

From: Schmaljohn, Connie (NIH/NIAID) [E]
Sent: Mon, 2 Mar 2020 18:53:04 +0000
To: Lane, Cliff (NIH/NIAID) [E]
Subject: FW: SARS animal models
Attachments: image001.png, image002.jpg, Roberts jvi.pdf, Lamirande delta E vaccine JV 2008.pdf, mcauliffe.pdf, ROBERTS-CV-FEB2020-FDA.pdf

Hi Cliff,

See info here from Kanta Subbarao. (b) (5)

[Redacted]

Your thoughts appreciated.

Connie

-----Original Message-----

From: Subbarao, Kanta <(b) (6)>
Sent: Sunday, March 1, 2020 1:56 AM
To: Schmaljohn, Connie (NIH/NIAID) [E] (b) (6)
Subject: SARS animal models

Dear Connie-

I just heard a few weeks ago that you are now working with NIAID and are head of the IRF! Congratulations!

I assume you are immersed in SARS-CoV-2 studies now. My lab developed a number of animal models for SARS in the early 2000s and I just wanted to pass along the suggestion of trying golden Syrian hamsters if you haven't already done so.

[Redacted] (b) (4)

One more note- Anjeanette Roberts was a staff scientist in my lab who led the SARS work and was excellent. She left bench science for a few years but wants to get back in. I have attached her cv in case you have any interest in bringing someone in to work on SARS-CoV-2.

I would be happy to chat if you are interested in any details of our experience with animal models.

Best wishes,

Kanta

[cid:image001.png@01D3588B.7A1FF710]<<http://www.influenzacentre.org/>>

Kanta Subbarao | Director

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WHO Collaborating Centre for Reference and Research on Influenza The Peter Doherty Institute for Infection and Immunity

792 Elizabeth Street | Melbourne | Victoria | Australia | 3000

www.influenzacentre.org<<http://www.influenzacentre.org/>> www.doherty.edu.au<<http://www.doherty.edu.au/>>

Professor, Department of Microbiology and Immunology, The University of Melbourne E

(b) (6).au<mailto:(b) (6)>

[cid:image002.jpg@01D3588B.7A1FF710]<<http://www.doherty.edu.au/>>



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MELBOURNE



The Royal
Melbourne
Hospital

A joint venture between The University of Melbourne and The Royal Melbourne Hospital

ANJEANETTE ROBERTS, PH.D.



(b) (6)

www.linkedin.com/in/anjeanetteroberts and www.researchgate.net/profile/Aj_Roberts2

PHD MOLECULAR BIOLOGIST/VIROLOGIST/PROJECT MANAGER

Accomplished cross-disciplinary thinker who drives excellence in complex projects while working independently and collaboratively with other scientists and educators. Proven communication and interpersonal skills, generating well-cited publications and engaging presentations in high-profile scientific meetings. Recognized as a decisive leader who ensures attention to detail and analytical rigor, provides vital insights into research strategy and problem solving, and maintains superlative quality standards. Exceptional academic qualifications: PhD in Cell and Molecular Biology from the University of Pennsylvania; post-doctoral fellowships at Yale and the NIH

SELECTED HIGHLIGHTS

- ❖ Recipient of prestigious awards including the NIH Merit Award and the CRI Postdoctoral Fellowship Award
- ❖ Led severe acute respiratory syndrome (SARS) research group of 6 diverse, high-performance professionals at the NIH in bio-safety level 2 and 3 studies of viral pathogenesis, vaccine development, and immuno-therapeutic pre-clinical research studies, evaluating pathogenicity, immunogenicity, and efficacy in mouse, hamster, and non-human primate models
- ❖ Cited for crucial input and insightful appraisal of information in the publication of 23 research manuscripts in refereed journals at the NIH; presented research findings in leading scientific meetings, including the 7th International Symposium on Positive-Strand RNA Viruses, San Francisco (2004)
- ❖ Guided and enabled data interpretation for 50+ SARS and influenza virus studies to influence direction for future studies; displayed outstanding quantitative acumen in handling statistical analysis
- ❖ Obtained and maintained TS security clearance for work with HHS Select Agents
- ❖ Excelled expectations at Yale as a post-doctoral research fellow; redirected and led laboratory research in areas of viral pathogenesis and pre-clinical studies for viral-vectored vaccines using vesicular stomatitis virus vectors targeting HIV-1, measles, influenza A (H1 and H5), human papilloma, and respiratory syncytial viruses in mouse, rabbit, and non-human primate models

