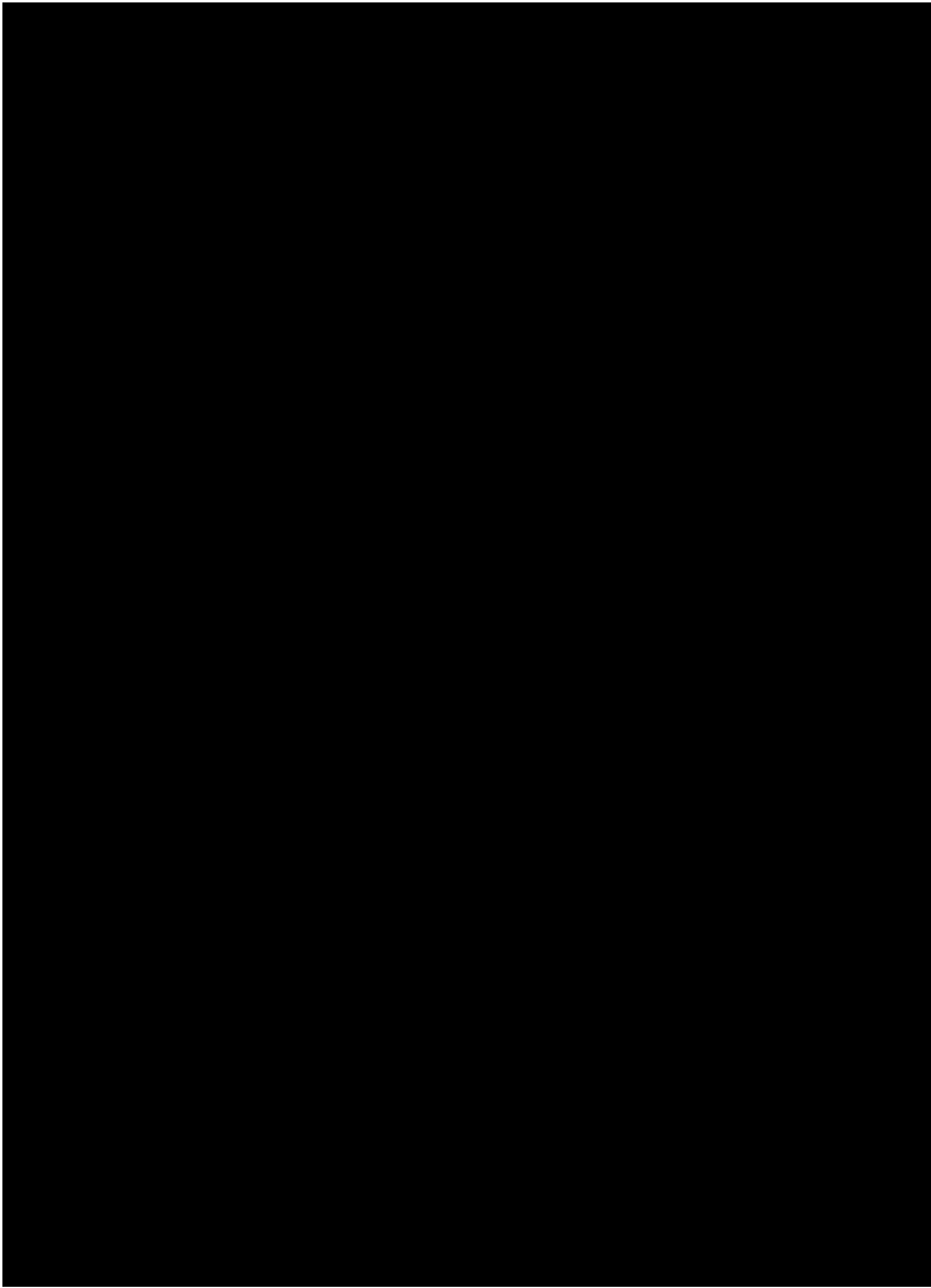


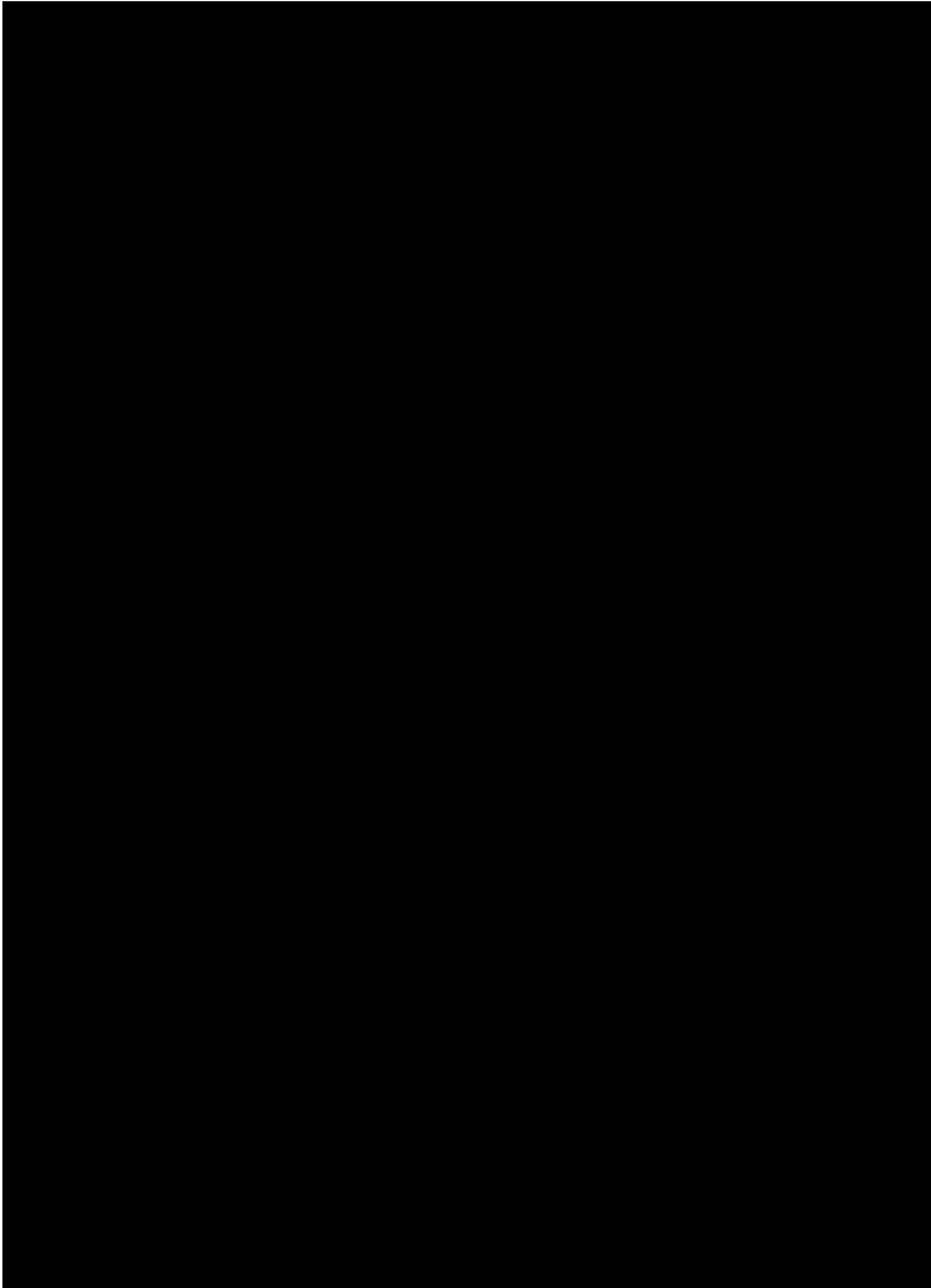


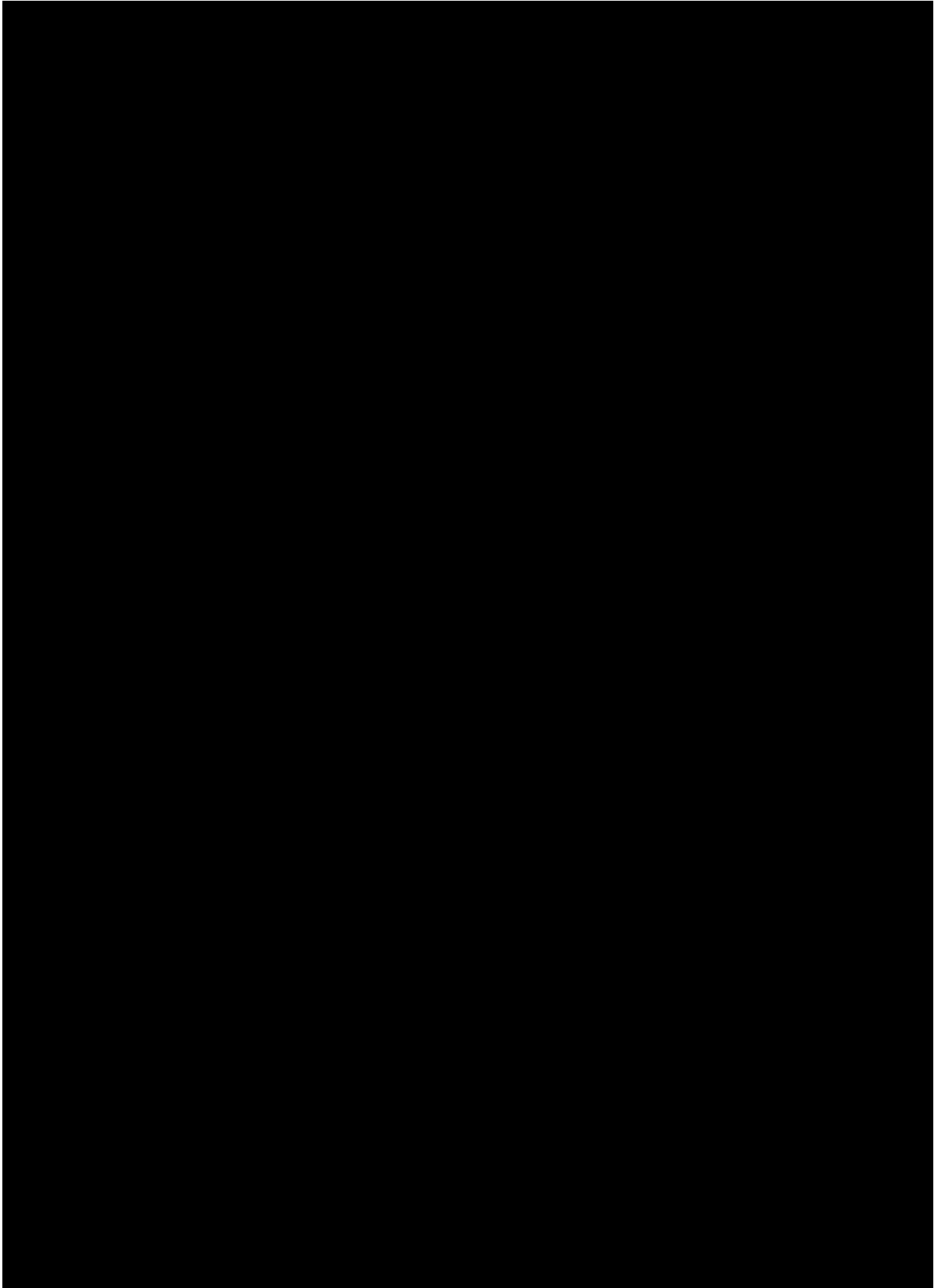


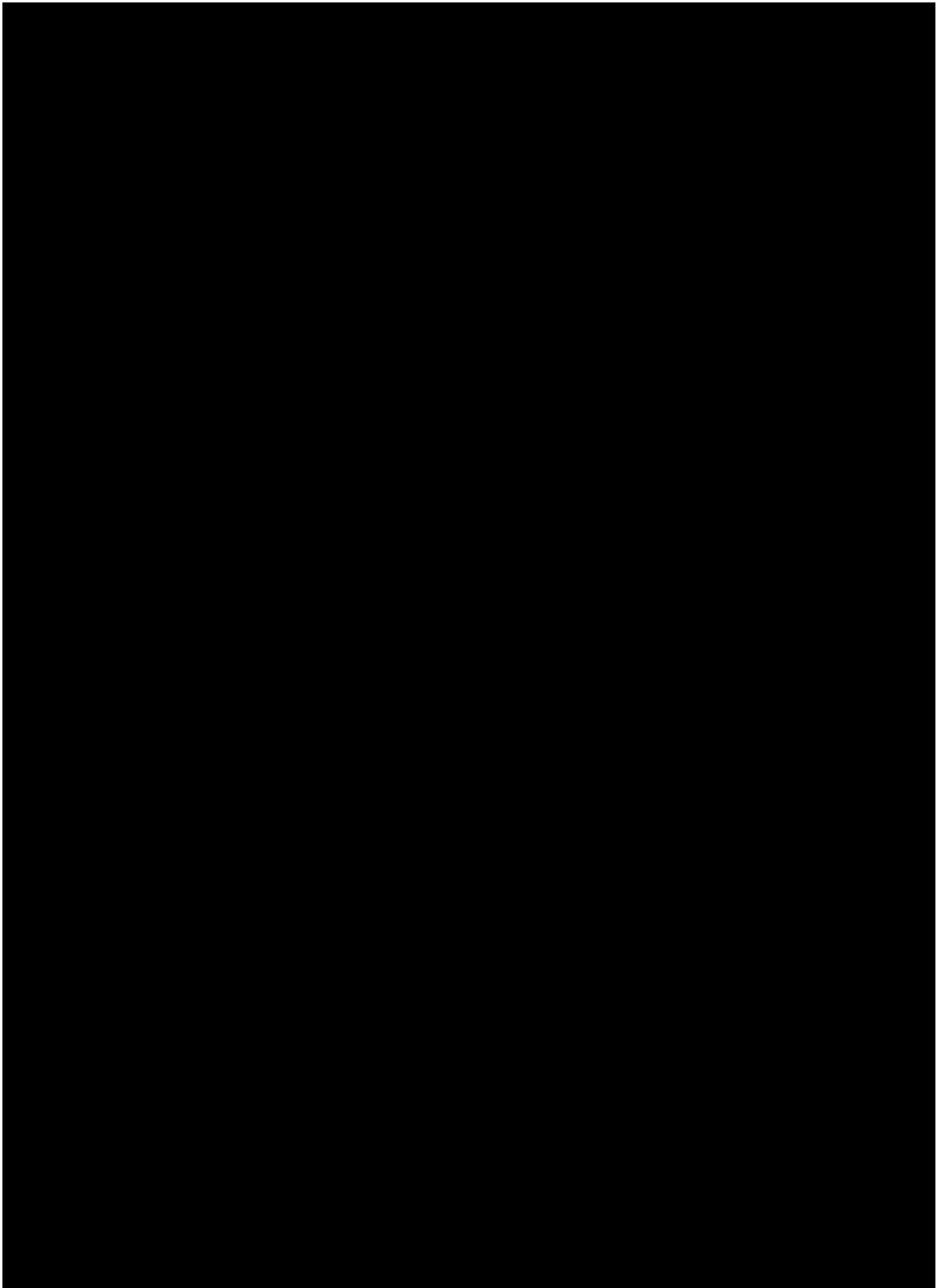


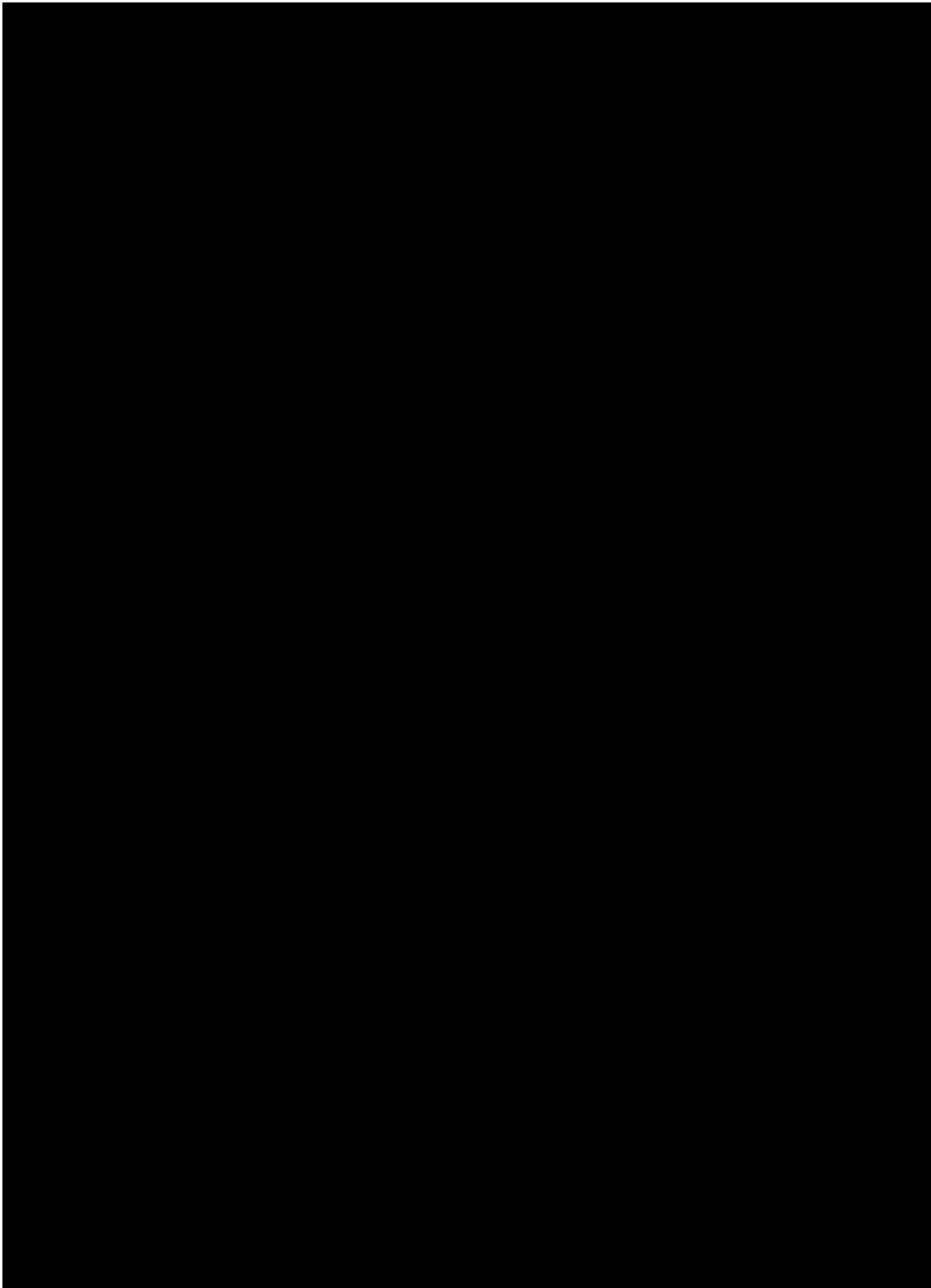


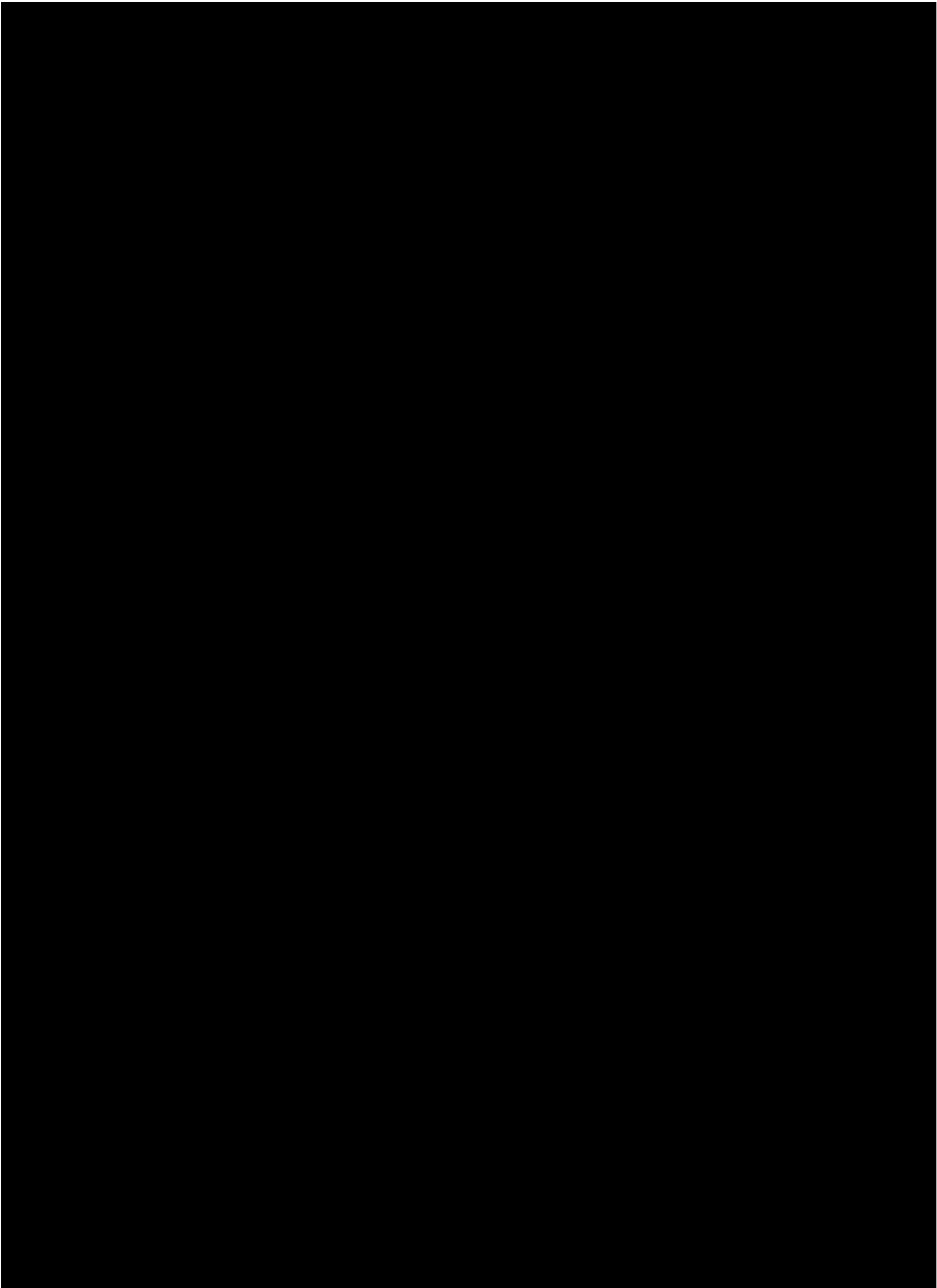


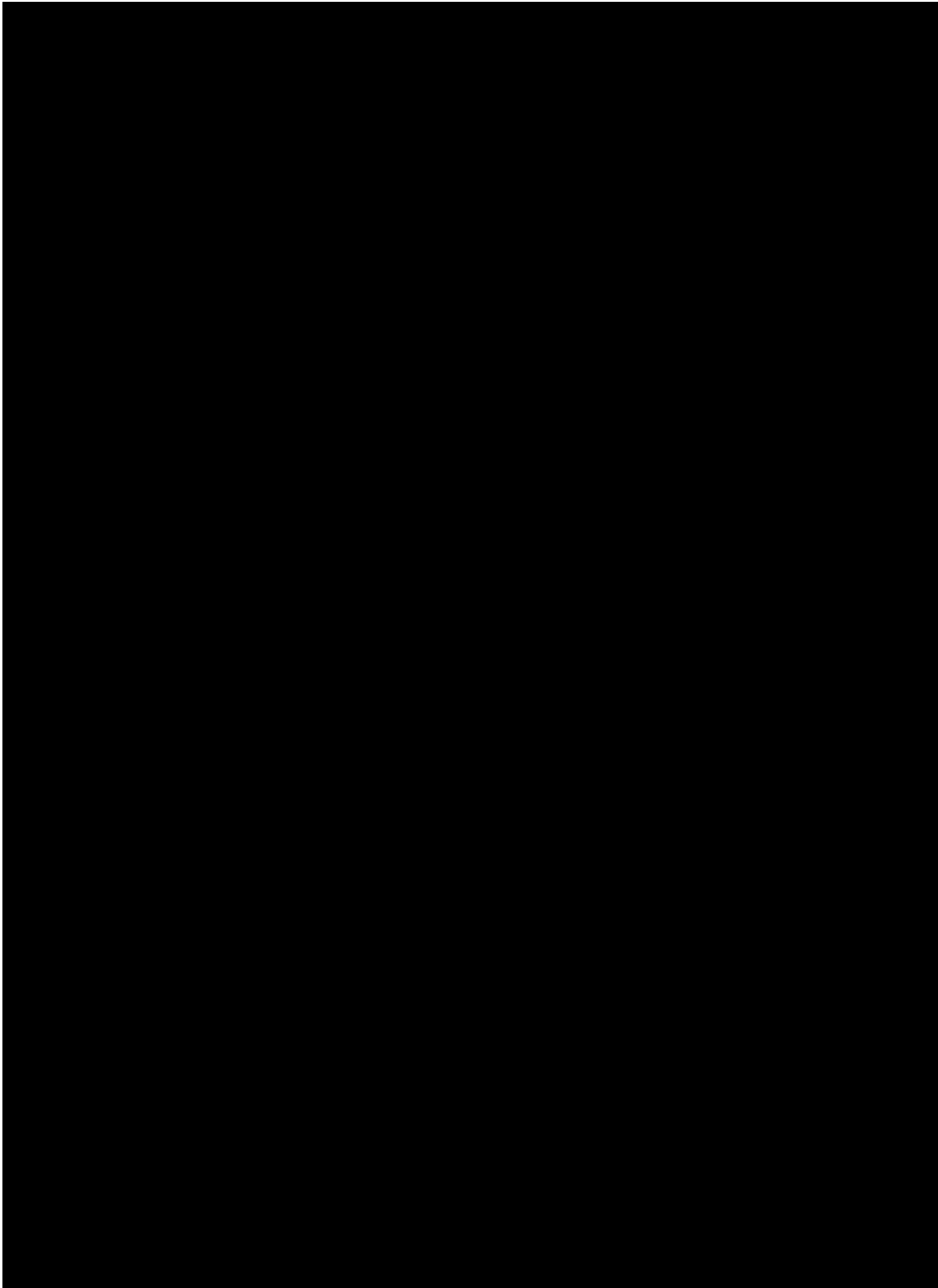


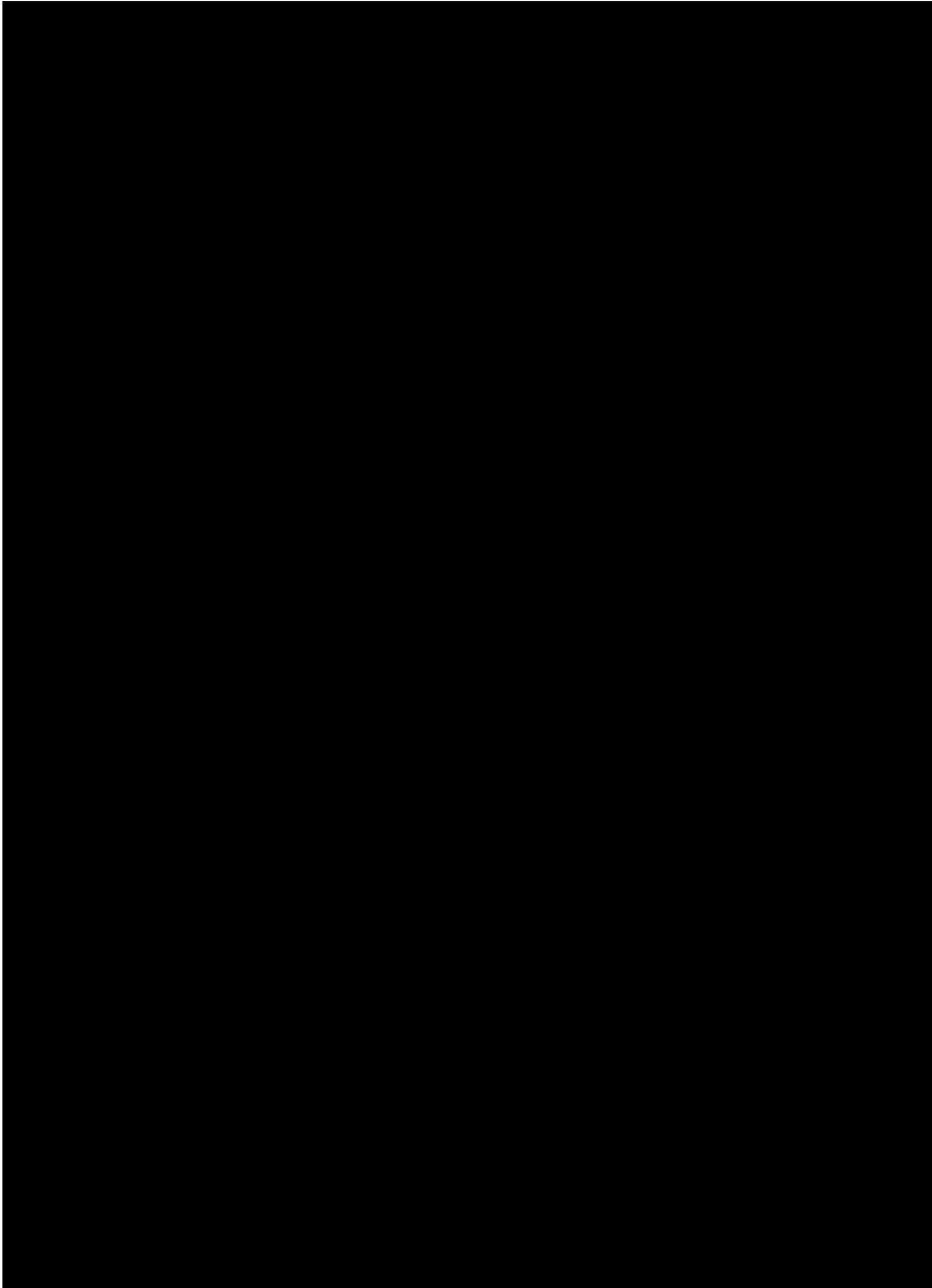


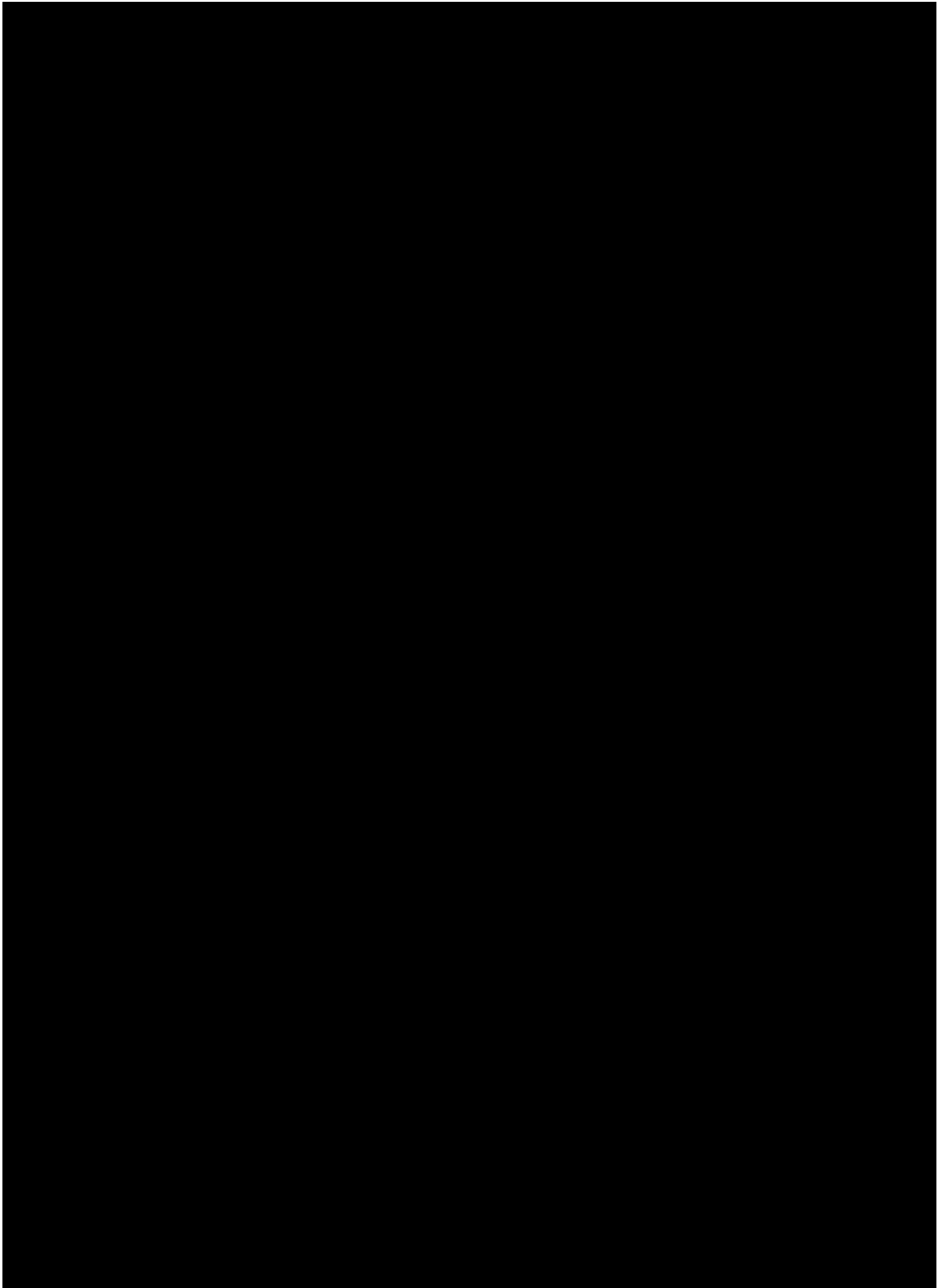


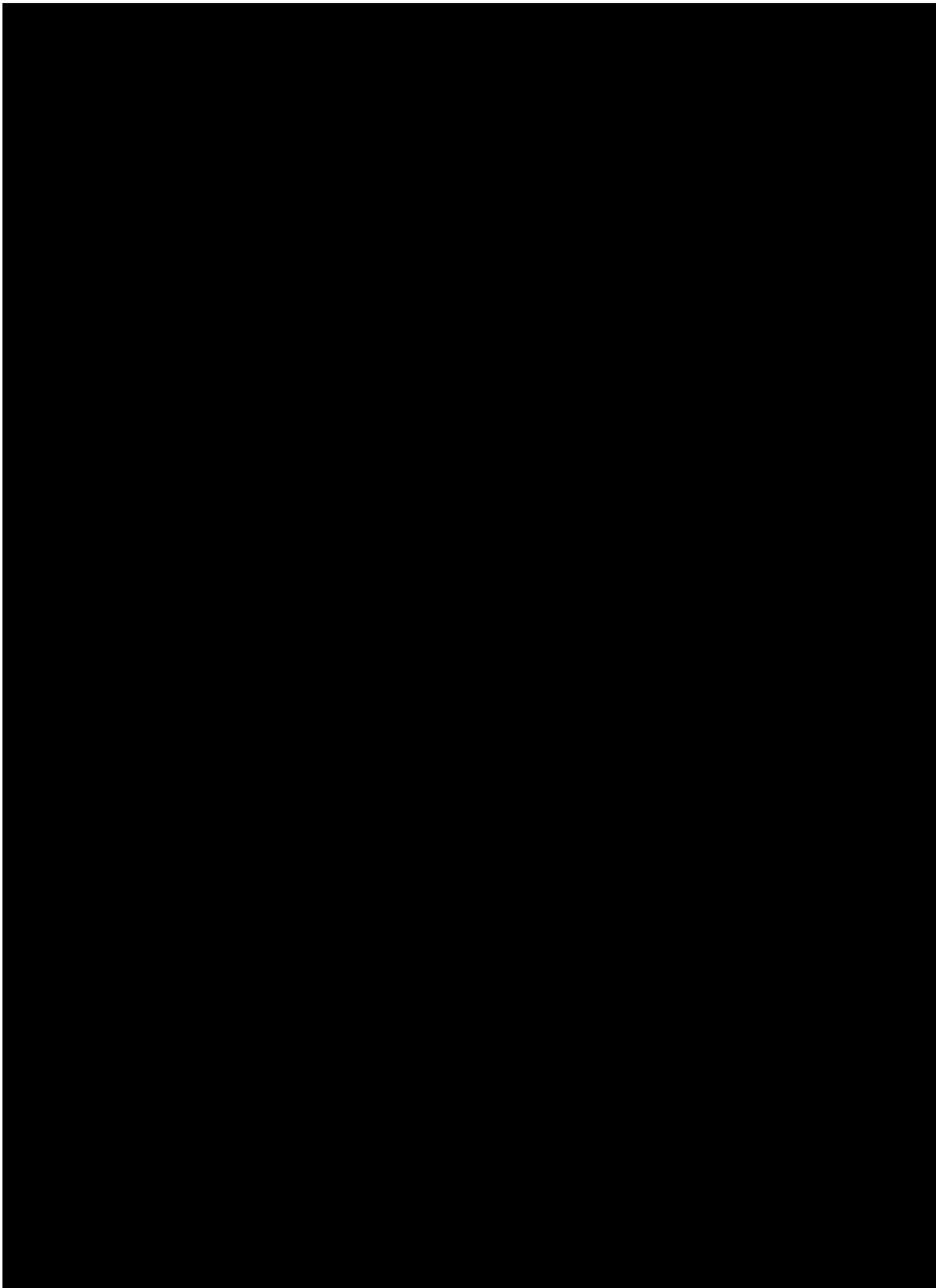


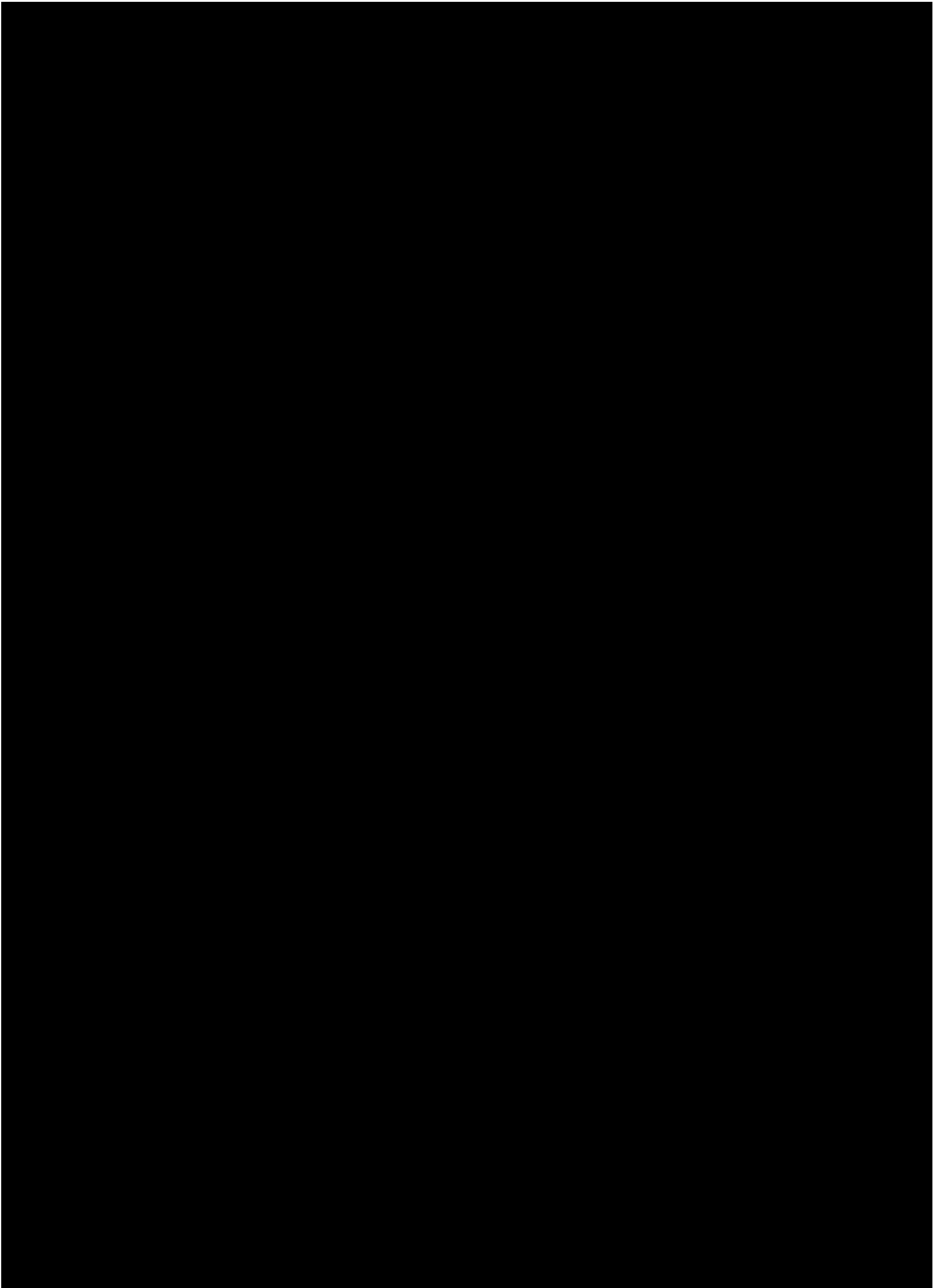


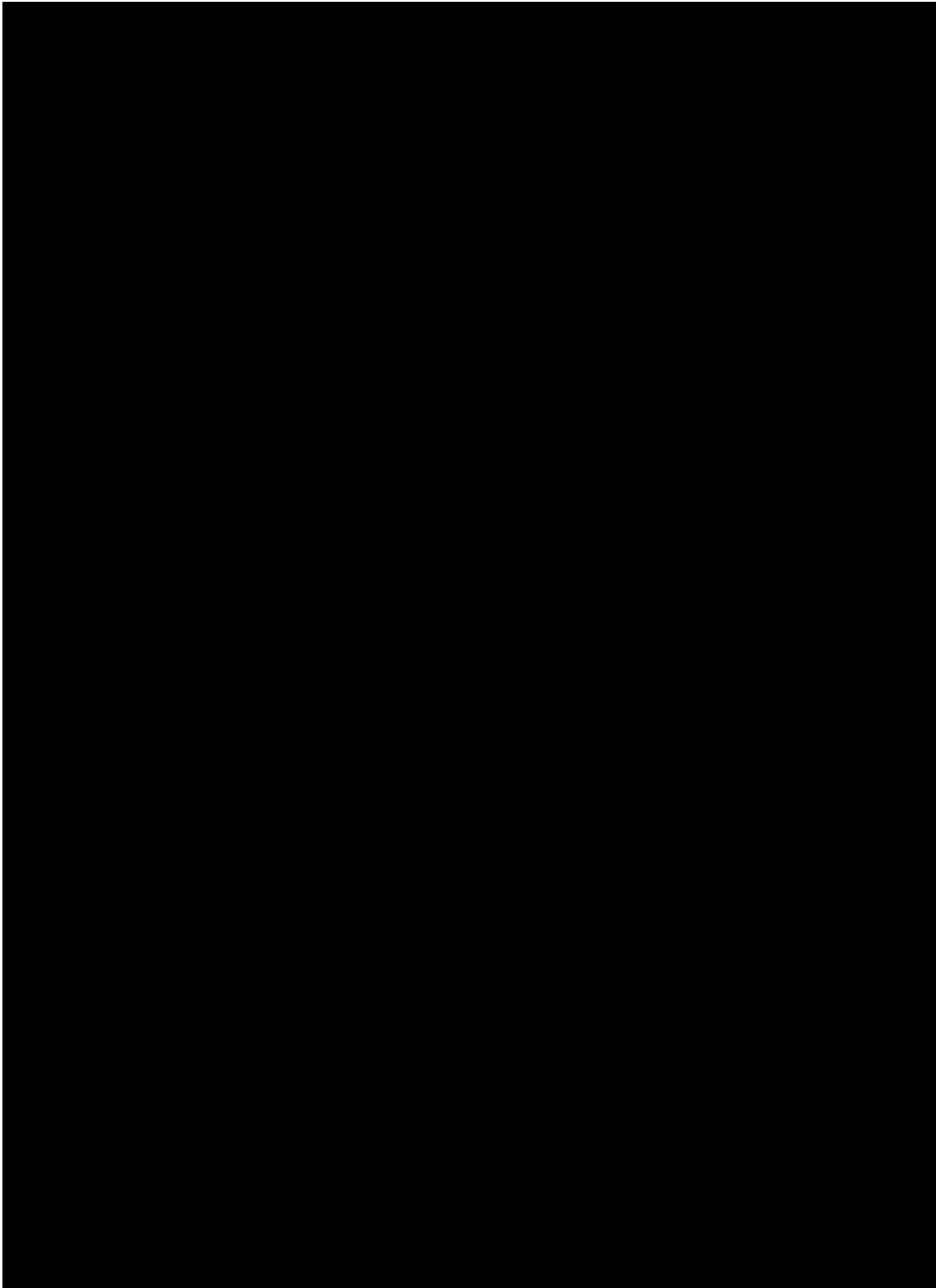


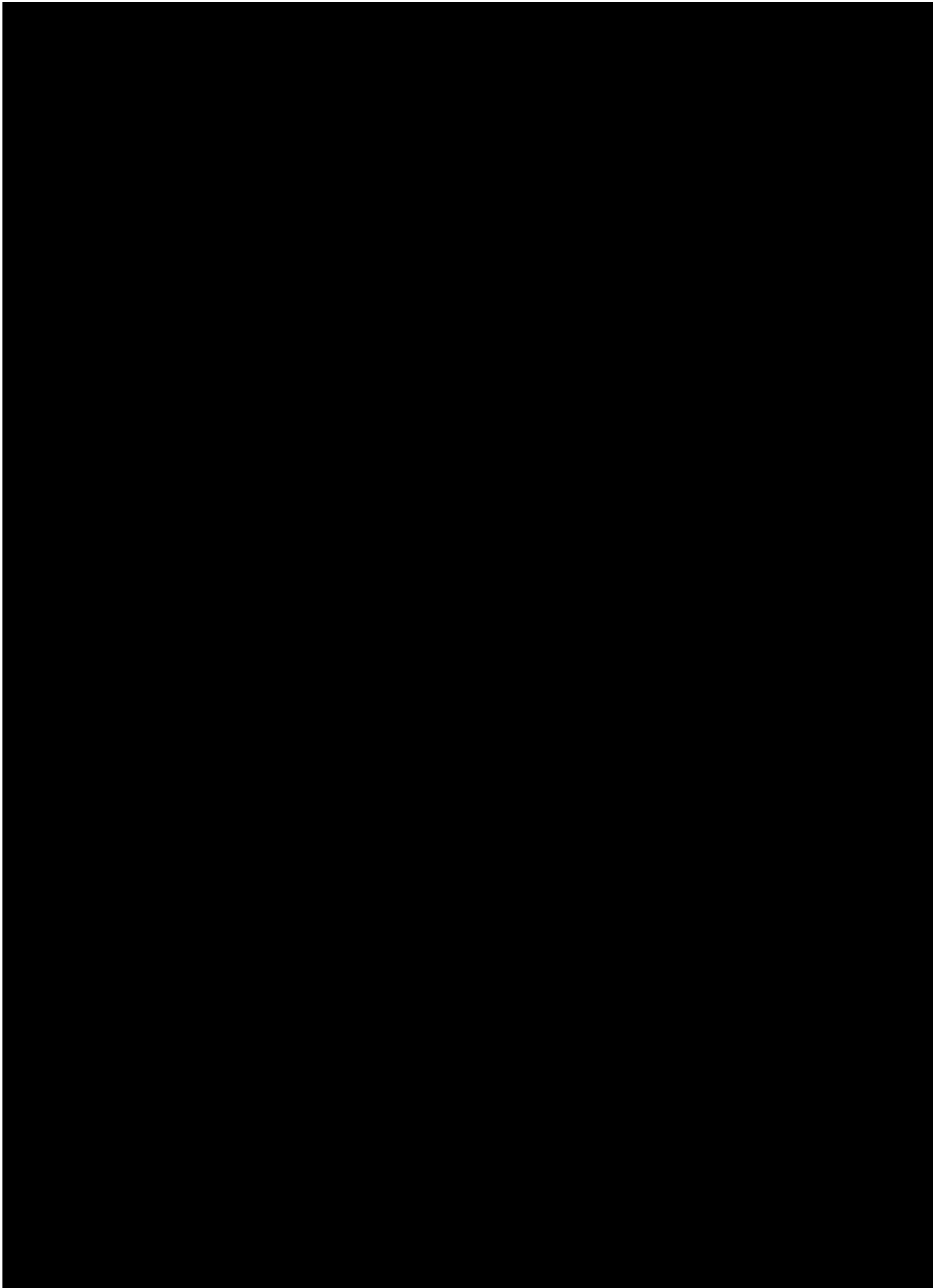


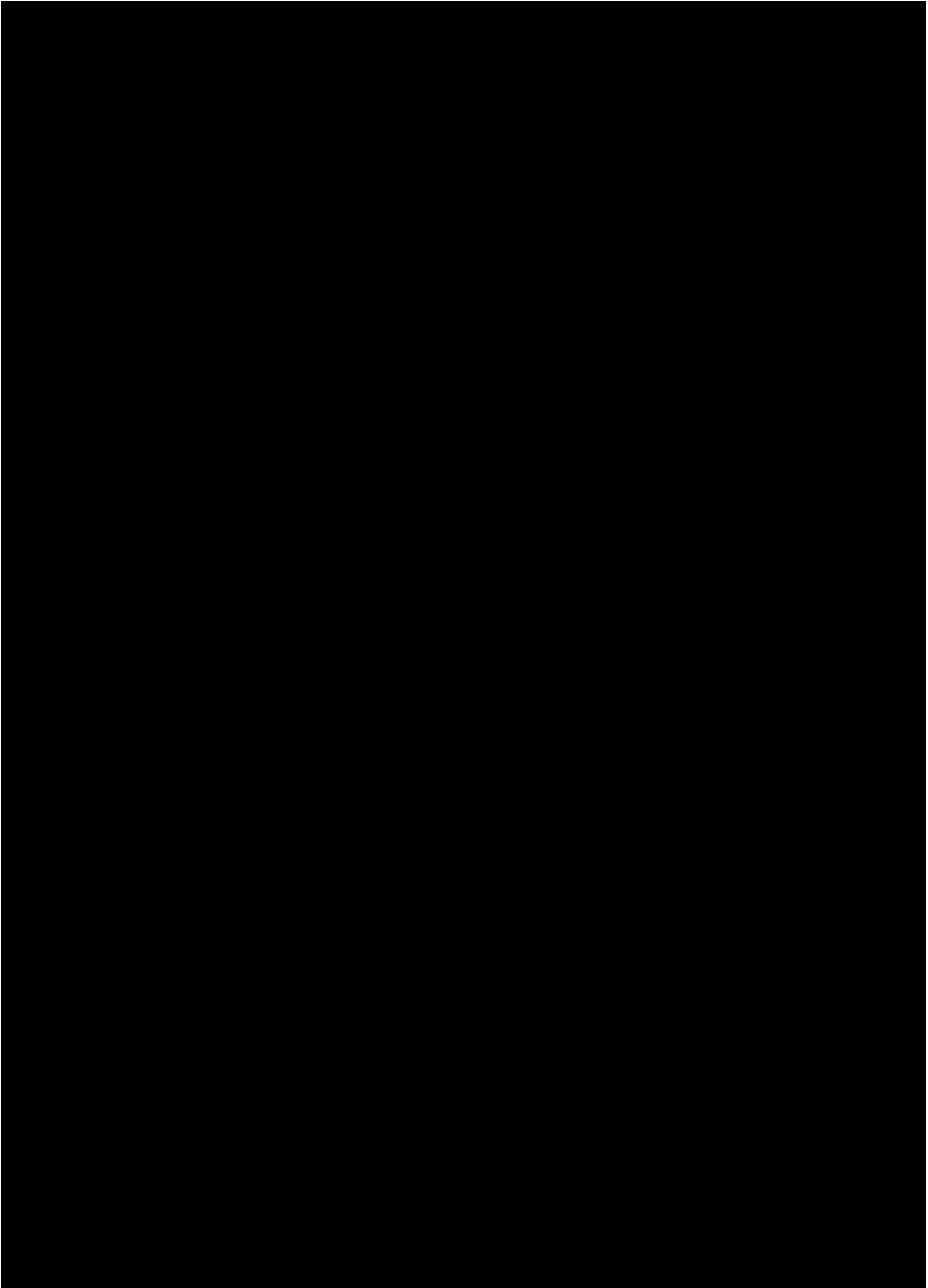


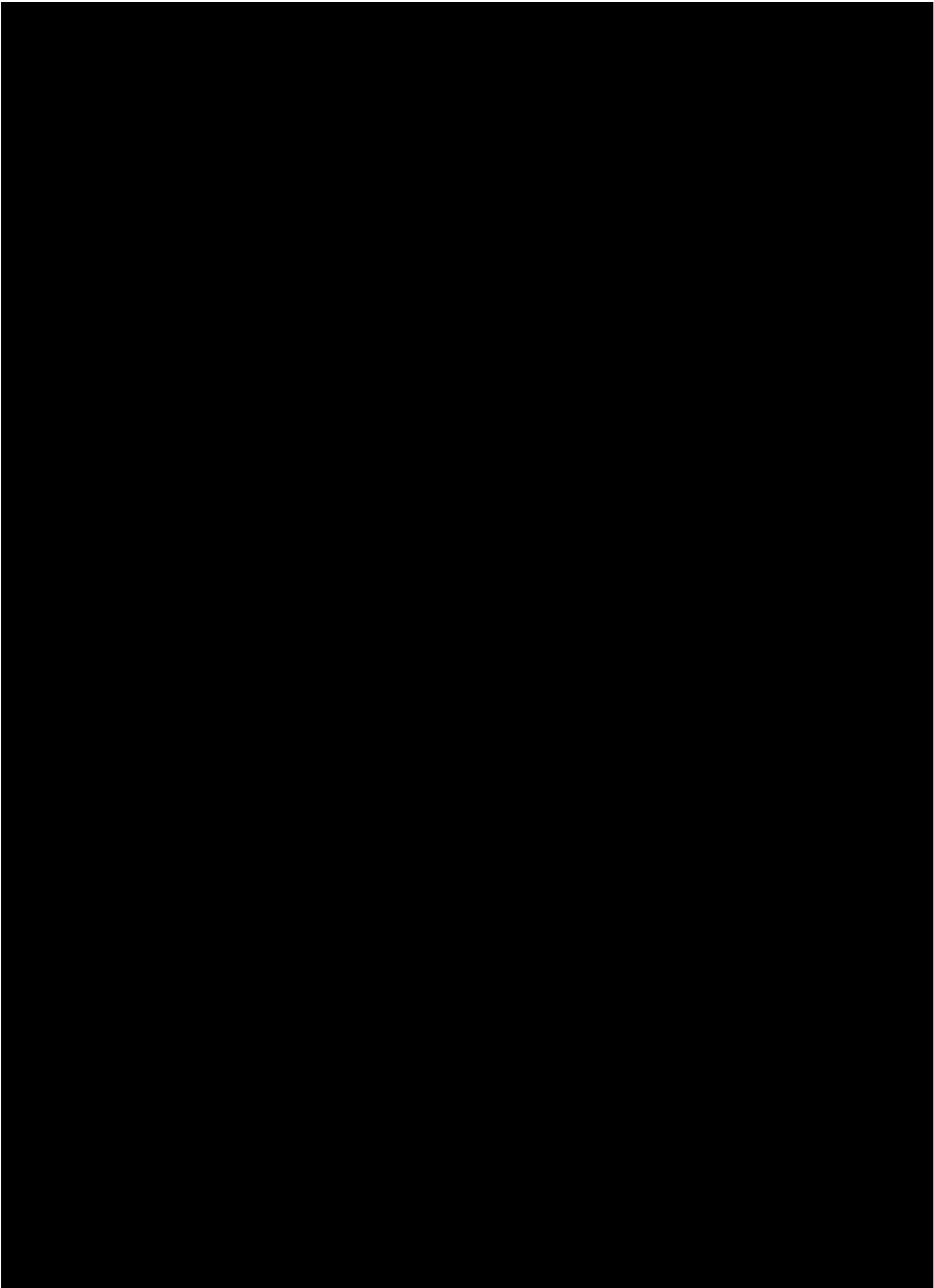












No. NSD527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

FORTESCUE LIMITED (ACN 002 594 872) and others

Applicants

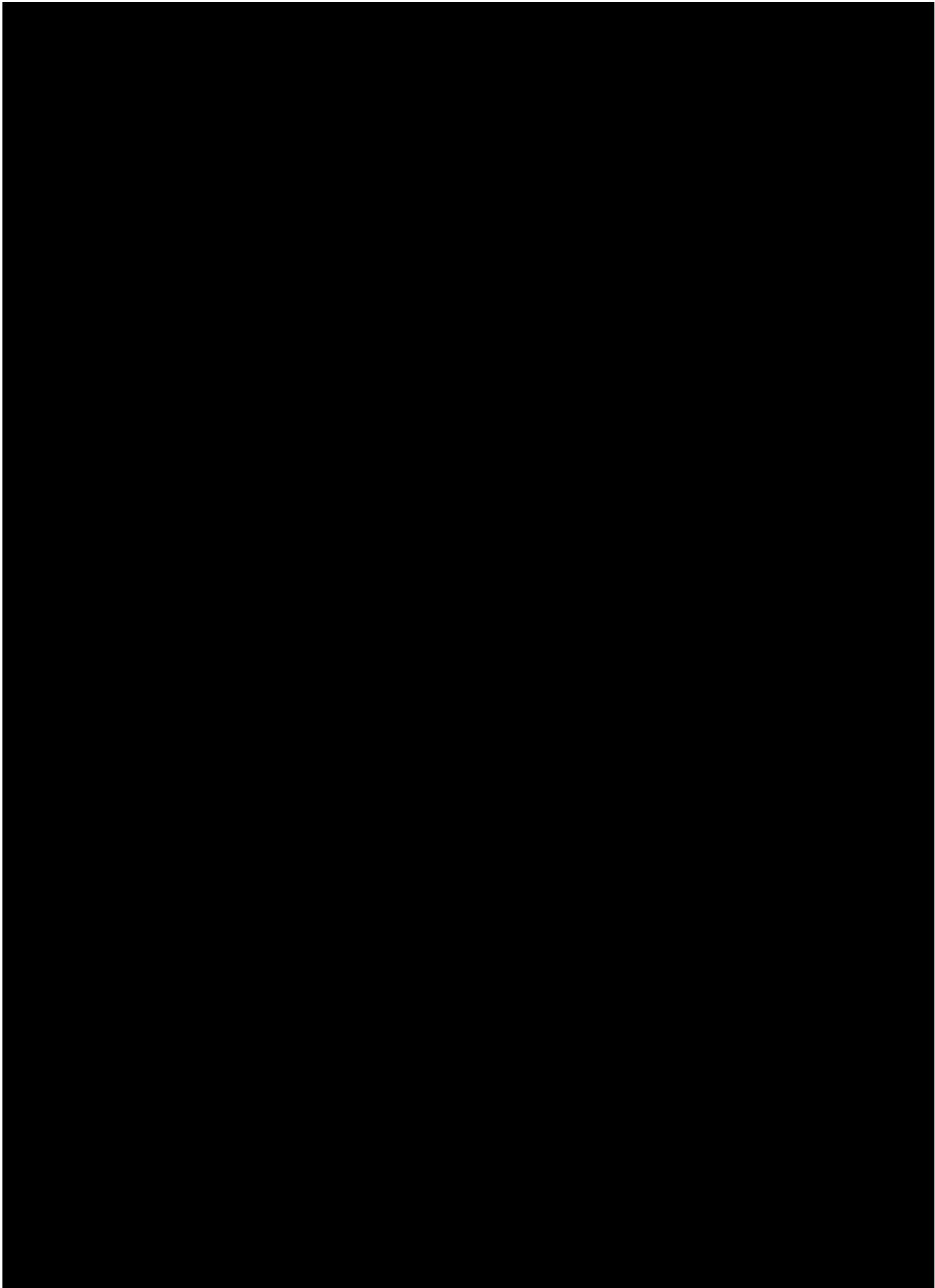
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

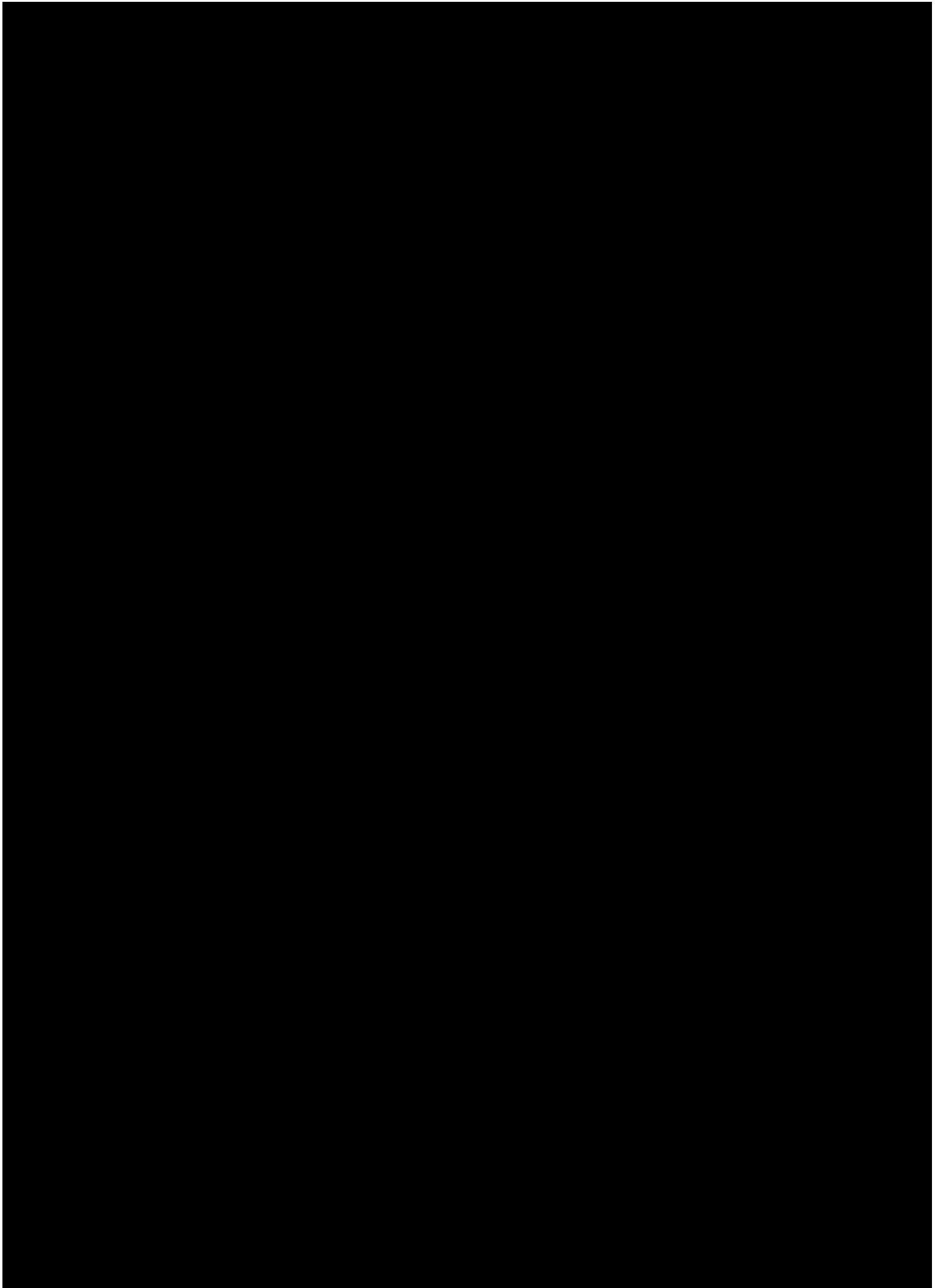
Respondents

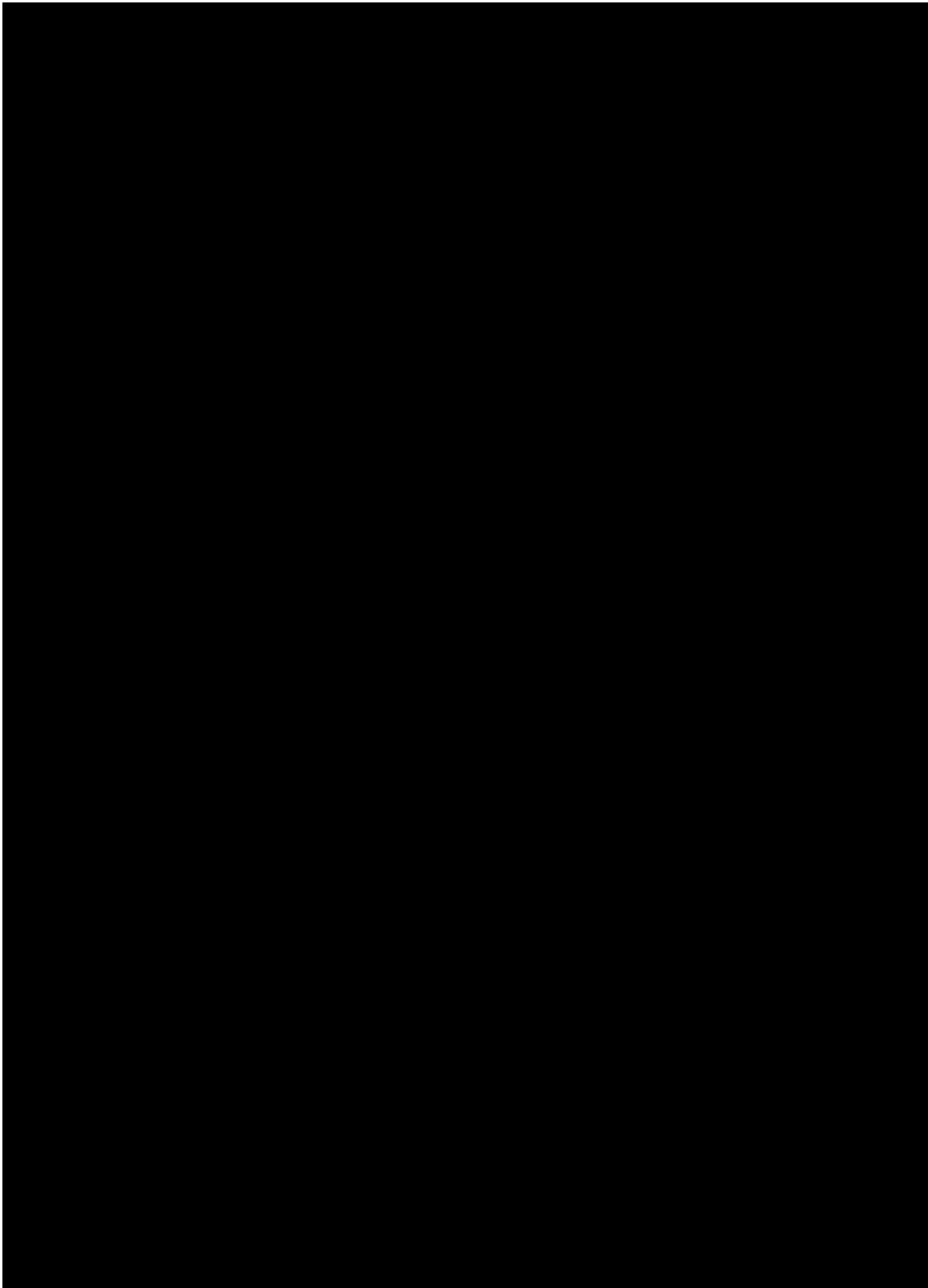
CONFIDENTIAL ANNEXURE AIB-47