CORE COMPETENCIES

- | | | |
|-------------------------------------|---------------------------------|---|
| ▪ Scientific Research & Development | ▪ Project Management | ▪ Scientific Publications/Presentations |
| ▪ Virology/Molecular Virology | ▪ Pre-clinical Vaccine Research | ▪ Oral and Written Communication |
| ▪ Molecular and Cell Biology | ▪ Experimental Design | ▪ Public Speaking |

PROFESSIONAL EXPERIENCE

REASONS TO BELIEVE (RTB) | COVINA, CA | 2015 – PRESENT

Research Scholar

- Exercise excellent communication skills and consummate professionalism in public speaking, writing, and blogging regarding the interface of current scientific research, science philosophy, and Christian thought
- Utilize in-depth knowledge of relevant topics and technical specifics to perform critical review of scientific literature in virology, molecular and cellular biology, comparative genomics, and immunology in coordination with five other staff scholars

RIVENDELL INSTITUTE AT YALE | NEW HAVEN, CT | 2013 – 2015

Visiting Fellow

- Orchestrated student, post-doctoral, and faculty discussion groups and panel discussions as a resident specialist, incorporating various discussion techniques to foster productive engagements
- Developed custom-tailored seminars, apologetics, and materials for scientists and non-scientists, maintaining clarity and concision to ensure achievement of the organization's mission

UNIVERSITY OF VIRGINIA | CHARLOTTESVILLE, VA | 2006 – 2013

Program Director Microbiology, Immunology & Infectious Disease Ph.D. Graduate Studies; Director of Graduate Studies and Assistant Professor of Graduate Education in Microbiology, Immunology, and Cancer Biology

- Managed educational seminars, workshops and career events, overseeing complex logistics and optimizing budget expenses
- Directed efficient recruiting efforts for four NIH-T32s (Cancer, Biodefense, Infectious Diseases, & Immunology), assessing previous initiatives and building new tactics to improve overall candidate pool quality
- Originated outstanding new courses/curriculum which directly aligned with university goals, and served as an instructor for general virology, viral pathogenesis, viral immunology, history and issues of biodefense, and emerging infectious diseases

**LABORATORY OF INFECTIOUS DISEASES, NIAID, NIH | BETHESDA, MD | 2003 – 2006****SARS Group Leader: Staff Scientist/Research Fellow**

- Managed stellar SARS research team completing 50+ projects re: preclinical viral immunopathology, vaccines, and prophylactics
- Helmed 50+ SARS-CoV BSL3, ABSL3 and BSL2 research projects which involved pre-clinical vaccine development, treatments, prophylaxis, pathogenesis and molecular virology in vitro and in animal models; handled budgets of up to \$300K and upheld precise record-keeping while using strong organizational skills and attention to detail
- Designated to handle institutional review of external SARS Task proposals for NIH competitive funding awards, representing up to \$3M in potential funding and significant advancements to the organization's mission
- Originated specialized assays, implementing state-of-the-art approaches to track effects in a high-stress environment
- Guided and enabled data interpretation for 50+ SARS and influenza virus studies, influencing direction of future studies
- Noted for crucial input and insightful appraisal of information in the publication of 23 research manuscripts in refereed journals; presented research findings in leading scientific meetings, including the 7th International Symposium on Positive-Strand RNA Viruses, San Francisco (2004) and Determinants of Host Resistance, Susceptibility or Immunopathology to Pathogens, Keystone Symposia (2006)

YALE UNIVERSITY | NEW HAVEN, CT | 1997 – 2001**Postdoctoral Research Fellow**

- Spearheaded superb proof-of-concept research studies for viral-vectored vaccines in animal models and received praise as the primary or significant contributor to 12 peer-reviewed research manuscripts and major contributing author to a critical review in Journal of Virology which has been cited 100+ times
- Coordinated with Yale investigators into additional viral systems as well as overseeing a shared multi-lab tissue culture facility; acted as the primary resource for the continued utilization of contemporary lab techniques
- Secured the highly-selective 3-year Cancer Research Institute Postdoctoral Fellow Awards [accepted] as well as a NRSA Postdoctoral Fellow Award [declined] through expert understanding of grant writing and proposal development

Additional Experience: HIV/AIDS Risks and Prevention: Technical Consultant and Public Health Lecturer, Global Resource: 2001 – 2003 / Manager and Technician, Molecular Biology Laboratory, University of Tulsa: 1990 – 1991 / Manager and Technician, Mobile Environmental Laboratory, CRC & Associates: 1990

INVITED TALKS

-
- "God saw that it was good, the problem of evil, and a scientifically informed theodicy," CATA interdisciplinary theology conference, Northeastern Seminary, Oct. 25, 2019
 - "The Frontline of Science: Genesis, Evolution and the Case for a Creator," Unbelievable LA, Costa Mesa, CA, Oct. 12, 2019
 - "God's Purposes Revealed in Science and Suffering," AMP Conference, Fullerton, CA, Mar. 9, 2019
 - "A Response to Dr. Jeff Hardin's Science and Christian Anthropology: Friends or Foes?" The Creation Project Dabar Conference at The Henry Center, TEDS, Deerfield, IL, Jun 2017
 - "An Evangelical Scientist Rescues Methodological Naturalism," Canadian and American Theological Association interdisciplinary theology conference, Northeastern Seminary, Rochester, NY, Oct. 2017
 - "Issues in Science and Faith," University of Florida (2019); Portland State University (2015)
 - Emerging Infectious Diseases, EID504, USUHS, Bethesda, Maryland (2009)
 - Discovery of SARS coronaviruses and SARS vaccines, RAMA and RADA – 3rd Joint National Conference, Washington, DC (2005)
 - Rodent models for the evaluation of SARS vaccines, antivirals, and immunotherapy. WHO Technical Meeting on SARS animal models, NIBSC, London, ENGLAND (2005)
 - A SARS-CoV disease model in aged BALB/c mice. Short Plenary Talk, The 7th International Symposium on Positive-Strand RNA Viruses, San Francisco, CA (2004)
 - Live attenuated recombinant VSVs demonstrate potential vaccine applications. St. Petersburg State Univ. and Biomedical Center for Research, St. Petersburg, RUSSIA (2001)
 - Live attenuated recombinant VSVs demonstrate potential vaccine applications. Academy of Sciences, Almaty, KAZAKHSTAN (2000)
 - An introduction to VSV and a system of generating recombinant VSVs. Kazakh State University, Almaty, KAZAKHSTAN (2000)
 - HIV, AIDS, and Drug Use. Convocation for Morals and Ethics, ISP, Irkutsk, RUSSIA (2000)