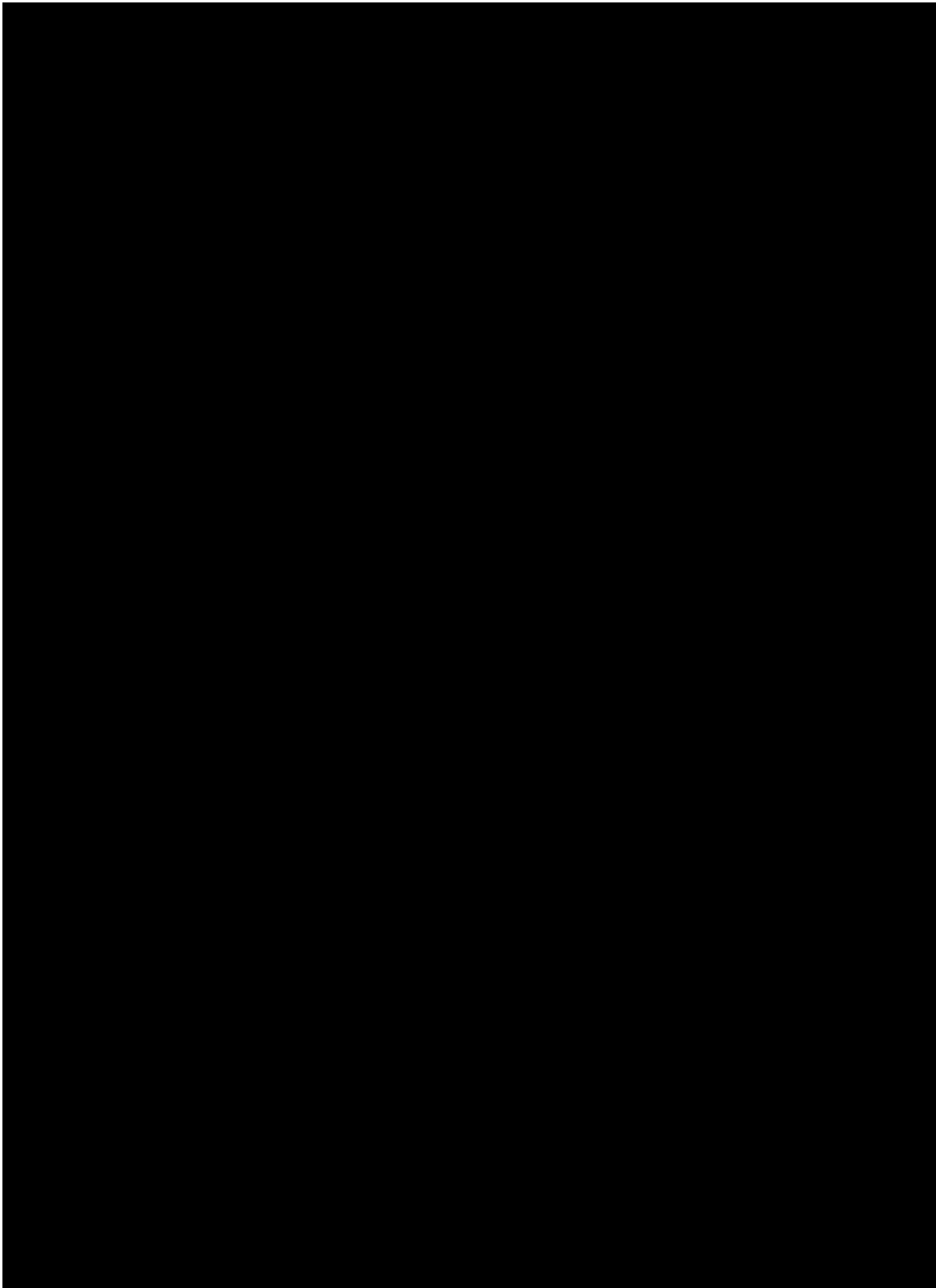
This is the confidential annexure marked **AIB-47** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me: 









No. NSD527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

FORTESCUE LIMITED (ACN 002 594 872) and others

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ANNEXURE AIB-48

This is the annexure marked **AIB-48** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me: 

Rohit Dighe

From: Bart Kolodziejczyk <kolodziejczykbartlomiej@gmail.com>
Sent: Friday, 5 November 2021 1:06 PM
To: Matthew Roper
Subject: Re: Iron flow battery - prior art and novelty of current invention

This Message Is From an External Sender

This email originated from outside of Fortescue. If the email seems suspicious, please use the Report Phish button in Outlook.

Hi Matt,

In this case, I will work over the weekend to finish the electrode write-up including prior art, importance, and novelty.

Bart

On Fri, 5 Nov 2021 at 09:21, Matthew Roper <matthew.roper@fmgl.com.au> wrote:

Great Thankyou Bart! to give a quick answer now without having reviewed I would say we will file the patent.

Best Regards,

Matthew Roper

From: Bart Kolodziejczyk <kolodziejczykbartlomiej@gmail.com>
Sent: Friday, 5 November 2021 9:32 AM
To: Matthew Roper <matthew.roper@fmgl.com.au>
Subject: Iron flow battery - prior art and novelty of current invention

Hi Matt,

In addition to the invention disclosure shared before, I am sending further information on the iron flow battery. I have done an extensive search and have described prior art. I have also emphasised the novelty or point of difference of the current invention.

Let me know what you want to do next. If we are not filing this patent then there's no point for me to do a follow-up on the electrode.

Bart

No. NSD527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

FORTESCUE LIMITED (ACN 002 594 872) and others

Applicants

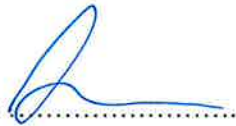
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

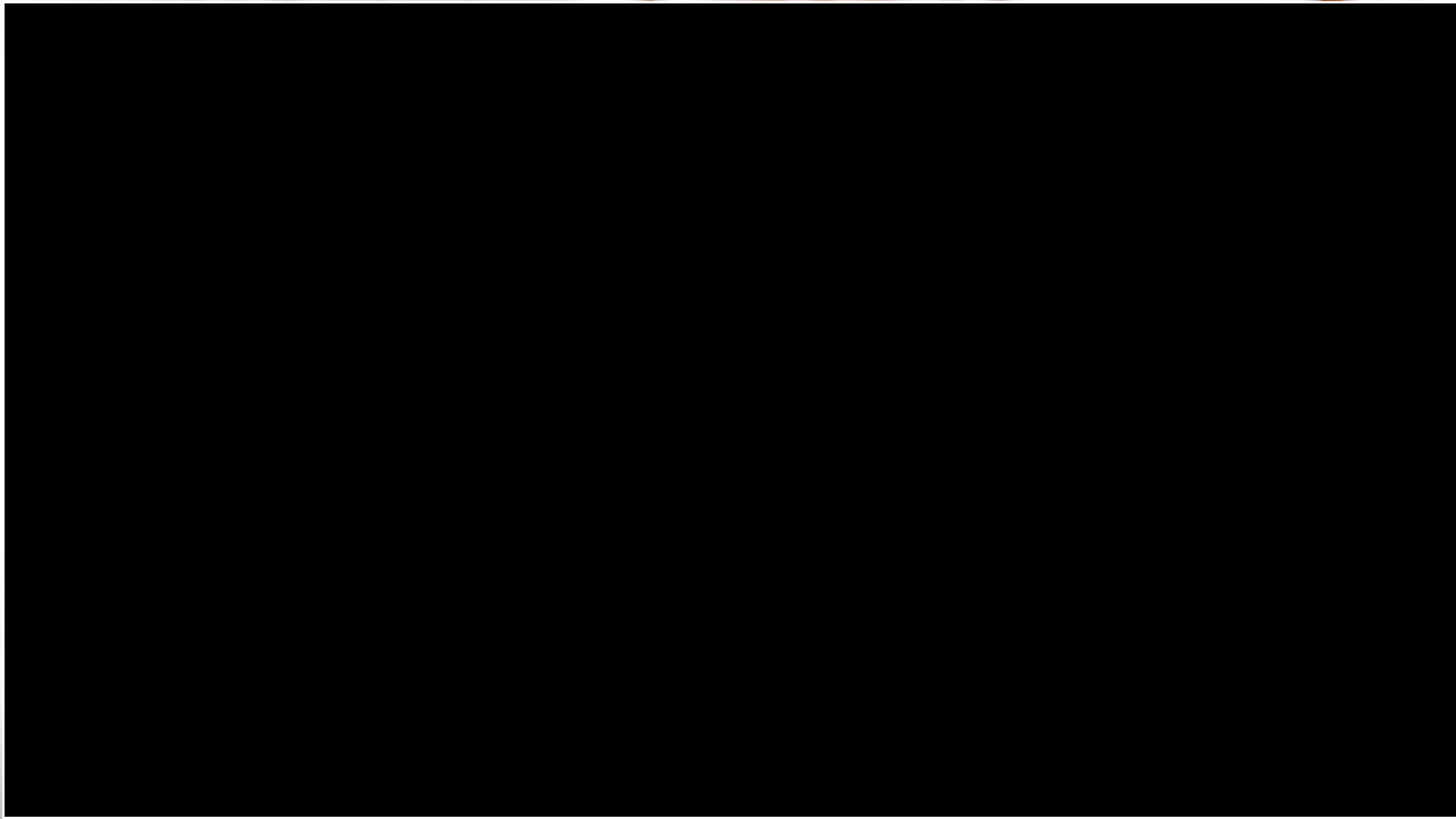
Respondents

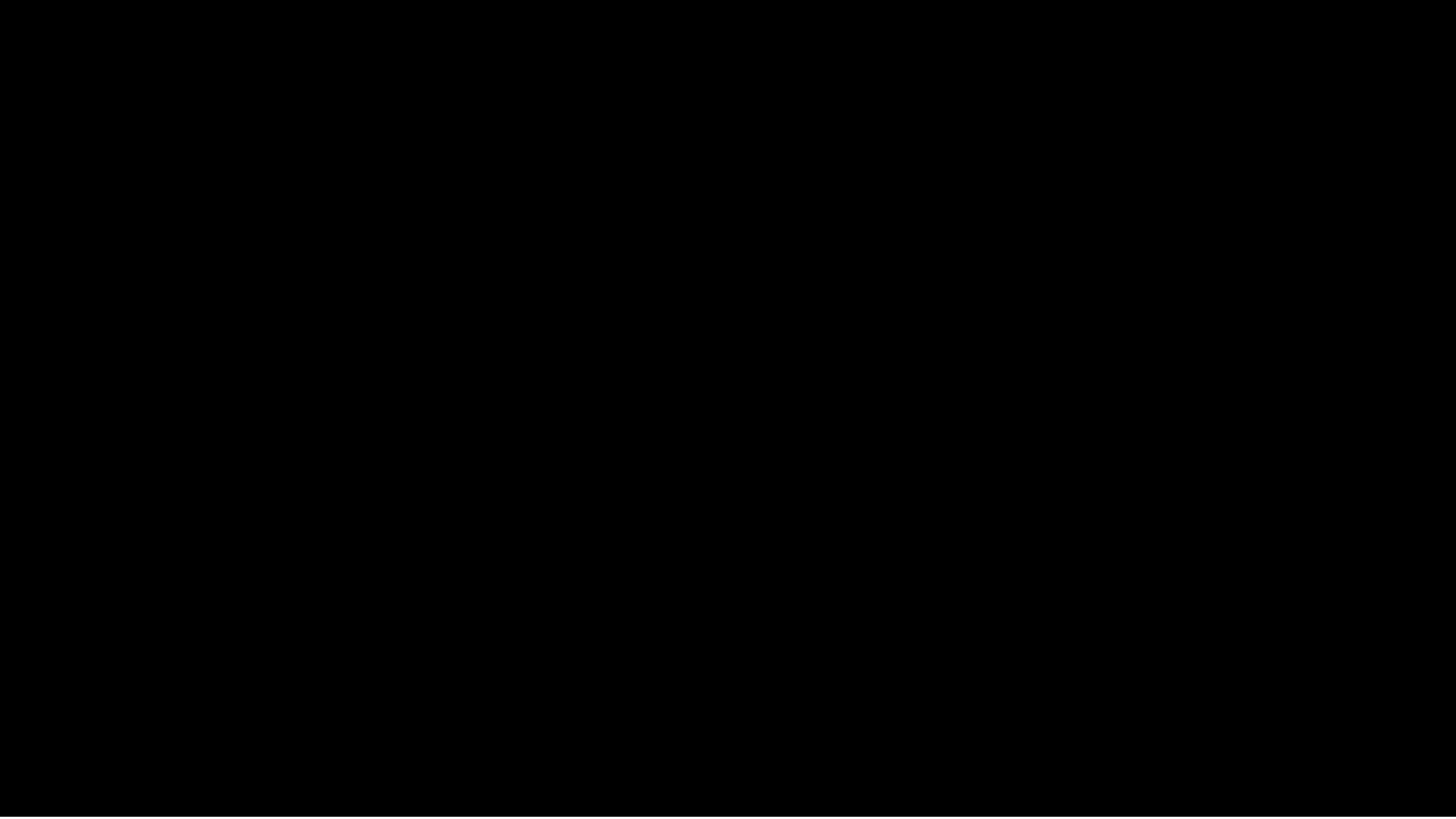
CONFIDENTIAL ANNEXURE AIB-49

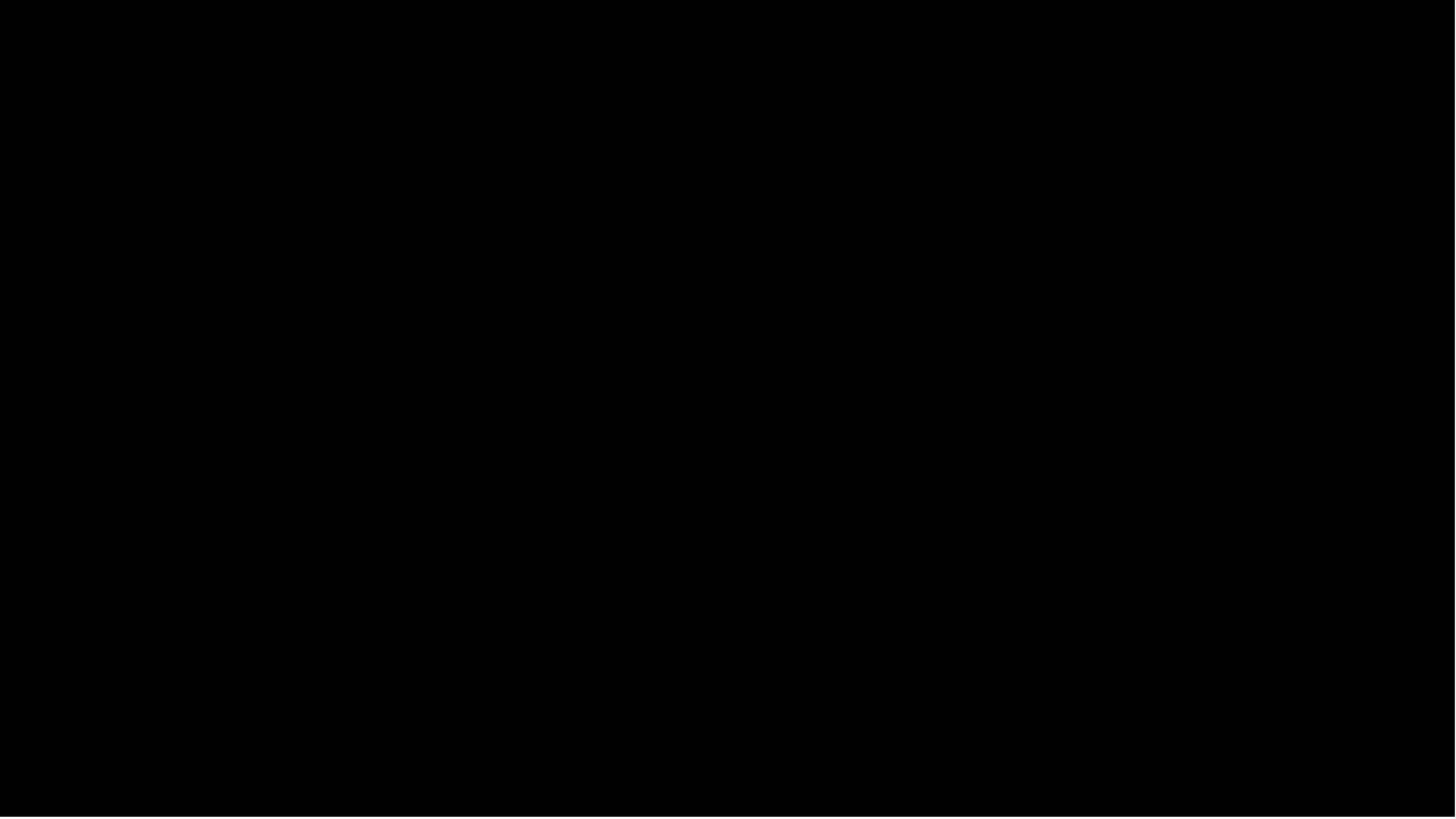
This is the confidential annexure marked **AIB-49** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

Before me:









No. NSD527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

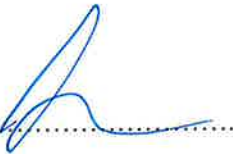
FORTESCUE LIMITED (ACN 002 594 872) and others
Applicants

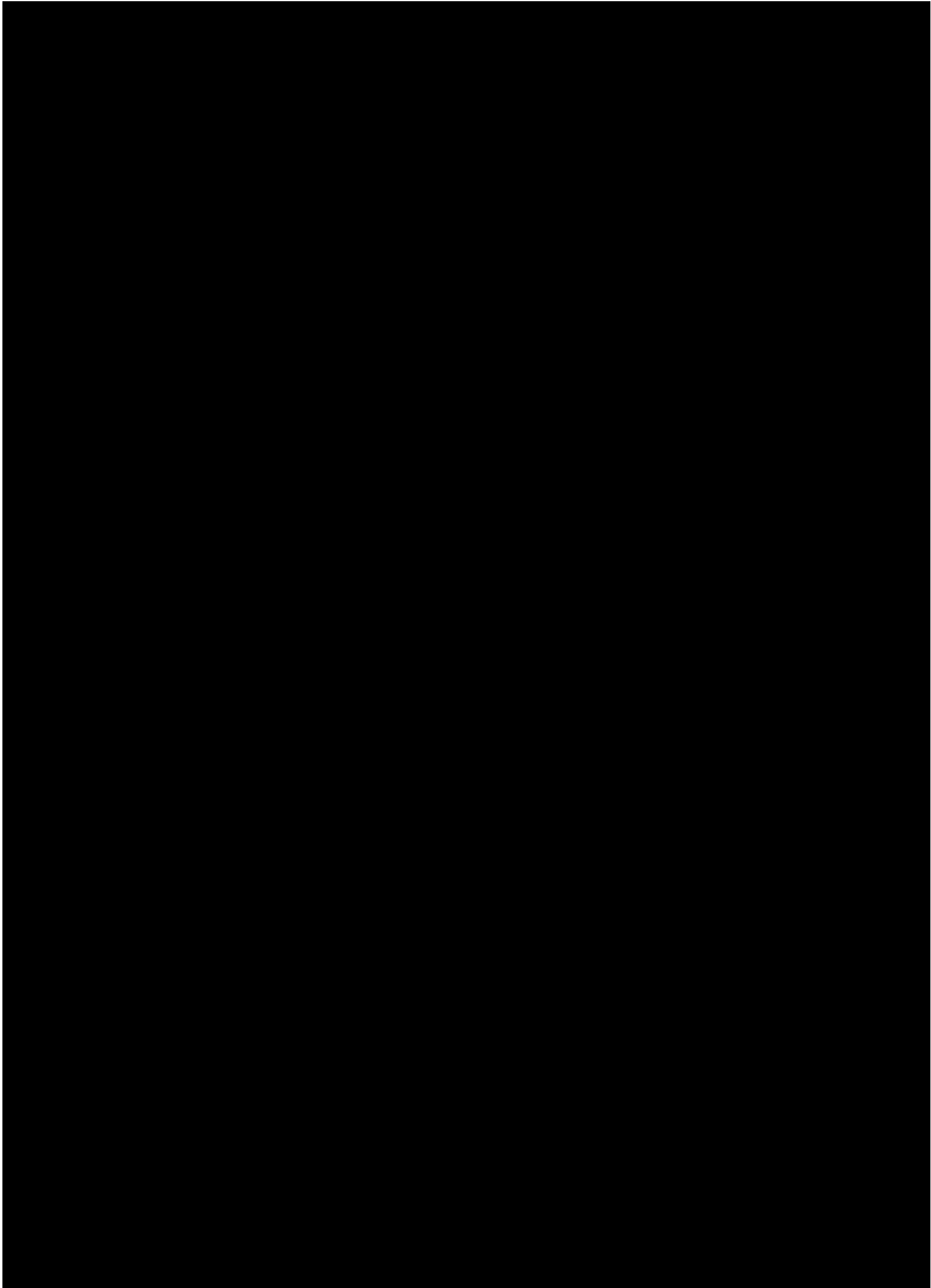
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others
Respondents

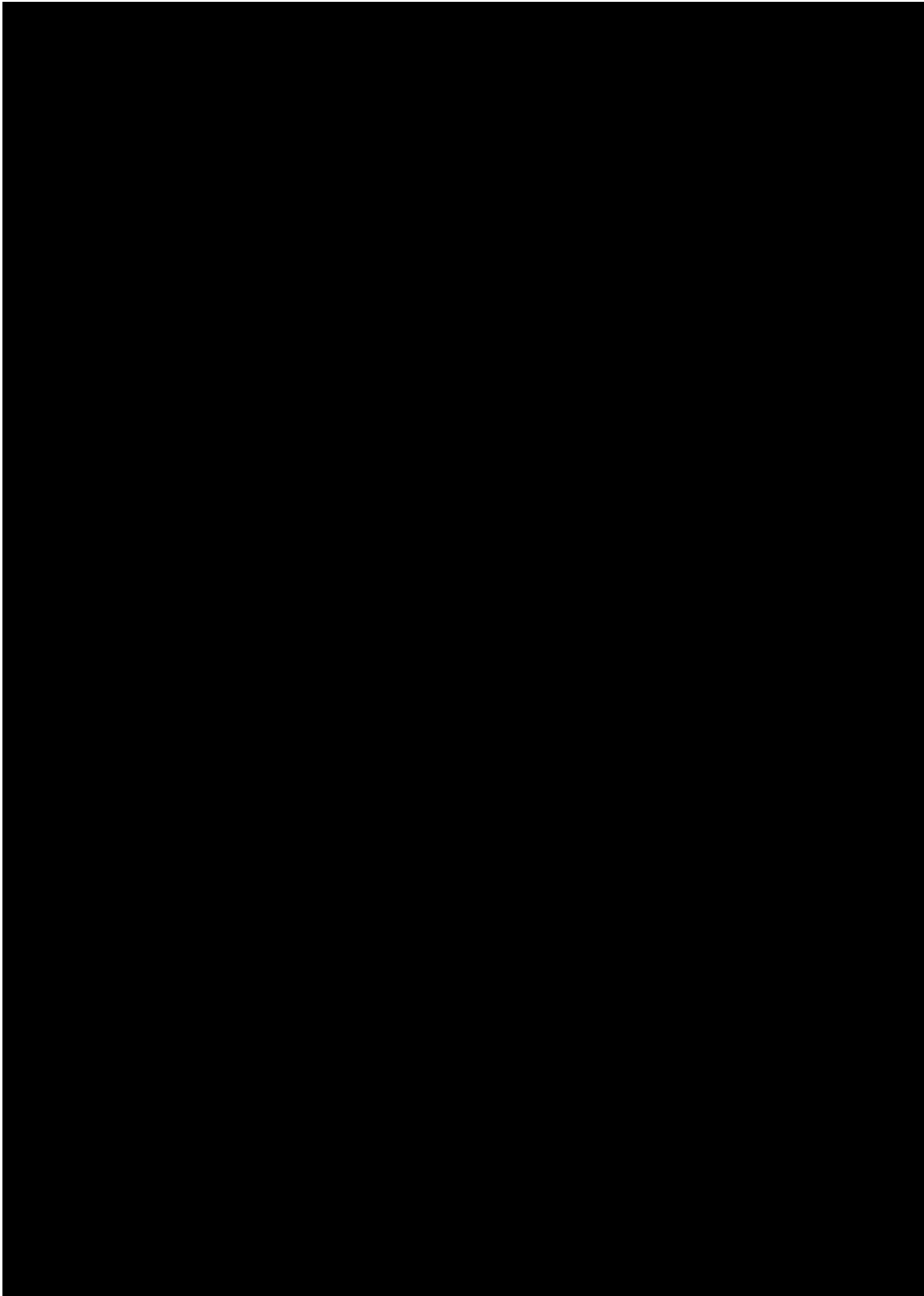
CONFIDENTIAL ANNEXURE AIB-50

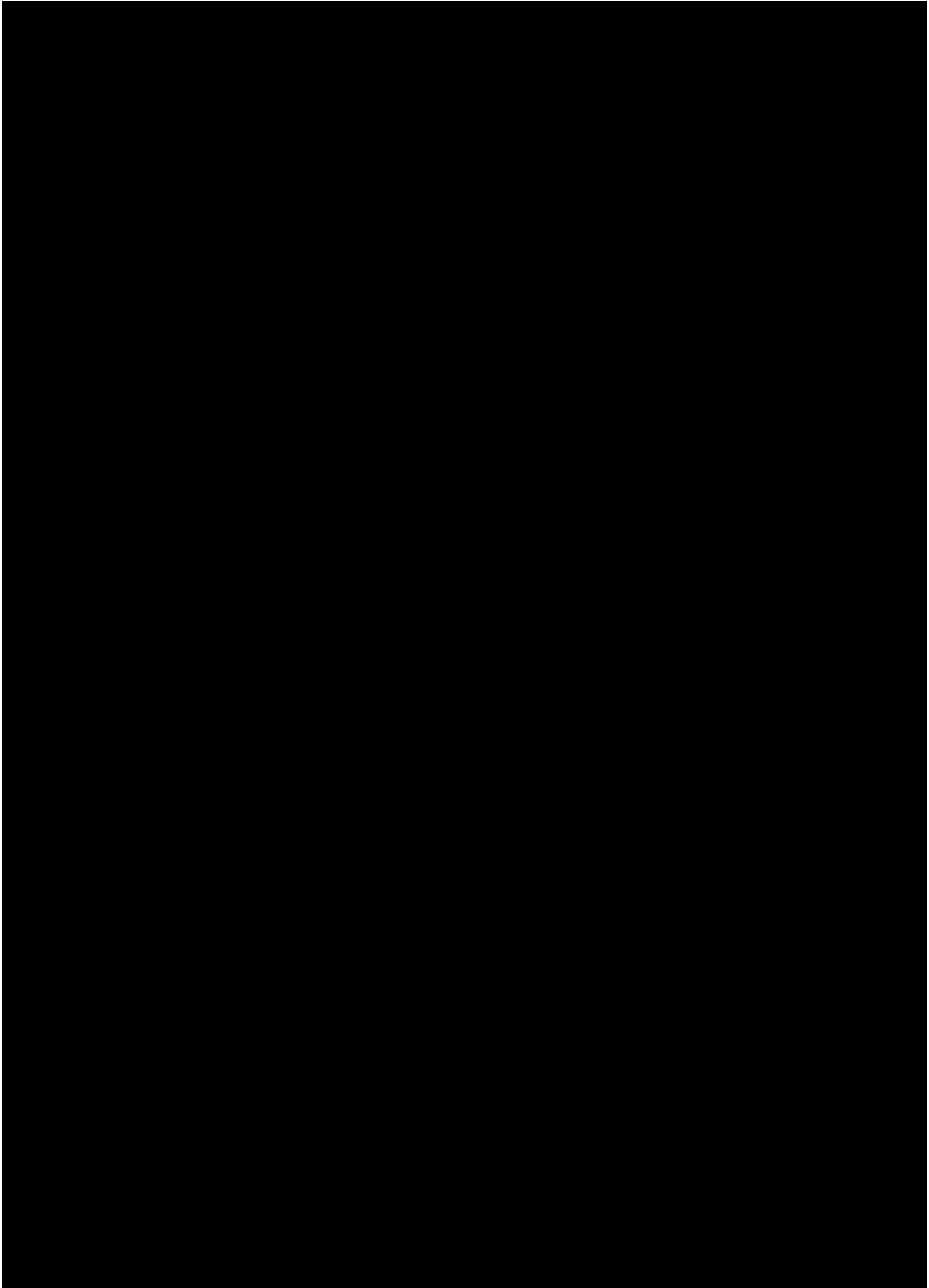
This is the confidential annexure marked **AIB-50** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

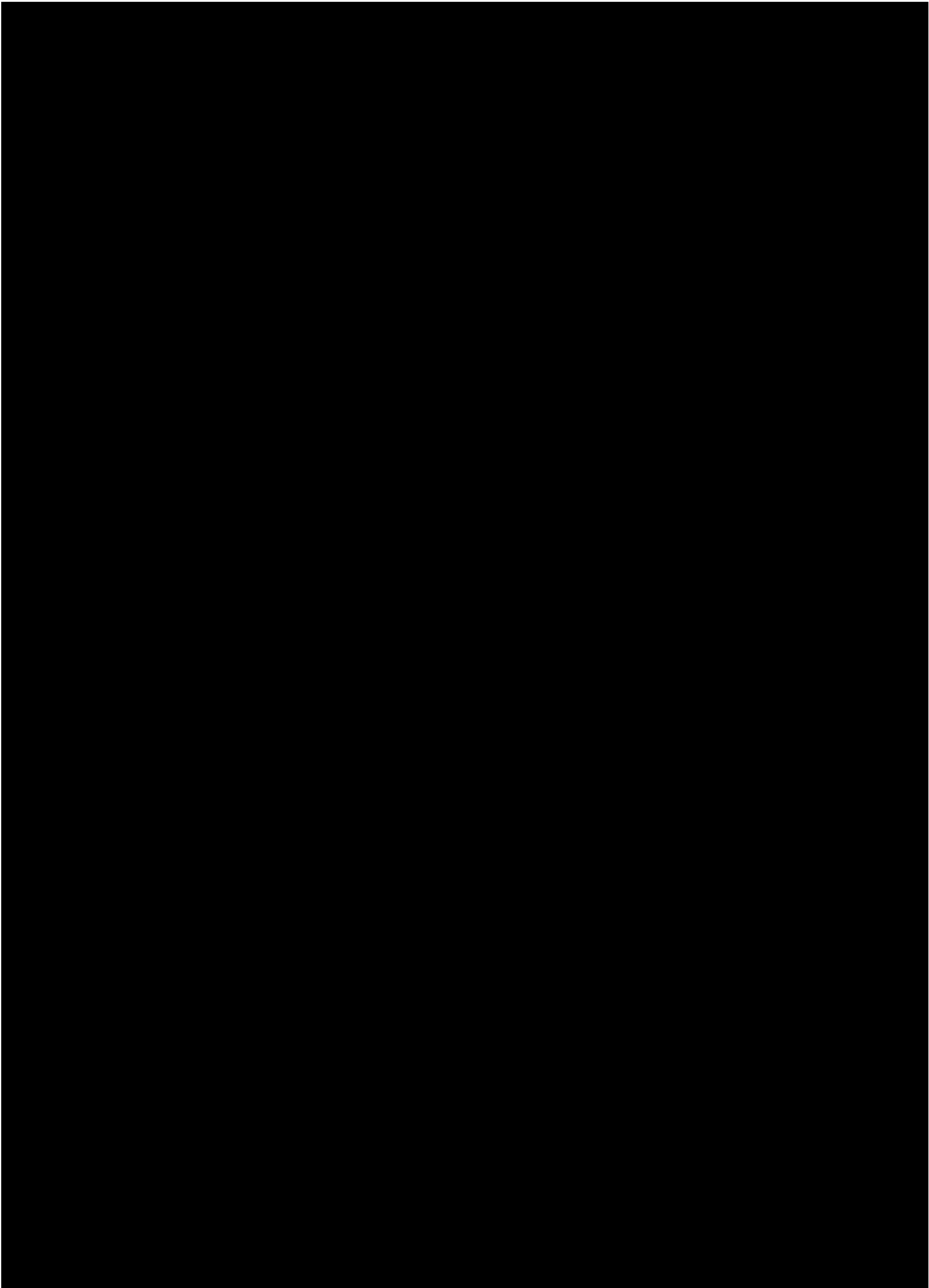
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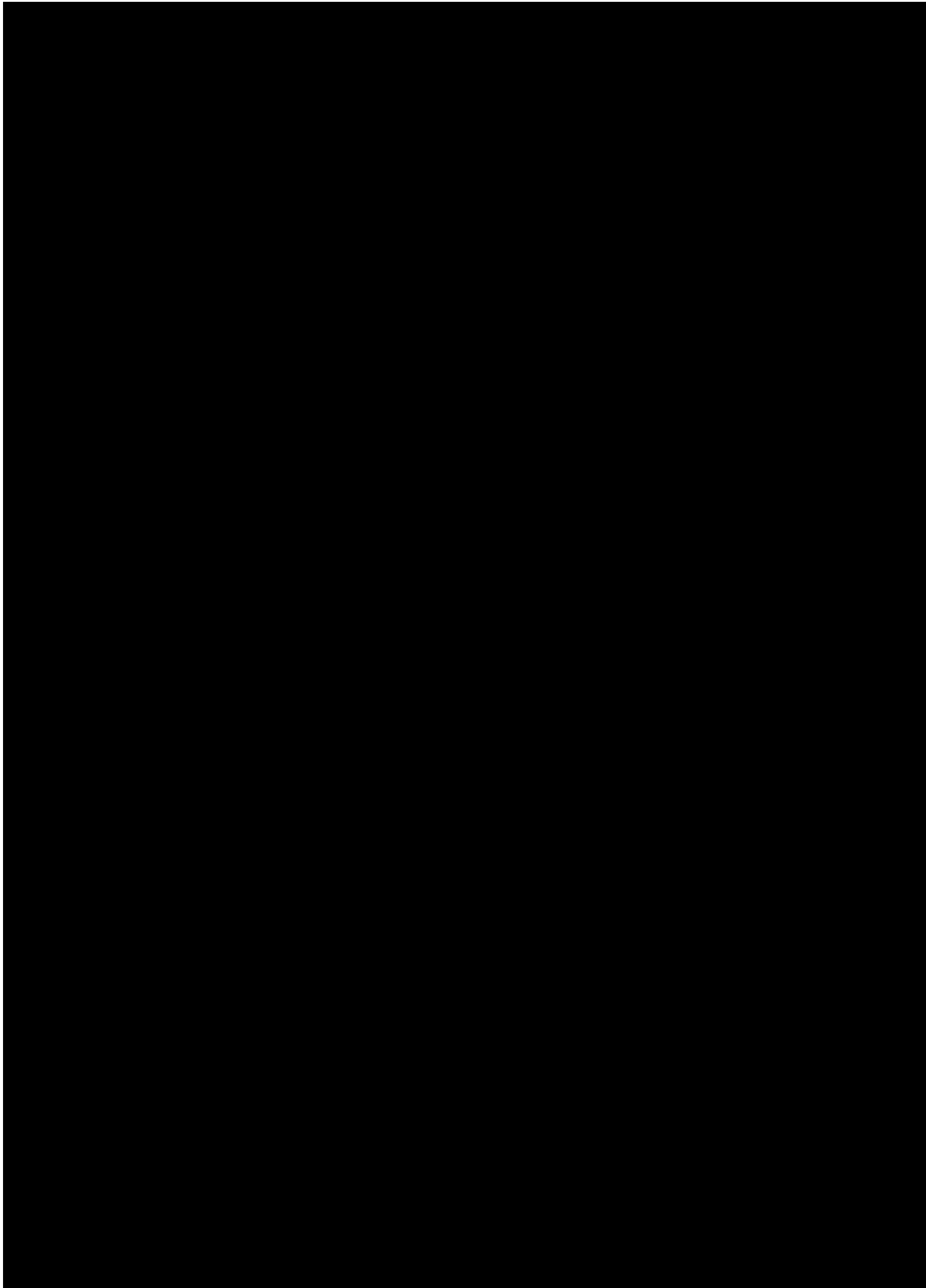