SELECTED PUBLICATIONS

- **Roberts, A.** An Evangelical Scientist Rescues Methodological Naturalism. *Canadian-American Theological Review* 2017; 6(2)
- Frieman M, Yount, B Agnihothram S, Page C, Donaldson E, **Roberts A**, Vogel L, Smock B, Scorpio D, Subbarao K, Baric R. Molecular Determinants of Severe Acute Respiratory Syndrome Coronavirus Pathogenesis and Virulence in Young and Aged Mouse Models of Human Disease. *J Virol.* 2012; 86(2):884-98.
- **Roberts A**, Lamirande EW, Vogel L, Baras B, Goossens G, Knott I, Chen J, Ward JM, Vassilev V, Subbarao K. Immunogenicity and protective efficacy in mice and hamsters for a –propiolactone inactivated whole virus SARS-CoV vaccine. *Viral Immunol.* 2010; 23(5):509-19.
- **Roberts A**, Deming D, Paddock CD, Cheng A, Yount B, Vogel L, Herman BD, Sheahan T, Heise M, Genrich GL, Zaki SR, Baric R, Subbarao K. A mouse-adapted SARS-coronavirus causes disease and mortality in BALB/c mice. *PLoS Pathog.* 2007;3(1):e5.
- **Roberts A**, Lamirande EW, Vogel L, Jackson JP, Paddock CD, Guarner J, Zaki SR, Sheahan T, Baric R, Subbarao K. Animal models and vaccines for SARS-CoV infection. *Virus Research* 2008; 133(1):20-32. Epub 2007 May 10.
- Zhu Z, Chakraborti S, He Y, Roberts A, Sheahan T, Xiao X, Hensley LE, Prabakaran P, Rockx B, Sidorov IA, Corti D, Vogel L, Feng Y, Kim JO, Wang LF, Baric R, Lanzavecchia A, Curtis KM, Nabel GJ, Subbarao K, Jiang S, Dimitrov DS. Potent cross-reactive neutralization of SARS coronavirus isolates by human monoclonal antibodies. *Proc Natl Acad Sci U S A* 2007; 104(29):12123-8. Epub 2007 Jul 9.
- **Roberts A**, Subbarao K. Animal models for SARS. *Adv Exp Med Biol.* 2006; 581:463-71.
- **Roberts A**, Thomas WD, Guarner J, Lamirande EW, Babcock GJ, Greenough TC, Vogel L, Hayes N, Sullivan JL, Zaki S, Subbarao K, Ambrosino D. Therapy with a severe acute respiratory syndrome-associated coronavirus-neutralizing human monoclonal antibody reduces disease severity and viral burden in golden Syrian hamsters *J Infect Dis* 2006; 193(5) 685-92.
- **Roberts A**, Wood J, Subbarao K, Ferguson M, Wood D, Cherian T. Animal models and antibody assays for evaluating candidate SARS vaccines: Summary of a WHO technical meeting 25-26 August 2005, London, UK. *Vaccine* 2006; 24(49-50):7056-65.
- Subbarao K, **Roberts A**. Is there an ideal animal model for SARS? Opinion, *Trends in Micro.* 2006; 14(7) 299-303.
- Greenough TC, Babcock GJ, **Roberts A**, Hernandez HJ, Thomas WD, Coccia JA, Graziano RF, Srinivasan M, Lowy I, Finberg R, Subbarao K, Vogel L, Somasundaran M, Luzuriaga K, Sullivan JL, Ambrosino DM. Development and characterization of a severe acute respiratory syndrome-associated coronavirus-neutralizing human monoclonal antibody that provides effective immunoprophylaxis in mice. *J Infect Dis* 2005; 191(4)507-14.
- **Roberts A**, Vogel L, Guarner J, Hayes N, Murphy B, Zaki S, Subbarao K. Severe acute respiratory syndrome coronavirus infection of golden Syrian hamsters. *J Virol* 2004;79(1)503-511.
- **Roberts A**, Paddock C, Vogel L, Butler E, Zaki S, Subbarao K. Aged BALB/c mice as a model for increased severity of severe acute respiratory syndrome in elderly humans. *J Virol* 2005; 79(9)5833-8.
- **Roberts A**, Reuter JD, Wilson J, Baldwin S, Rose JK. Complete protection from papillomavirus challenge after a single vaccination with a vesicular stomatitis virus vector expressing high levels of L1 protein. *J Virol* 2004;78(6):3196-3199.
- Yang ZY, Kong WP, Huang Y, **Roberts A**, Murphy BR, Subbarao K, Nabel GJ. A DNA vaccine induces SARS coronavirus neutralization and protective immunity in mice. *Nature* 2004;428(6982):561-564.
- Reuter JD, Vivas-Gonzalez BE, Gomez D, Wilson J, Brandsma JL, Greenstone HL, Rose JK, **Roberts A**. Intranasal vaccination with a recombinant vesicular stomatitis virus expressing cottontail rabbit papilloma virus L1 protein provides complete protection against papillomavirus-induced disease. *J Virol* 2002;76(17):8900-8909.
- Rose NF, Marx PA, Luckay A, Nixon DF, Moretto WJ, Donahoe SM, Montefiori D, **Roberts A**, Buonocore L, Rose JK. An effective AIDS vaccine based on live attenuated vesicular stomatitis virus recombinants. *Cell* 2001;106:539-549.
- **Roberts A**, Buonocore L, Price R, Forman J, Rose JK. Attenuated vesicular stomatitis viruses as vaccine vectors. *J Virol* 1999;73(5):3723-3732.
- **Roberts A**, Rose JK. Recovery of negative-strand RNA viruses from plasmid DNAs: a positive approach revitalizes a negative field. *Virology* 1998;247:1-6.
- **Roberts A**, Kretzschmar E, Perkins AS, Forman J, Price R, Buonocore L, Kawaoka Y, Rose JK. Vaccination with a recombinant VSV expressing an influenza hemagglutinin provides complete protection from influenza virus challenge. *J Virol* 1998;72(6):4704-4711.