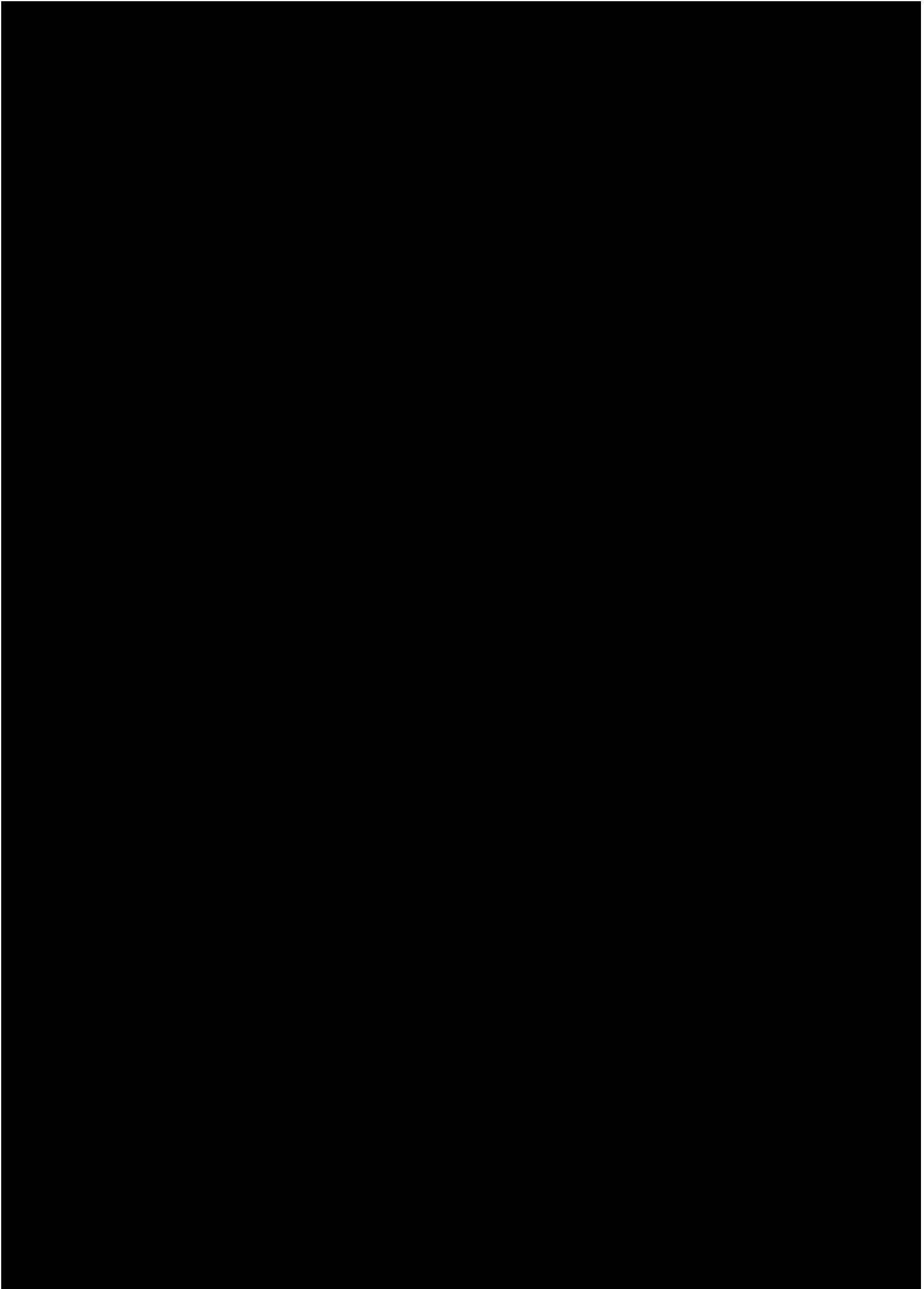


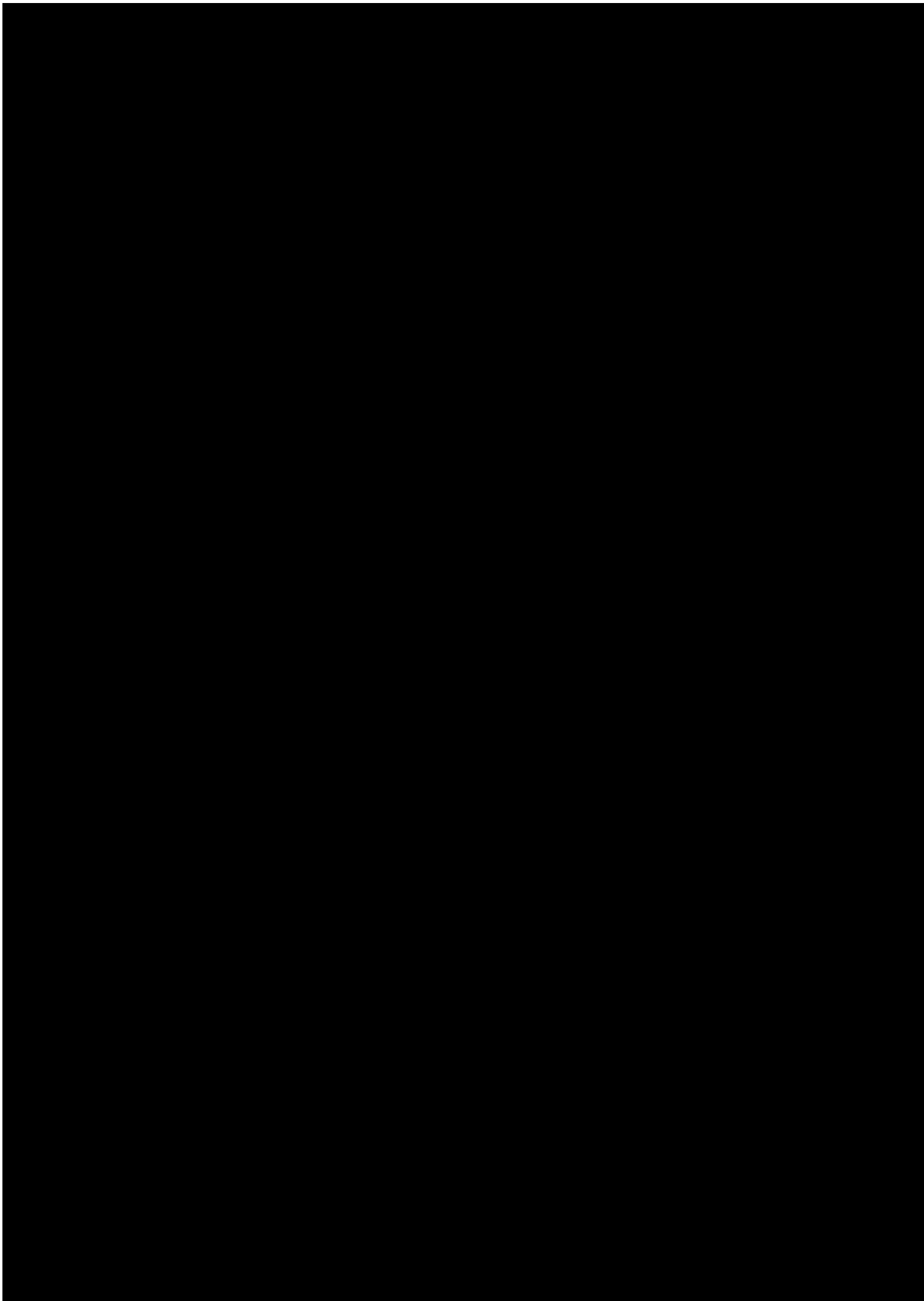


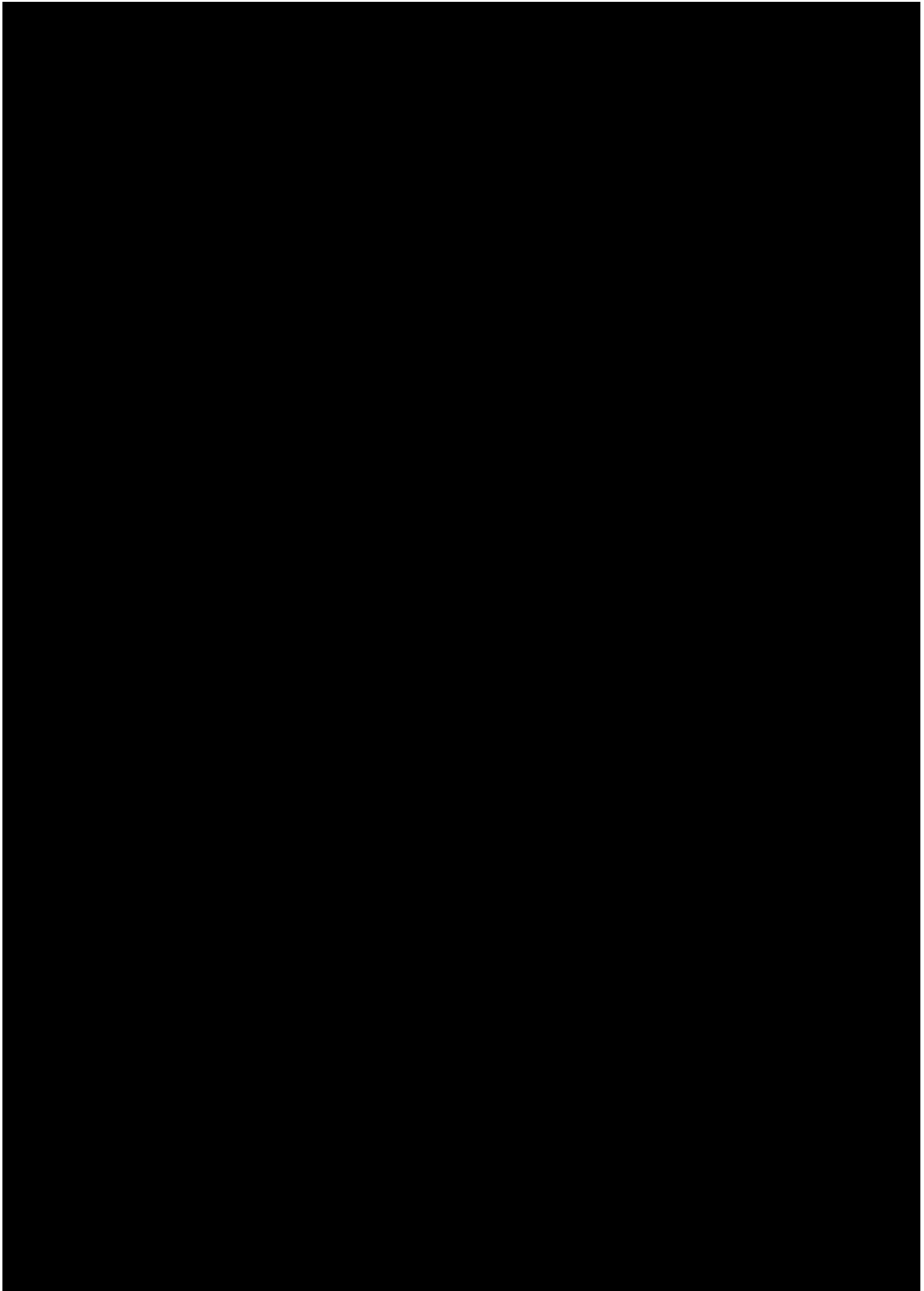


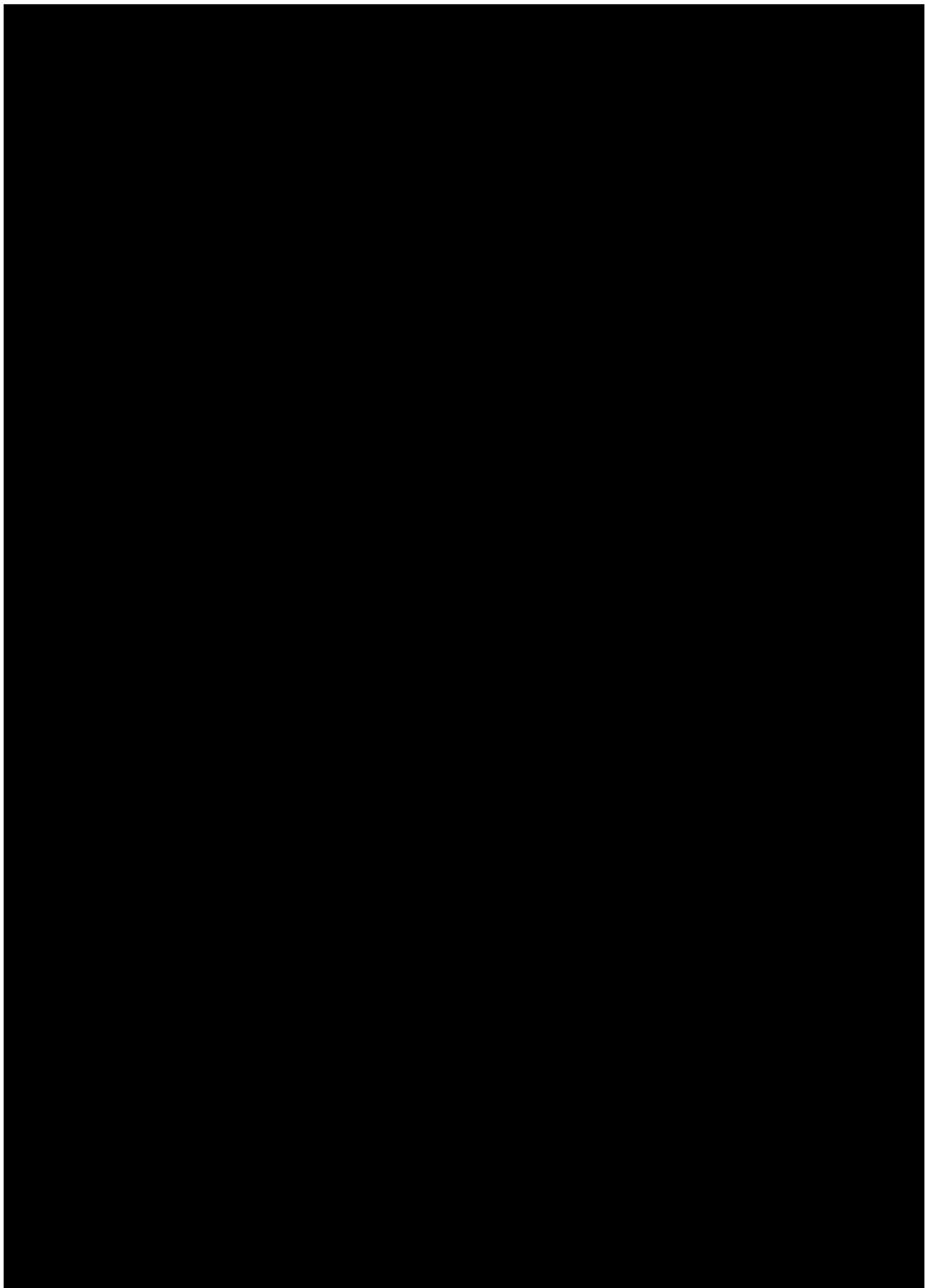


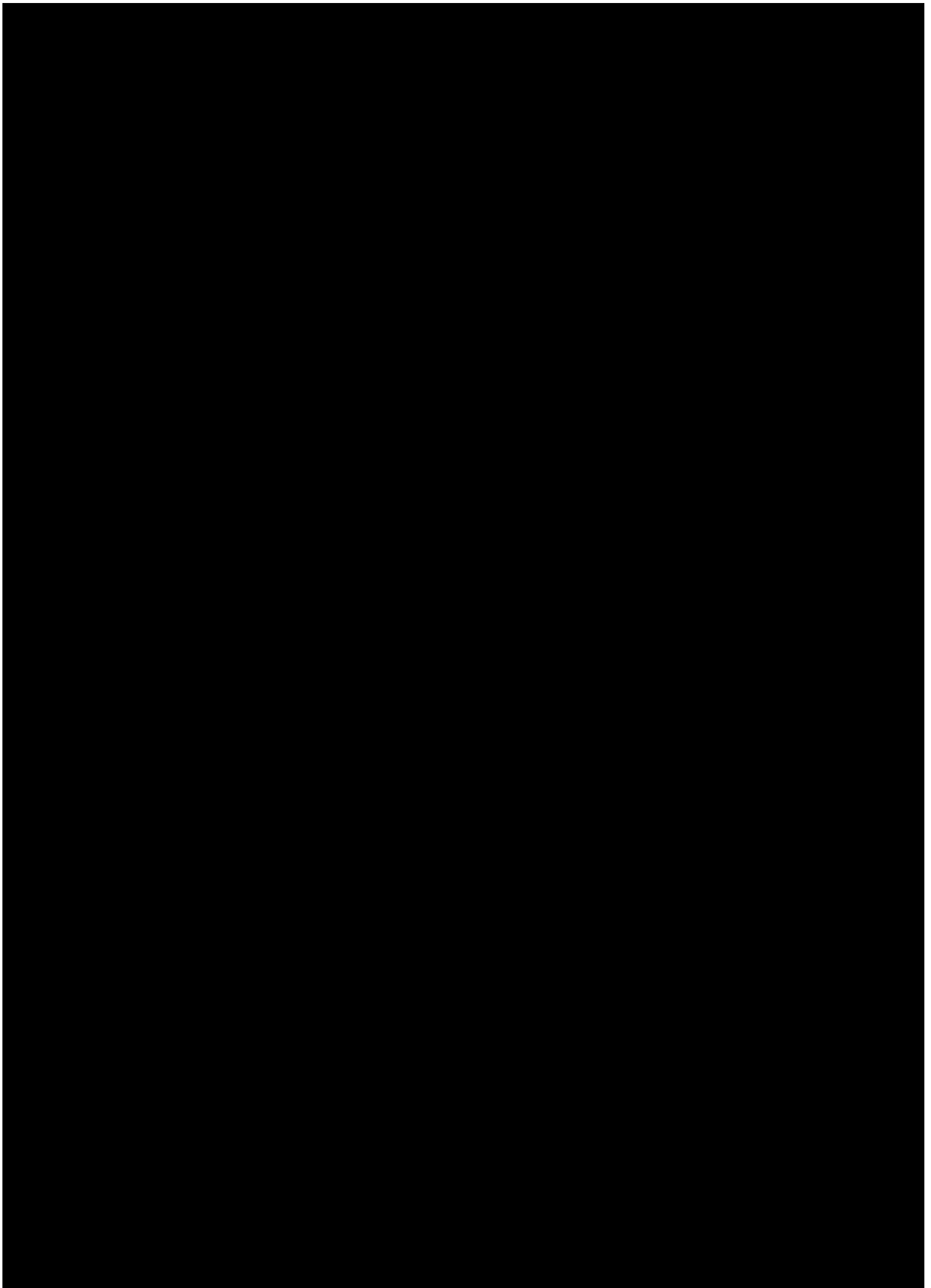


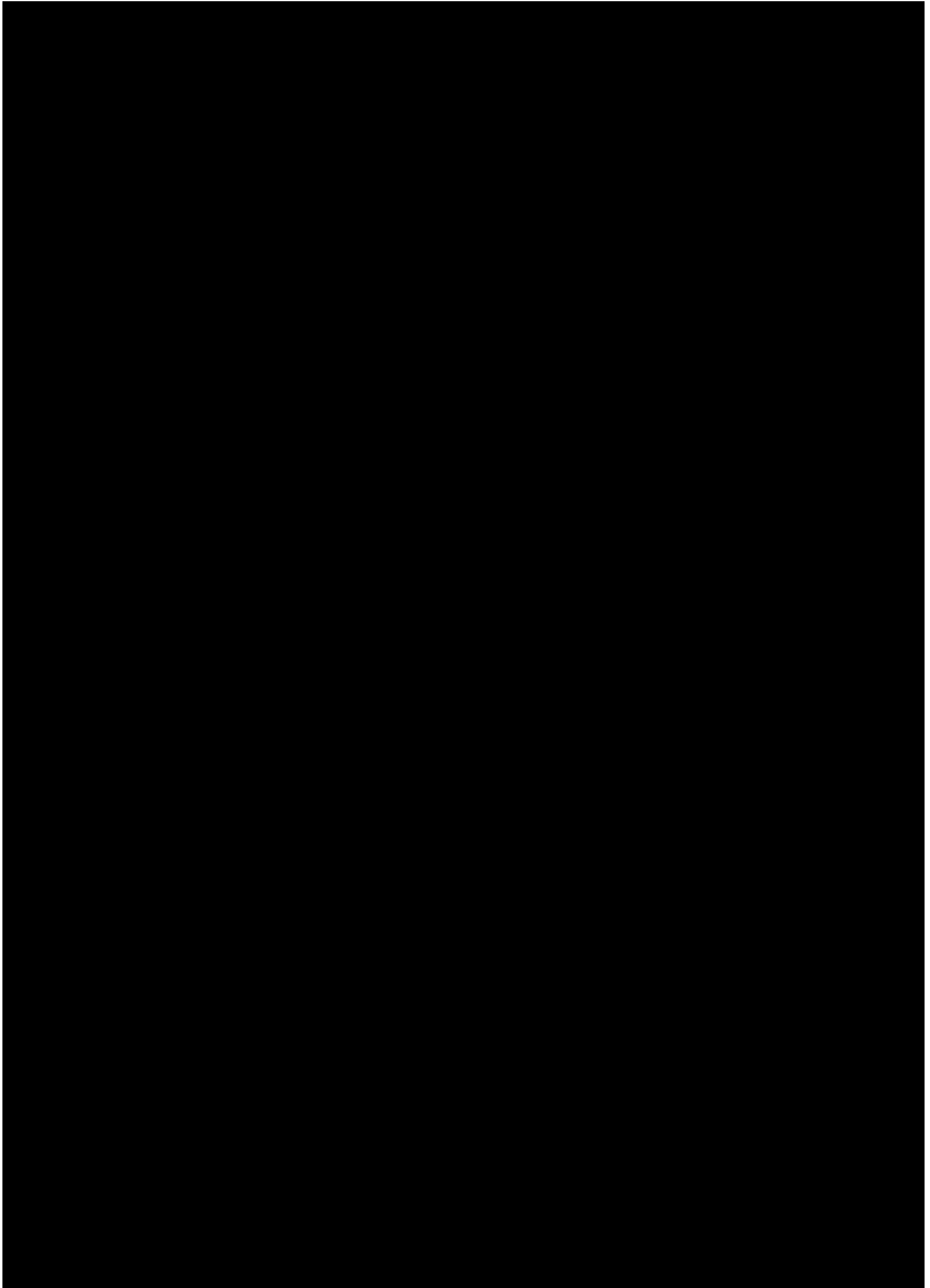


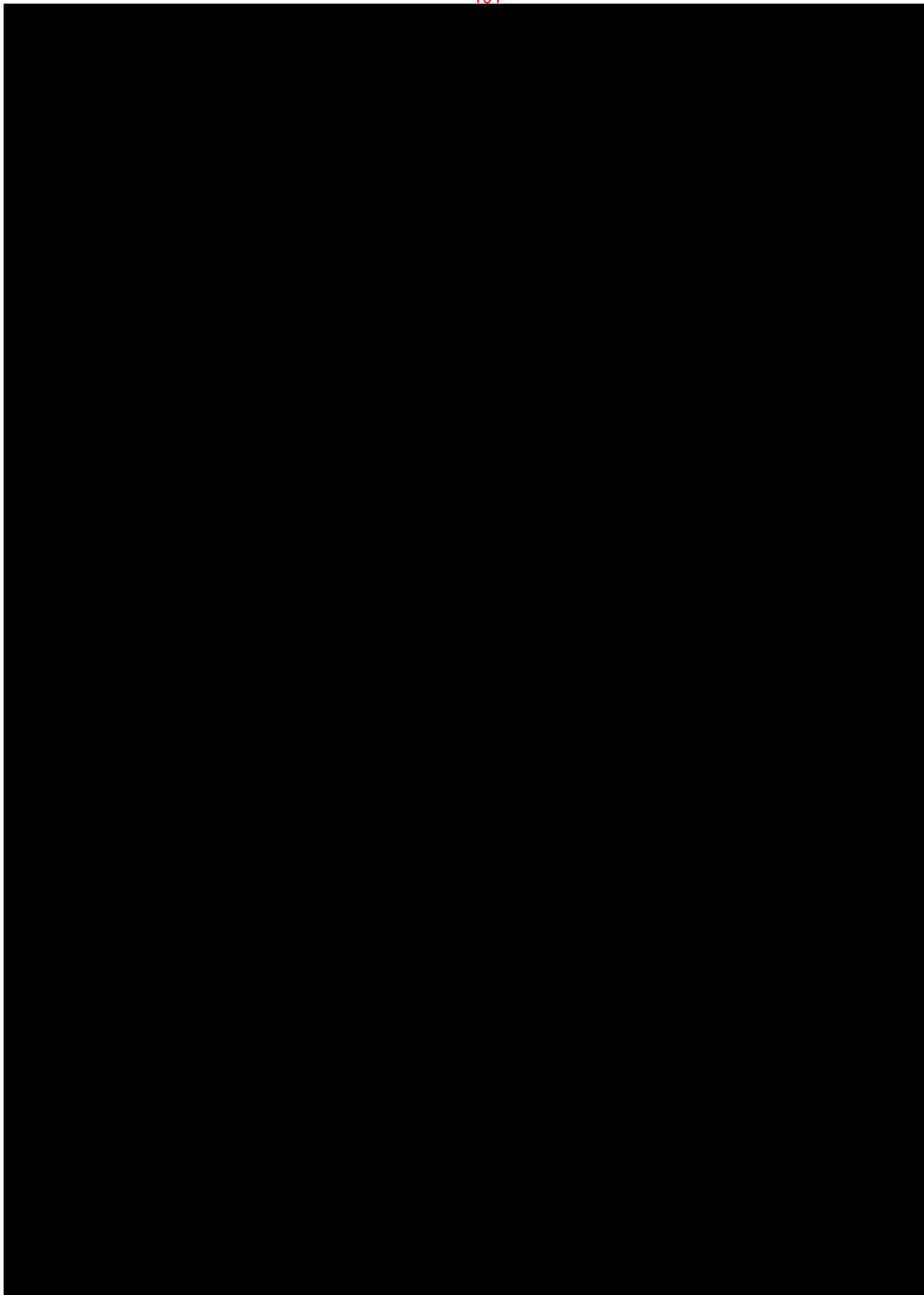


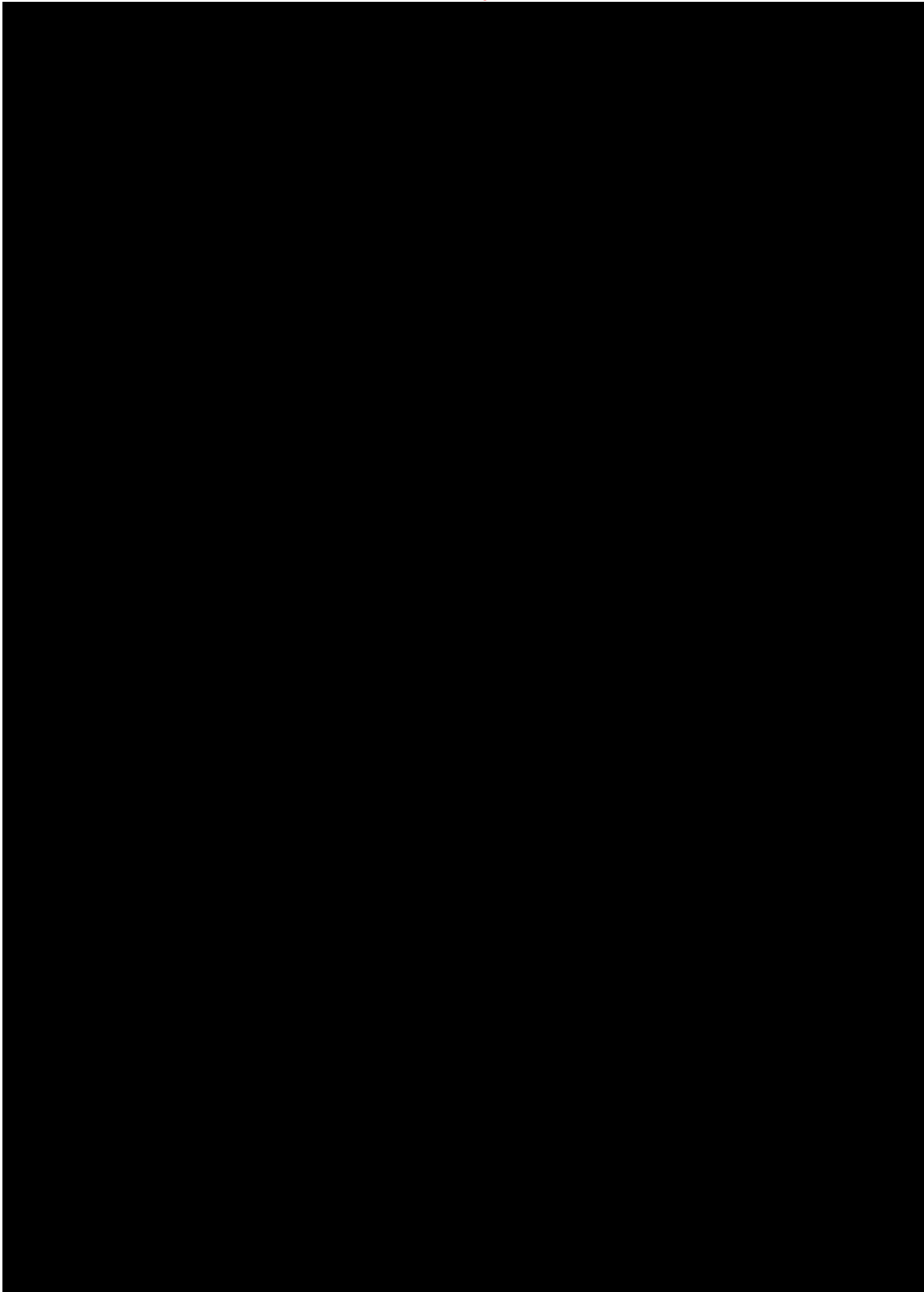


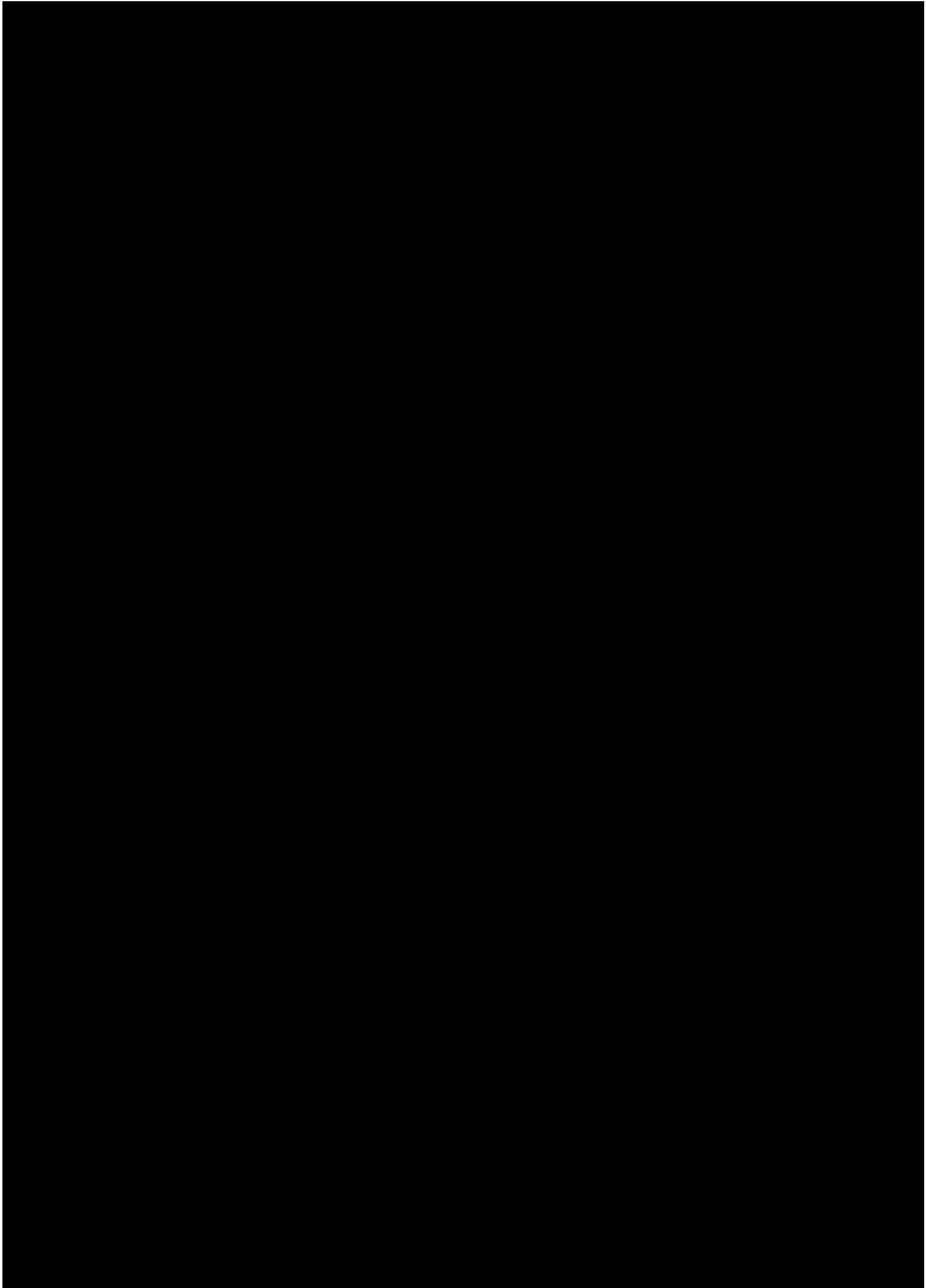


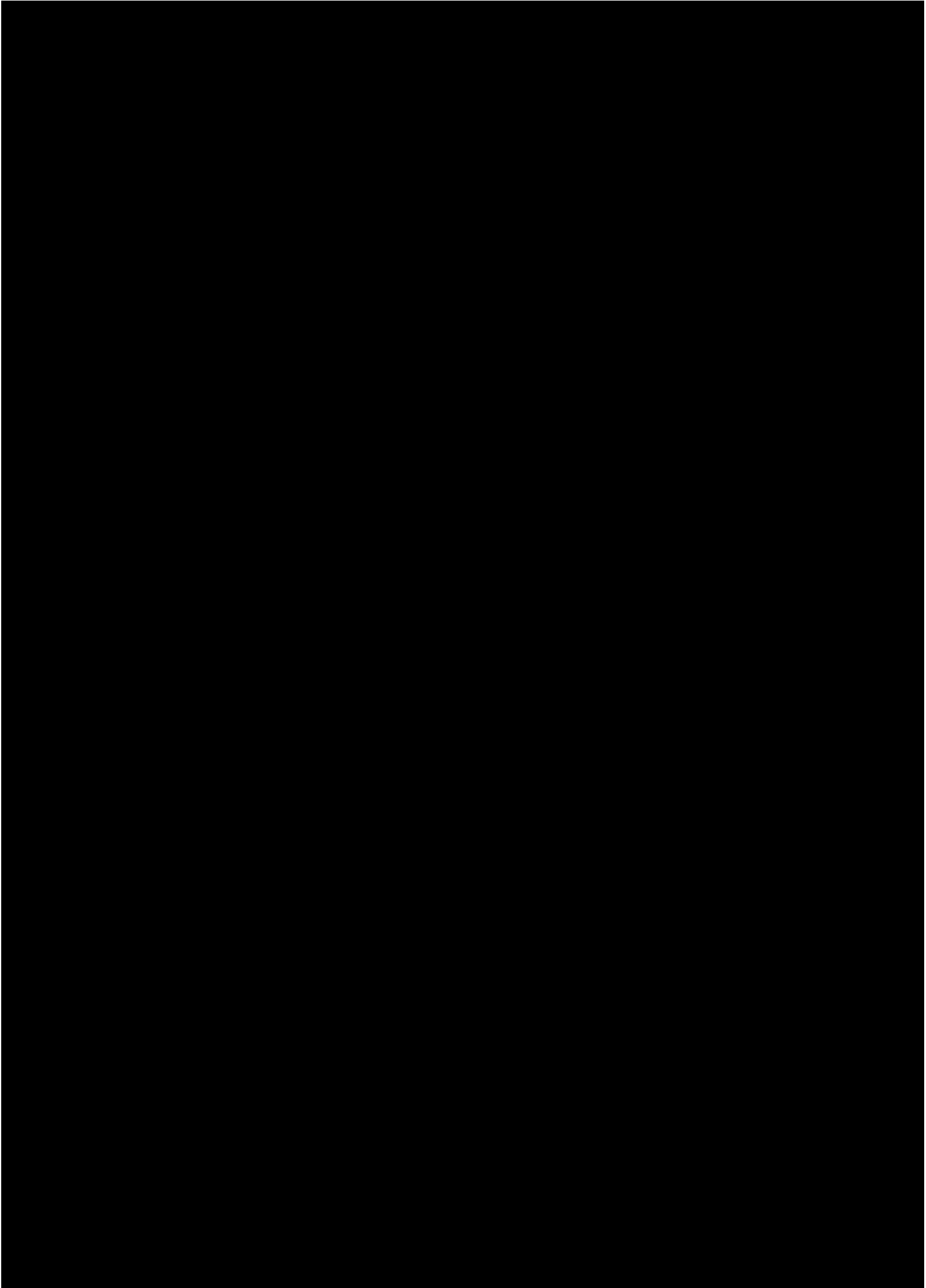


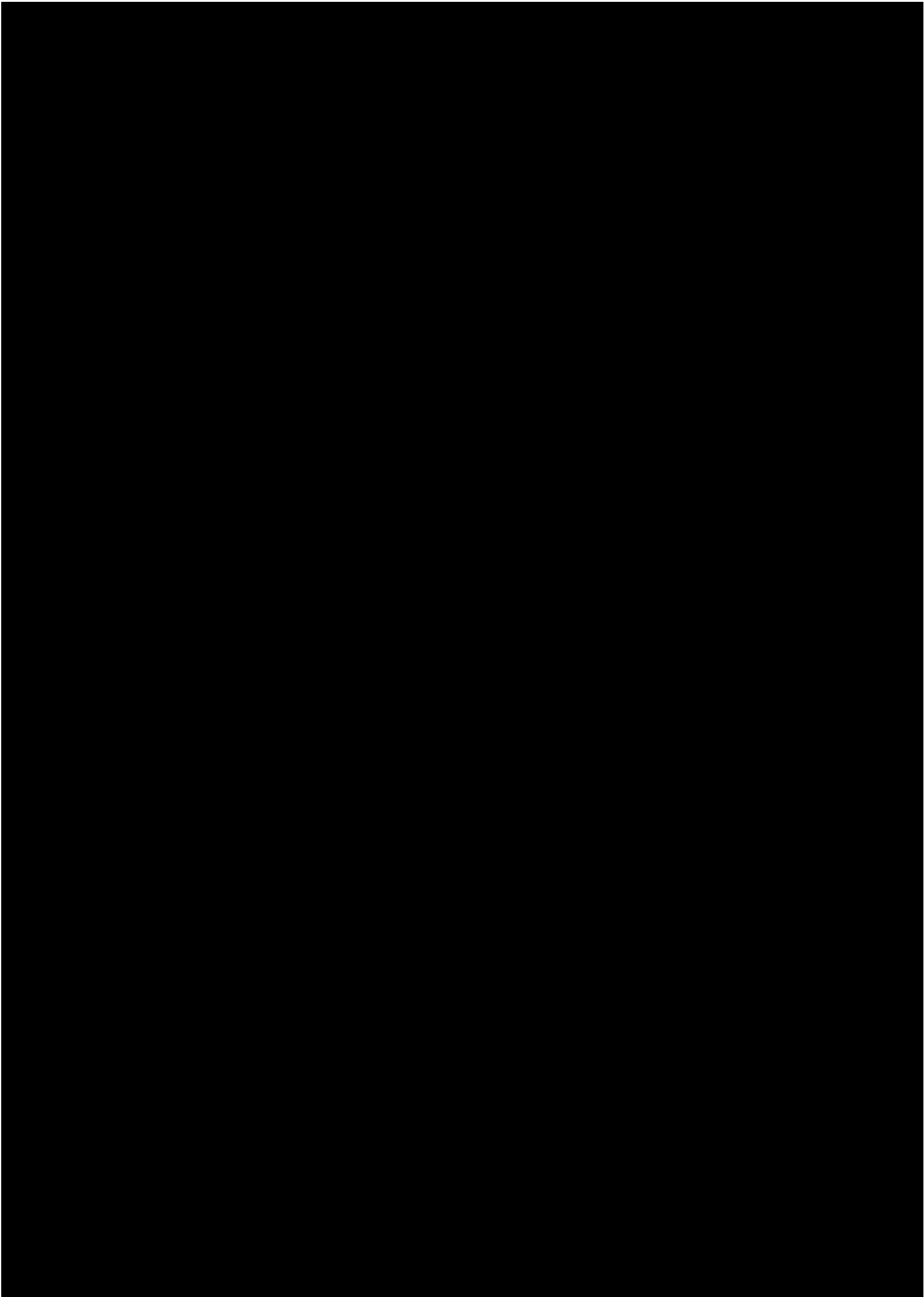


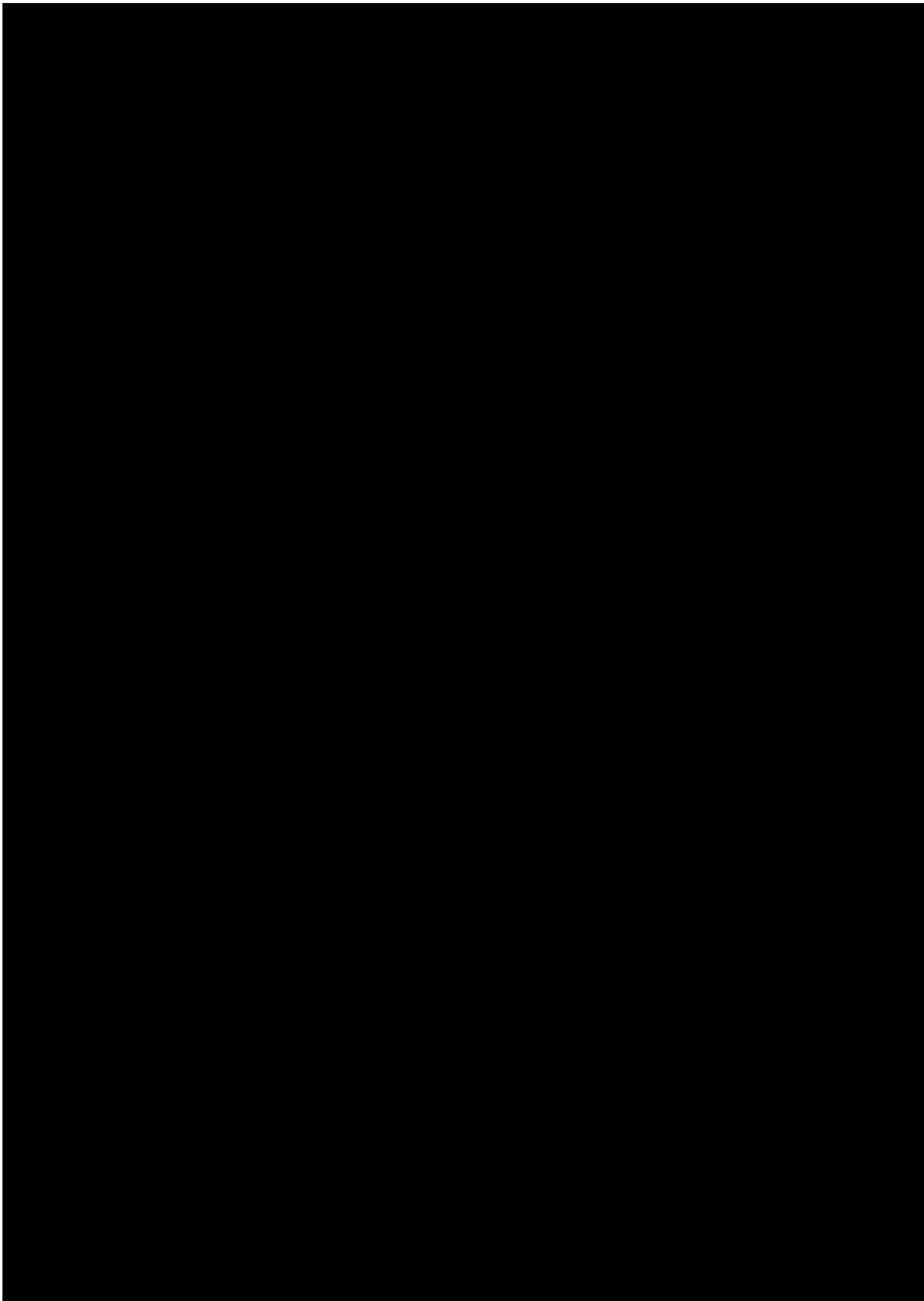


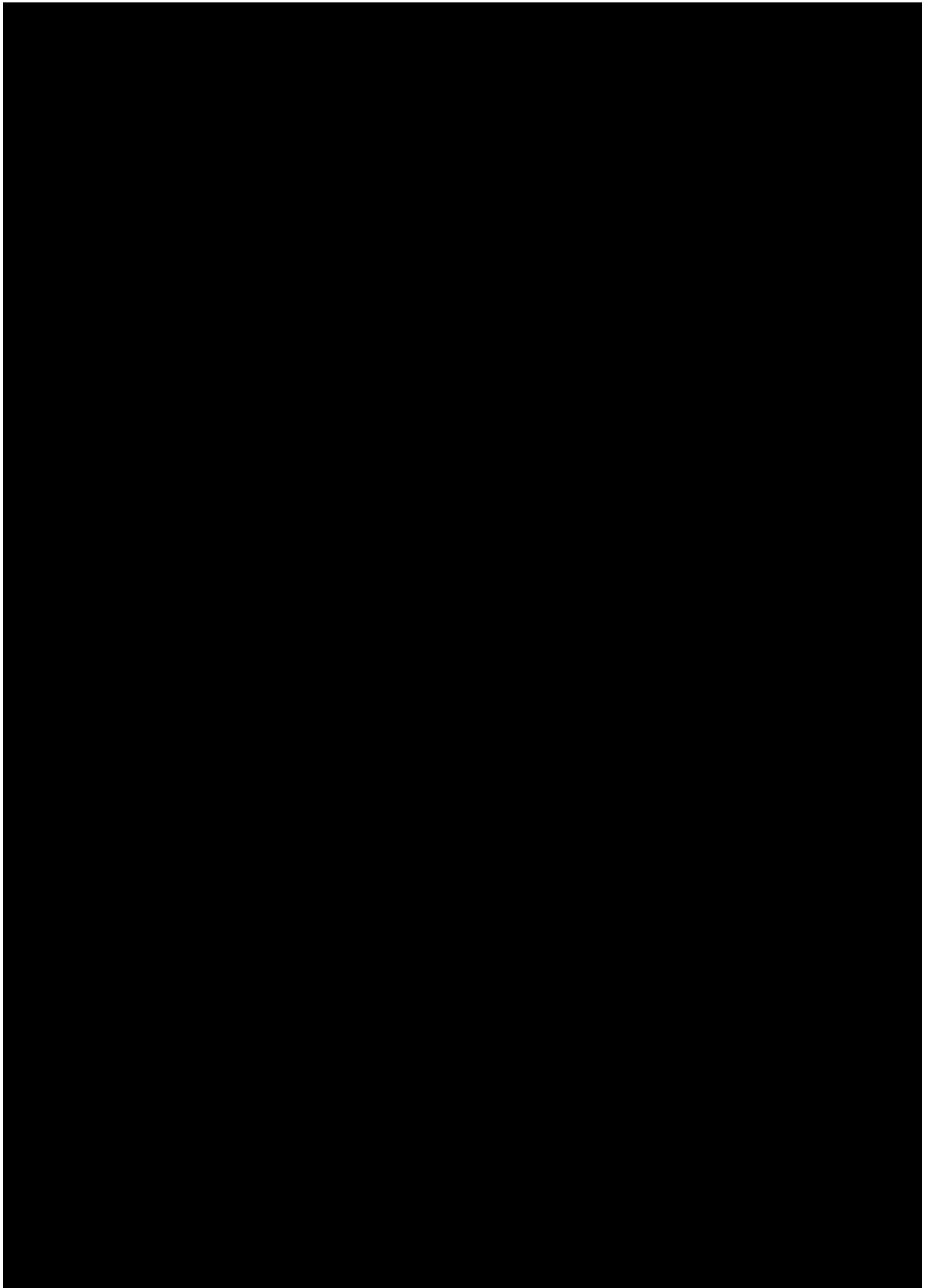


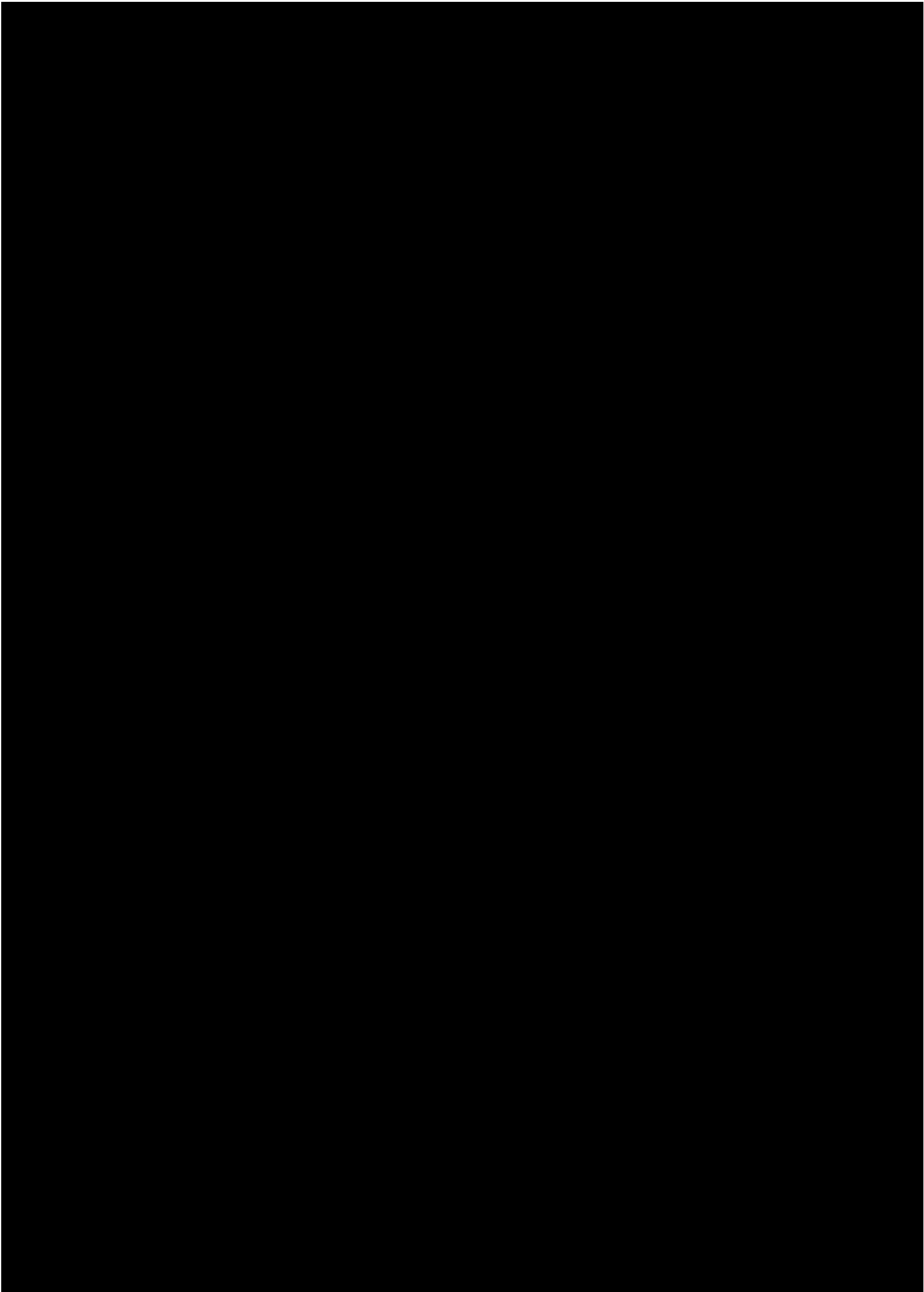


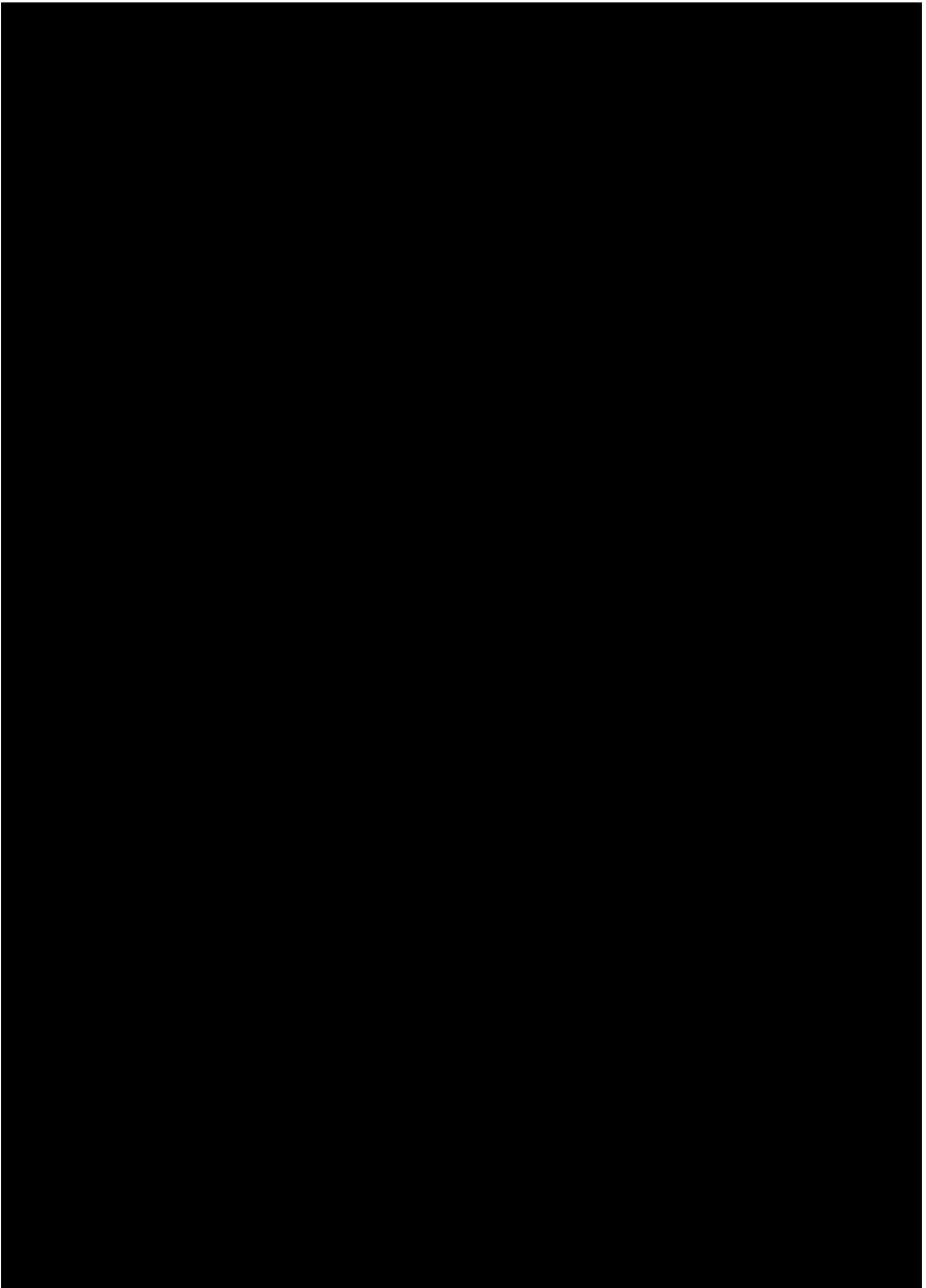


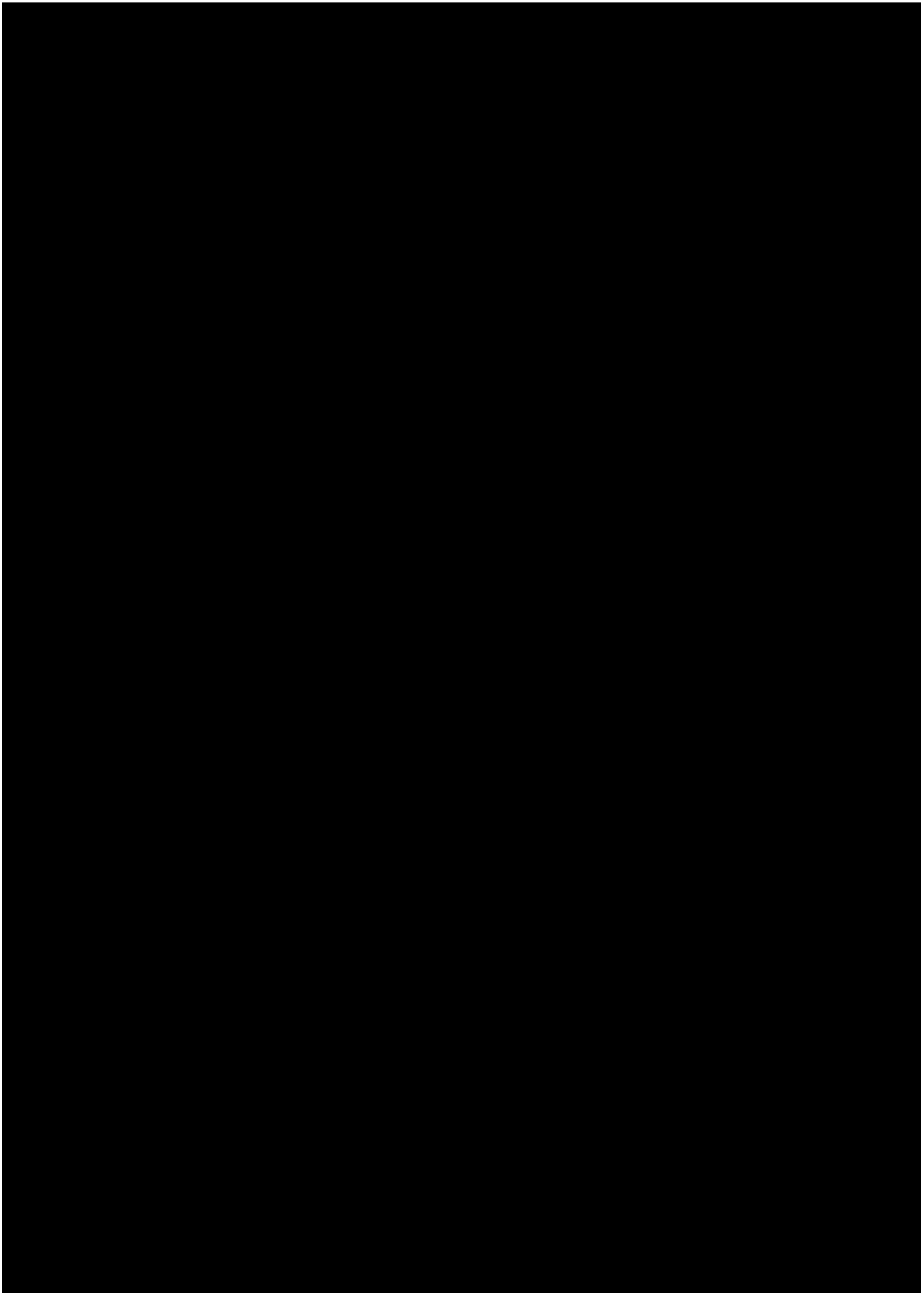


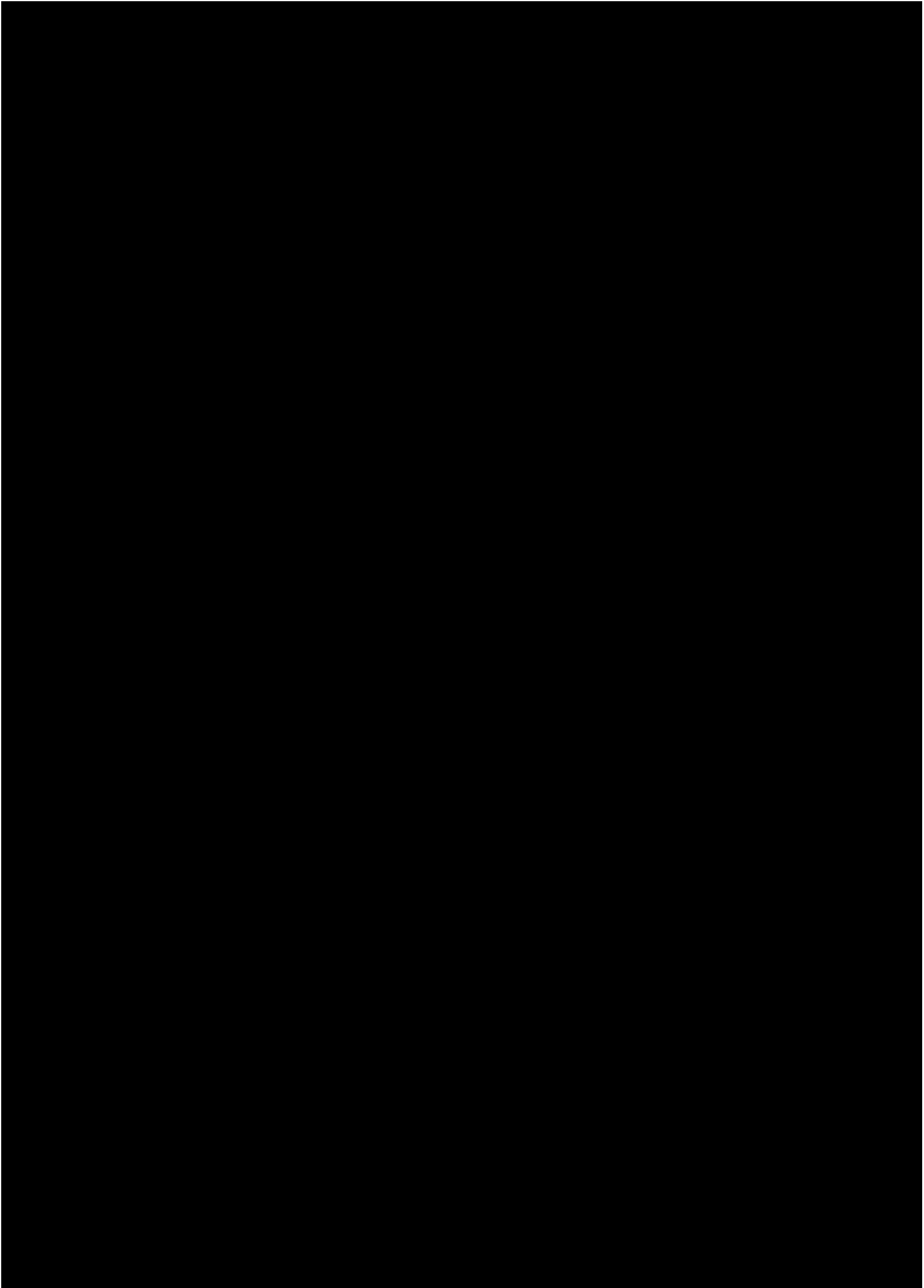


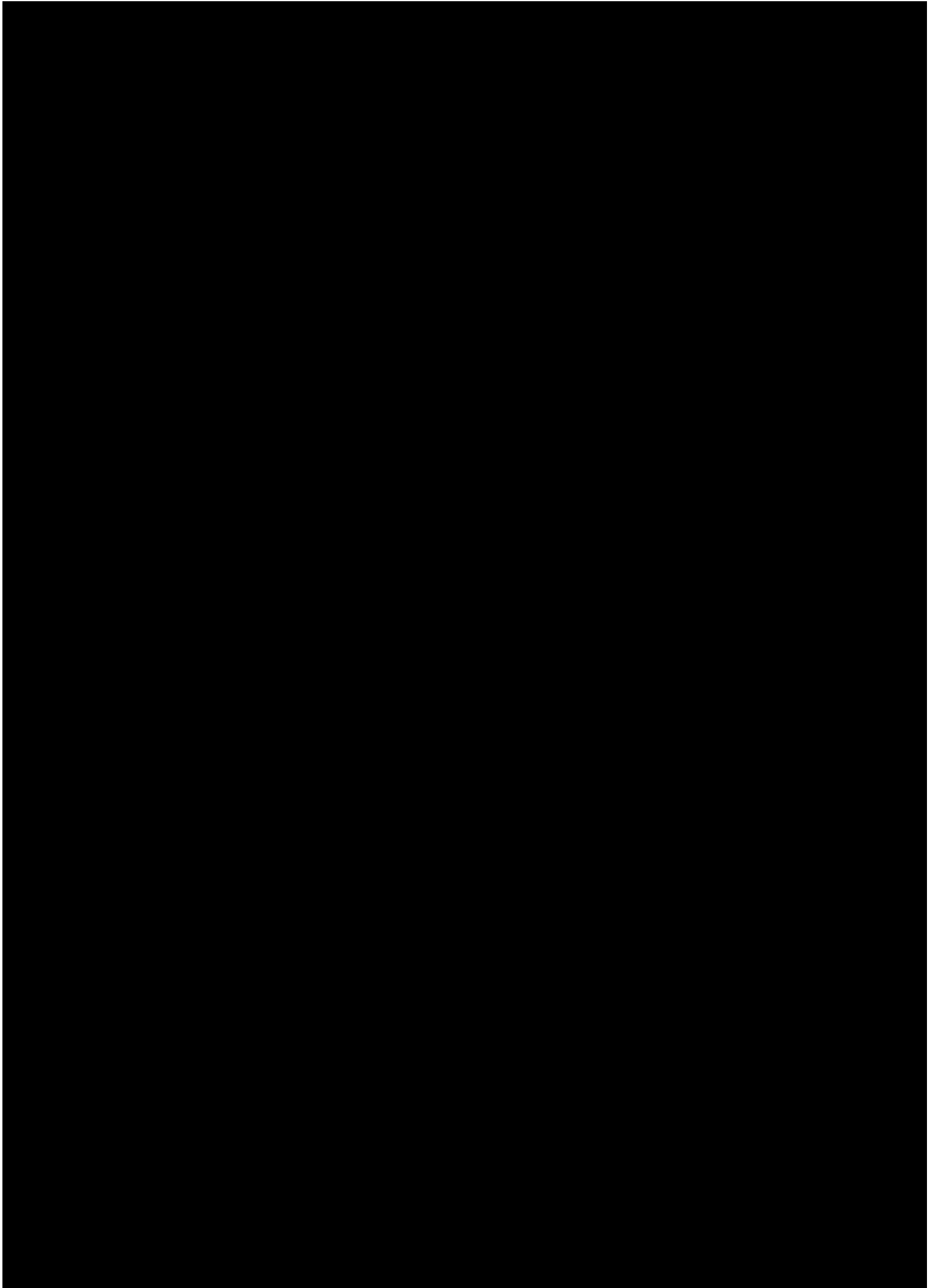


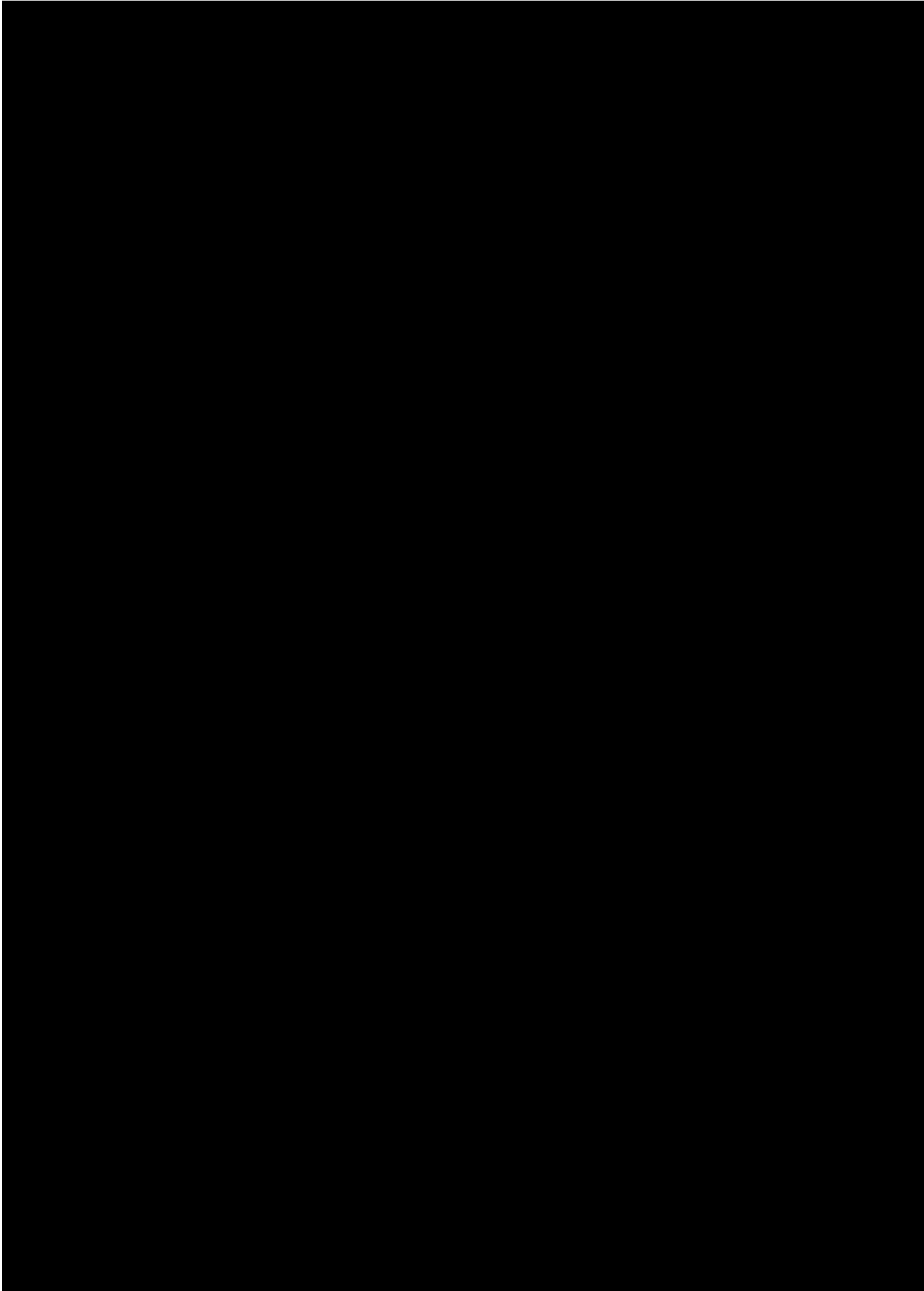












No. NSD527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

FORTESCUE LIMITED (ACN 002 594 872) and others

Applicants

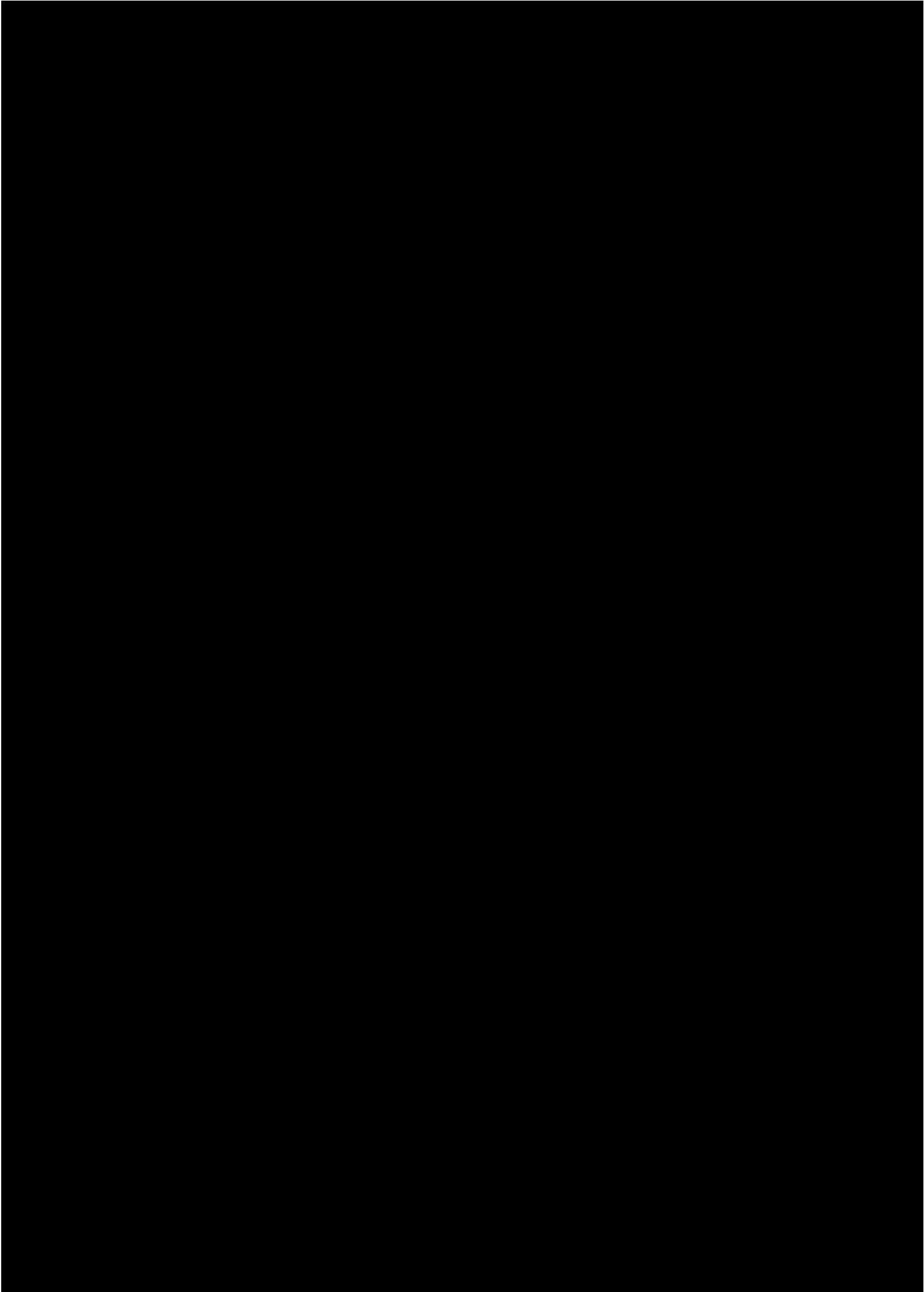
ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

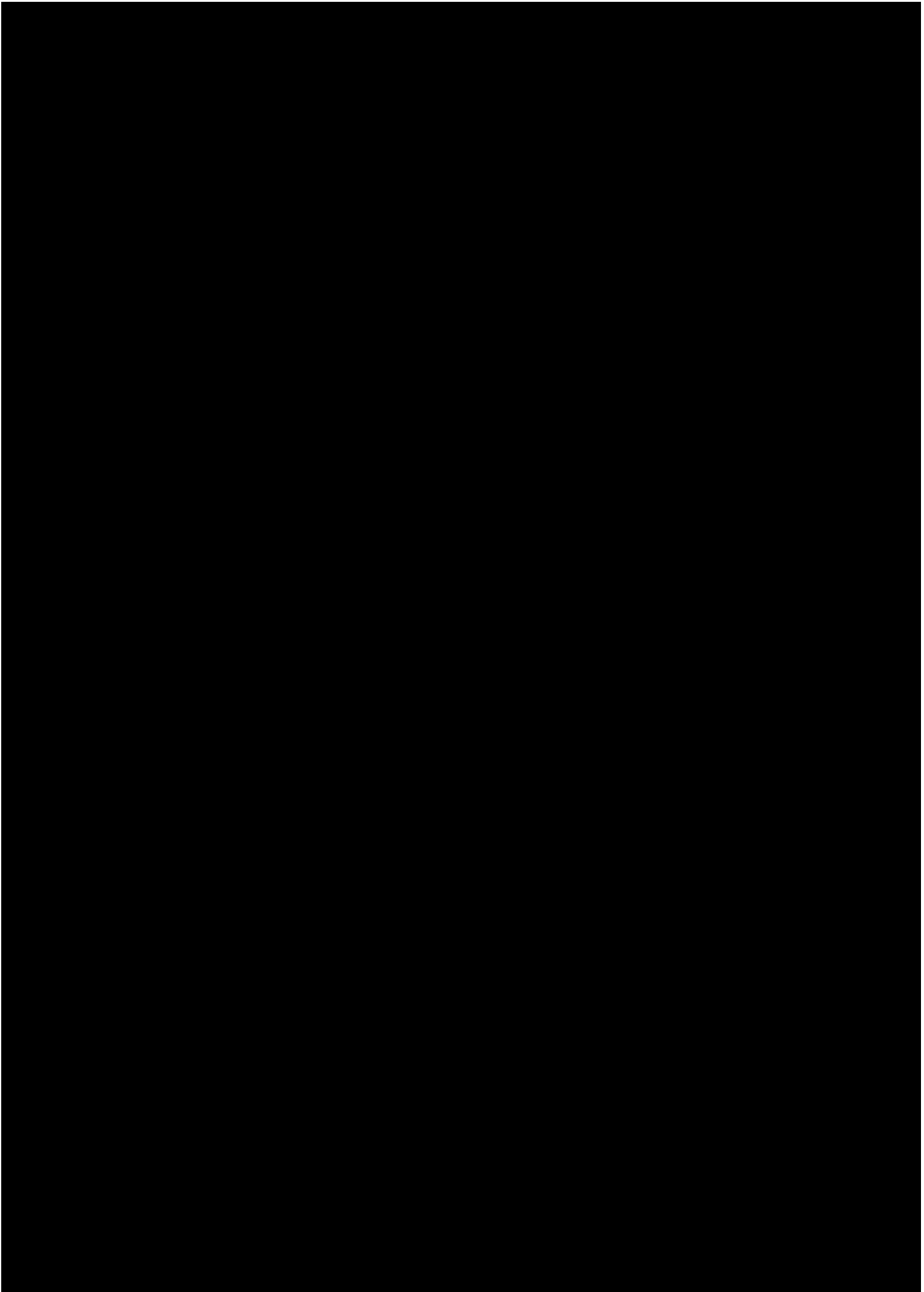
Respondents

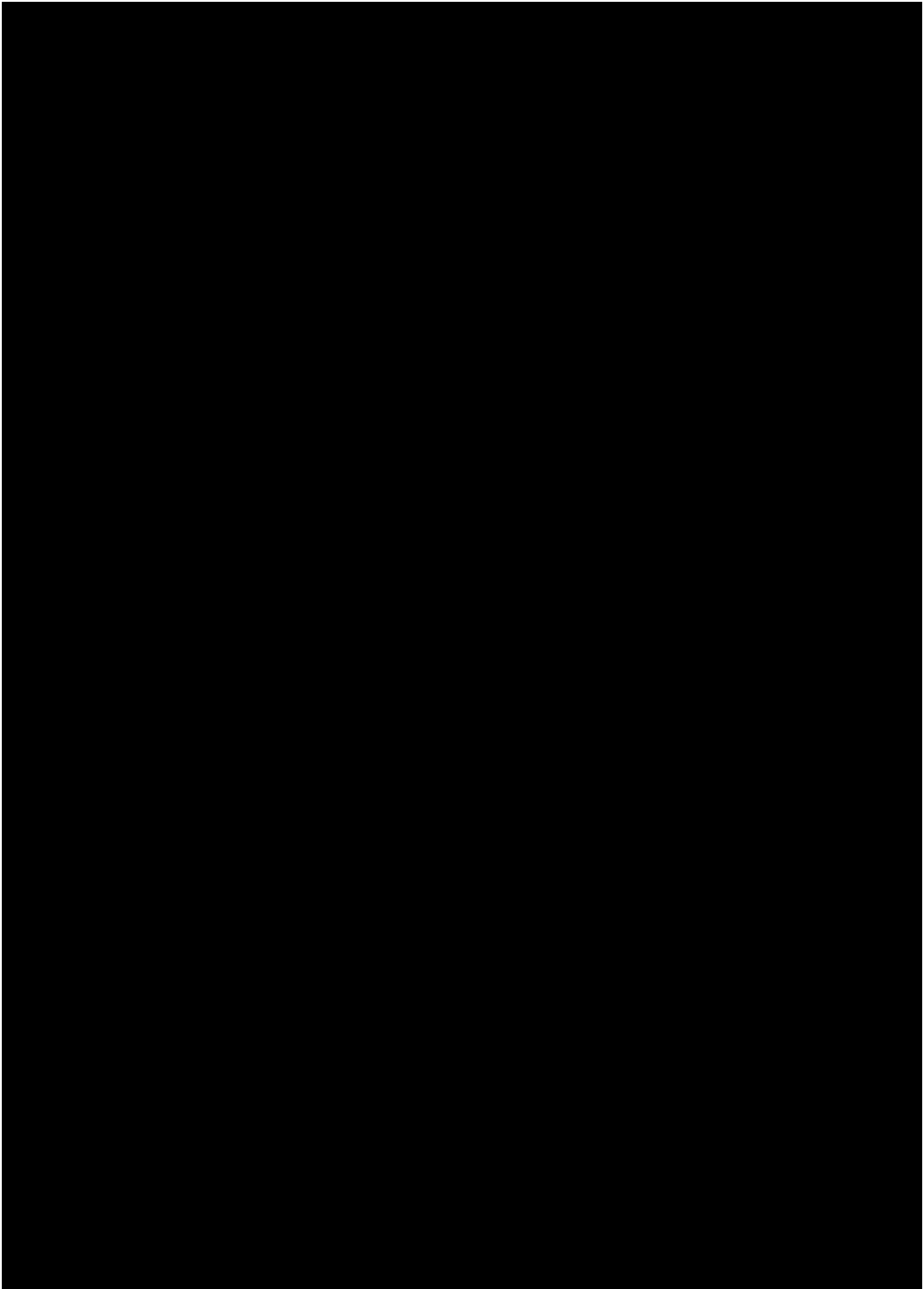
CONFIDENTIAL ANNEXURE AIB-51

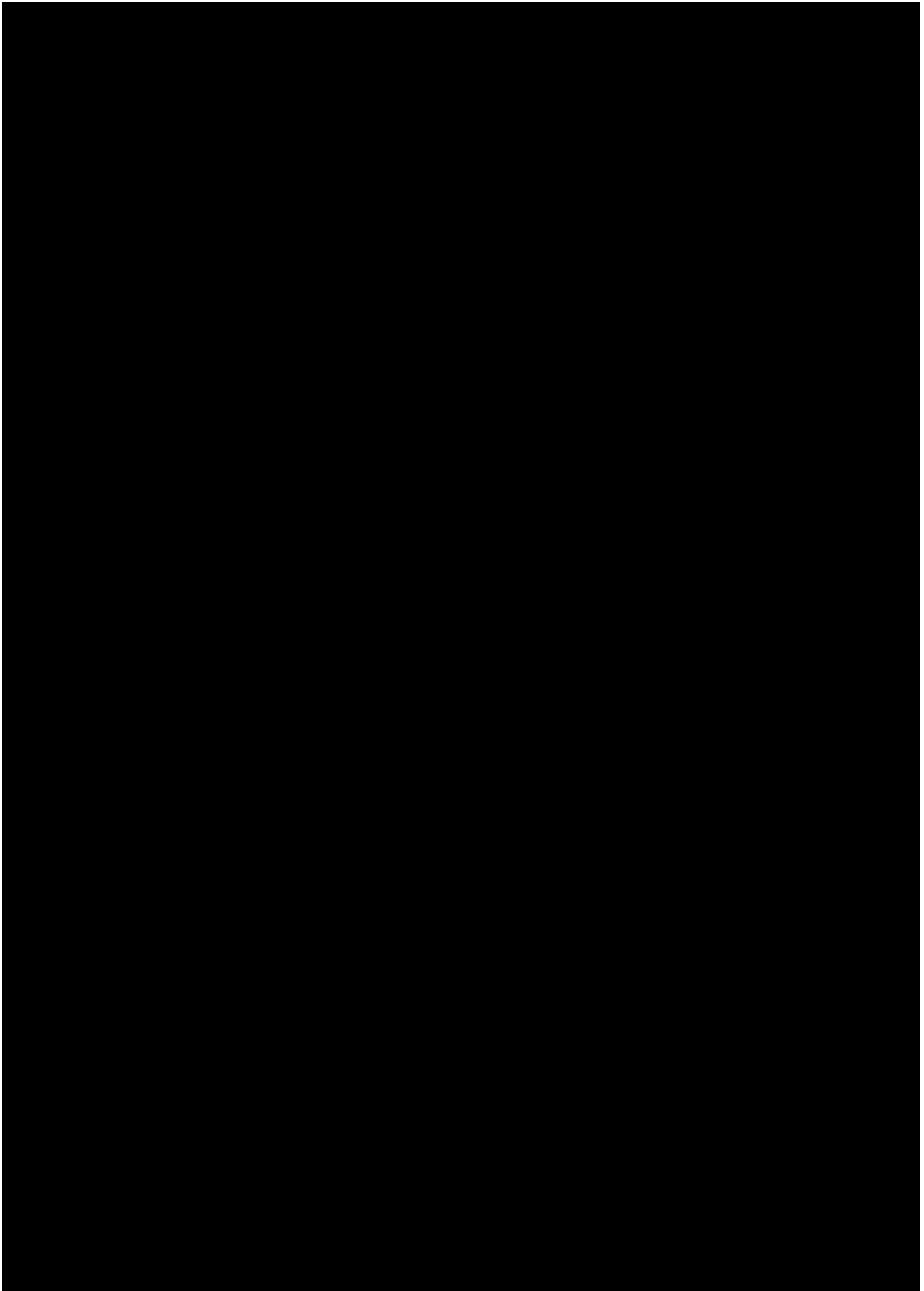
This is the confidential annexure marked **AIB-51** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

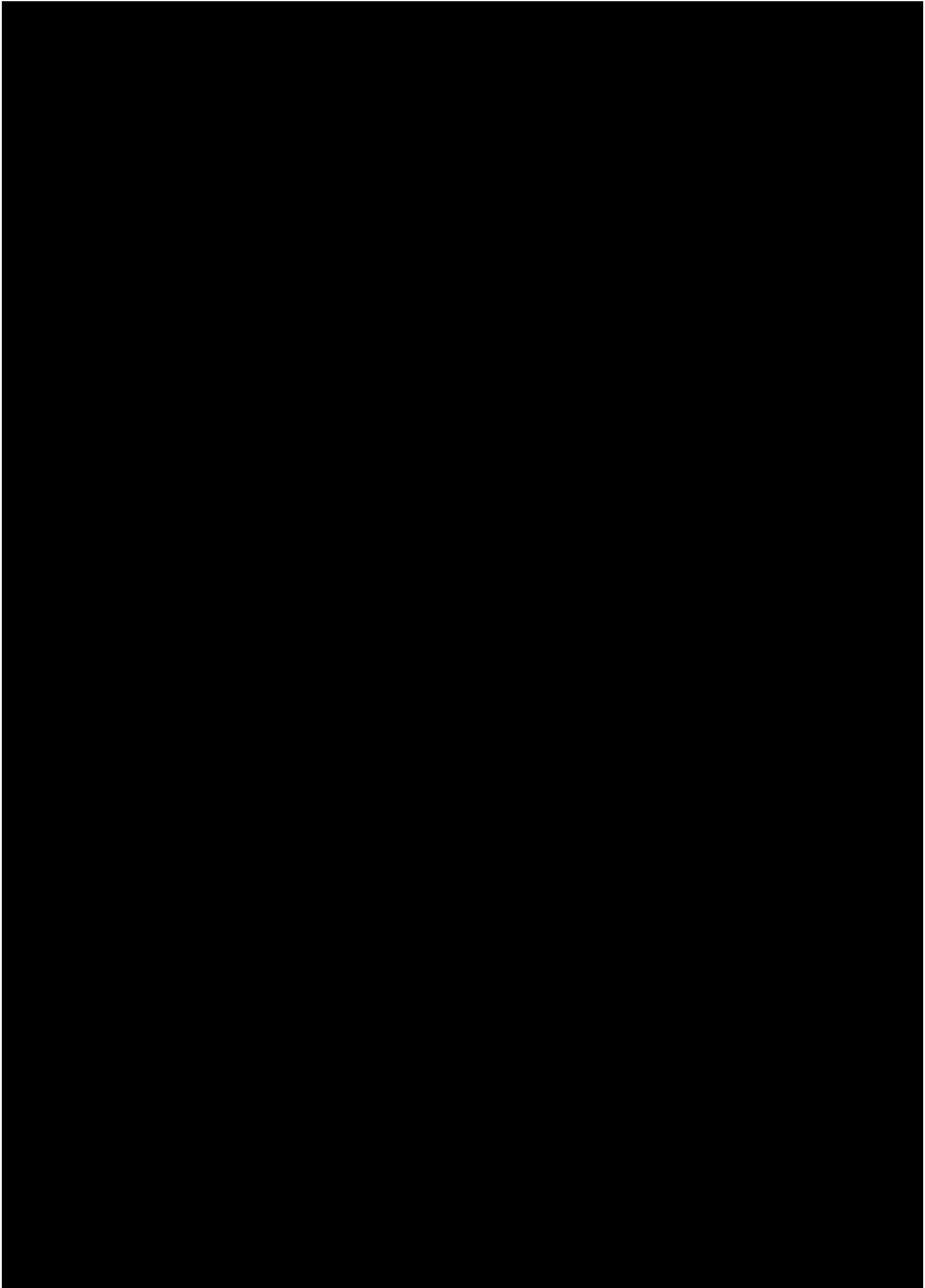
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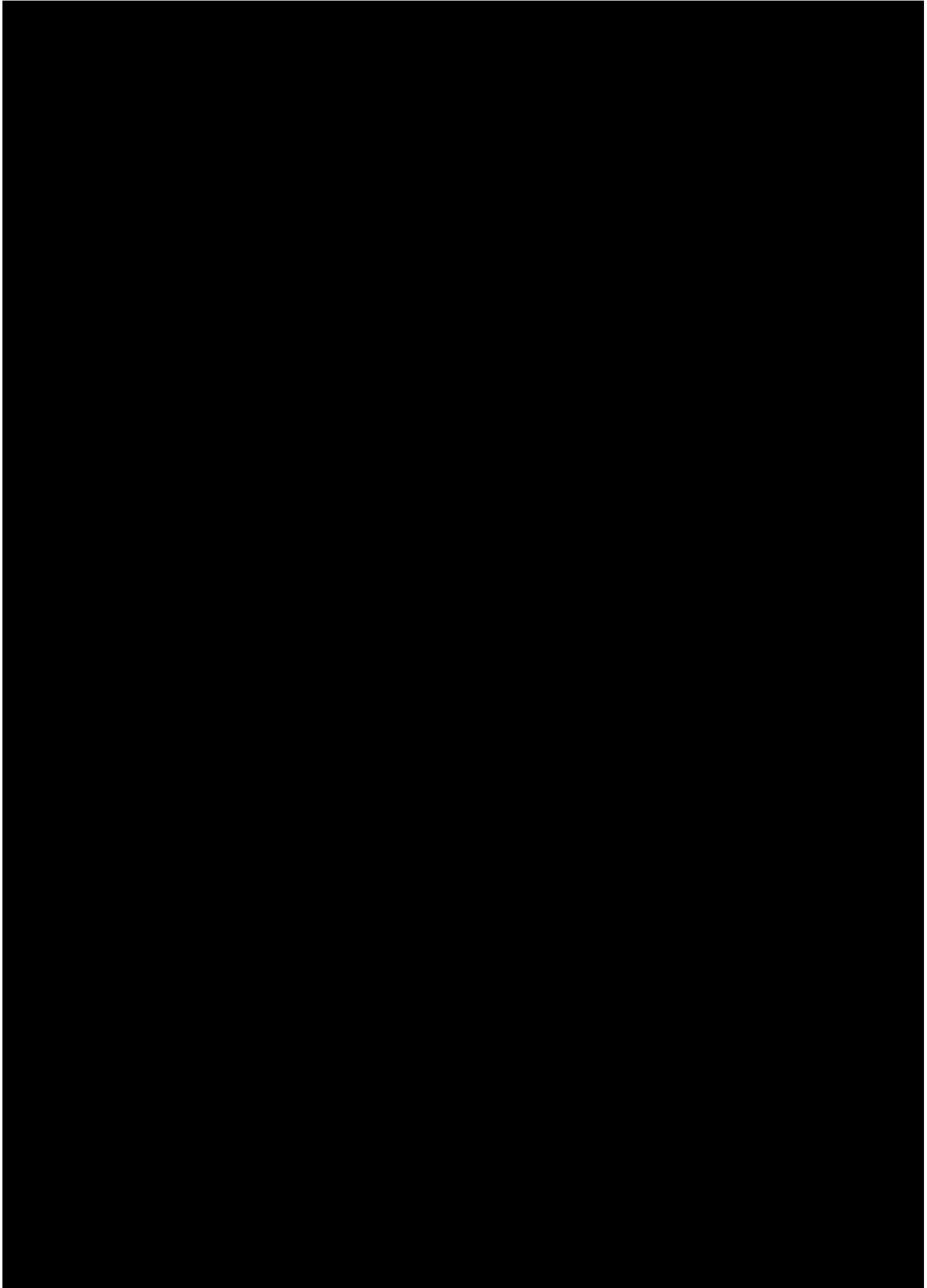


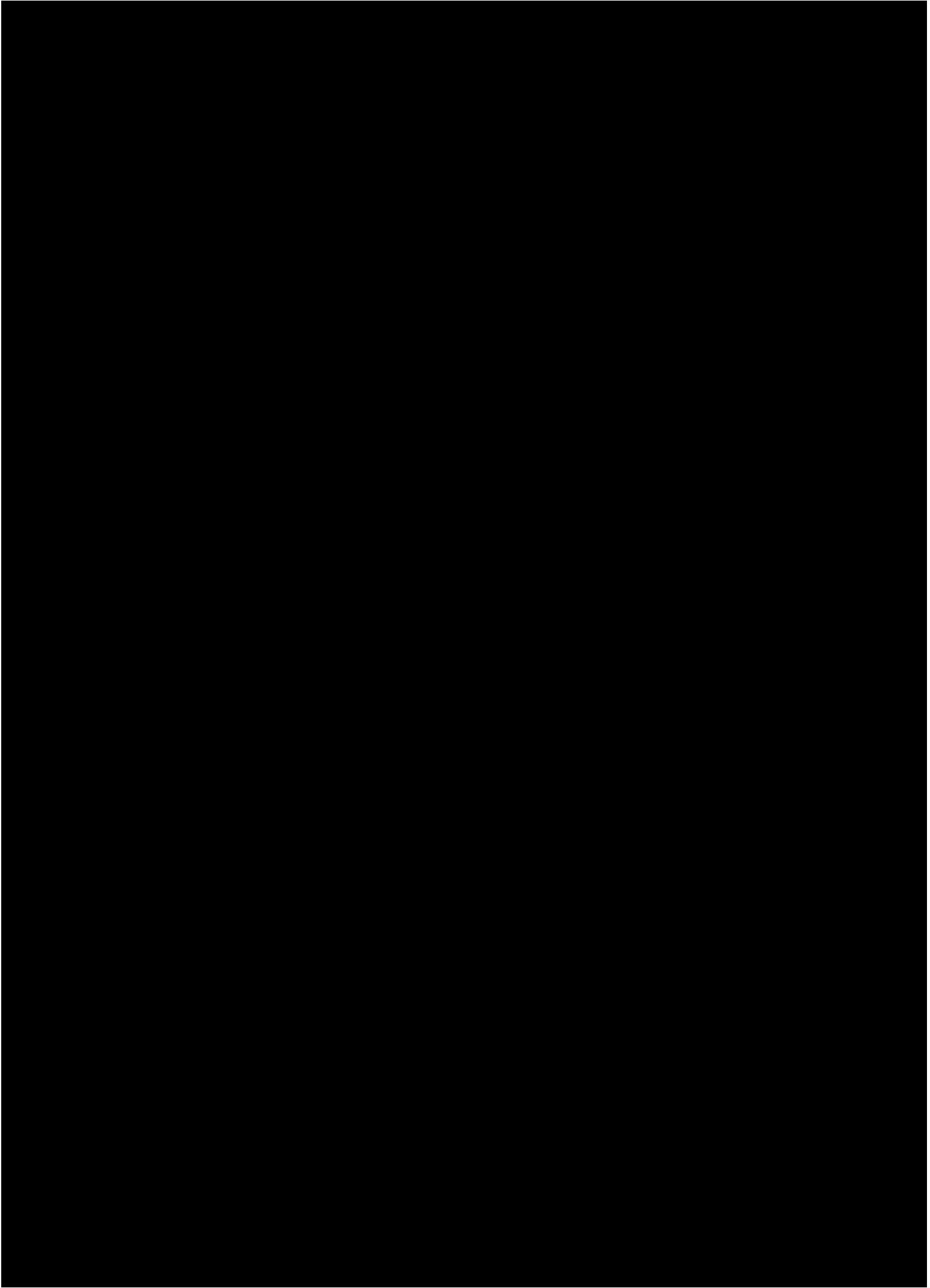


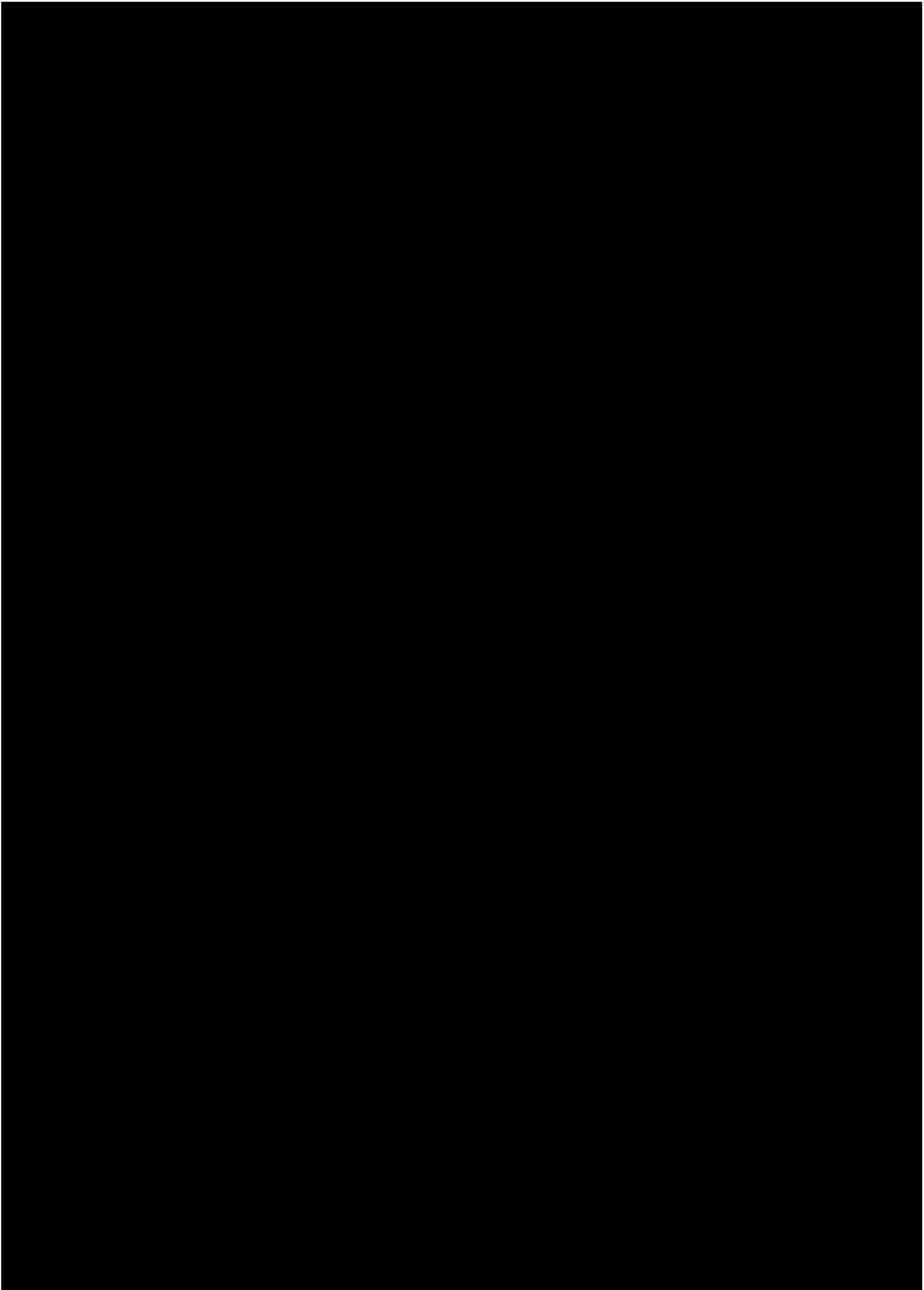


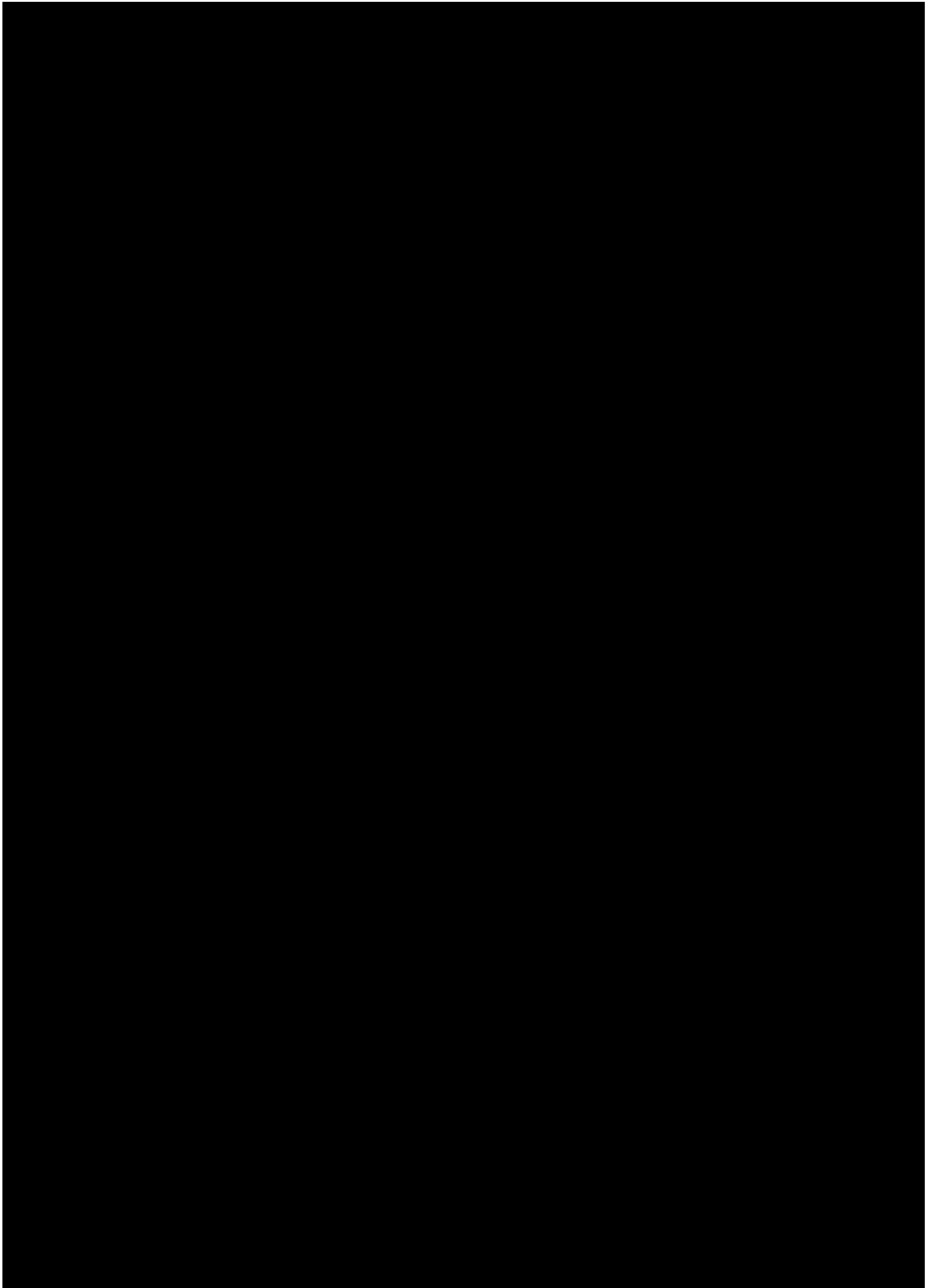












No. NSD527 of 2024

Federal Court of Australia
District Registry: New South Wales
Division: General

FORTESCUE LIMITED (ACN 002 594 872) and others

Applicants

ELEMENT ZERO PTY LIMITED (ACN 664 342 081) and others

Respondents

CONFIDENTIAL ANNEXURE AIB-52

This is the confidential annexure marked **AIB-52** produced and shown to **ANAND INDRAVADAN BHATT** at the time of affirming his affidavit on 1 August 2024.

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