SELECTED NATIONAL & INTERNATIONAL SCIENTIFIC PRESENTATIONS AND ABSTRACTS

- **Roberts A**, Cheng A, Herman BD, Yount B, Deming D, Paddock C, Vogel L, Zaki S, Baric R, Subbarao K. Adaptation of SARS-CoV in BALB/c mice: Exploring factors contributing to SARS-CoV pathogenesis. [Abstract J2-218] Keystone Symposium: (J2) Determinants of Host Resistance, Susceptibility or Immunopathology to Pathogens: Integrating Knowledge from Experimental Models to Human Disease. Keystone, Colorado, January 6 - 11, 2006
- **Roberts A**, Lamirande EW, Thomas WD, Guarner J, Babcock GJ, Vogel L, Greenough TC, Jackson J, Hayes N, Sullivan JL, Zaki S, Subbarao K, Ambrosino DM. Immunotherapy with SARS-specific human MAb201 protects from SARS viral replication and disease severity in a golden Syrian hamster model. [S11-3] Xth International Nidovirus Symposium, Colorado Springs, Colorado, June 29, 2005.
- **Roberts A**, Vogel L, Subbarao K. STAT1 knockout mice develop disease following intranasal administration of SARS coronavirus (SARS CoV) demonstrating a role for interferons in viral clearance and recovery. [W54-8] American Society for Virology 23rd Annual Meeting, Montreal, Quebec, Canada, July 9-14, 2004.
- **Roberts A**, Rose N, Buonocore L, Reuter J, Marx P, Rose JK. Live attenuated recombinant VSVs demonstrate potential vaccine applications. Sixth National Symposium Basic Aspects of Vaccines, Bethesda, Maryland, May 3-5, 2000. [Abstract B-14]
- Rose N, **Roberts A**, Buonocore L, Rose JK. Envelope exchange vectors based on VSV. Keystone Symposia – Cell Biology of Virus Entry, Replication and Pathogenesis, Taos, New Mexico, February 29 – March 5, 2000. [Abstract 315]
- **Roberts A**, Buonocore L, Rose JK. Development of multiple vaccine vectors based on recombinant VSVs. [W40-2] American Society for Virology 18th Annual Meeting, Amherst, Massachusetts. July 10-14, 1999.
- **Roberts A**, Buonocore L, Price R, Forman J, Rose JK. Recombinant vesicular stomatitis viruses expressing influenza proteins: models for attenuated vaccine vectors. [W9-6] American Society for Virology 17th Annual Meeting, Vancouver, British Columbia, Canada, July 11-15, 1998.

EDUCATION

University of Pennsylvania – *Doctor of Philosophy – Cell and Molecular Biology (Virology) (GPA: 3.9)*

Biola University: *Master of Arts – Christian Apologetics (GPA: 4.0, Summa Cum Laude)*

University of Tulsa – *Bachelor of Science – Chemistry (Minor Options: Biology & Russian) (GPA: 3.5, Cum Laude)*

Continuing Education: Bioinformatics workshop; J. Craig Venter Institute

ADDITIONAL CREDENTIALS

TECHNICAL SKILLS	<p>Protein expression and purification, reverse genetic engineering of viruses, DNA and RNA purification, molecular cloning, RT-PCR, PCR, ELISA, confocal, light, and EM microscopy, gel-electrophoresis, cell culture, viral culture, virus purification, cell-based assays, Southern, Northern and Western blotting, tissue culture, bacterial transformations and eukaryotic transfections, baculovirus expression systems, primer design and synthesis, DNA sequencing, analysis, and genome annotation, calibration and programming of laboratory equipment, literature review, experimental design, troubleshooting experimental outcomes, data interpretation, statistical analyses; familiarity with multiplexing and next-generation sequencing, familiarity with FDA/CFR guidelines, GMP regulations and quality compliance requirements, wet-lab assays, gas-chromatography, high-performance liquid chromatography, mass spectroscopy, nuclear magnetic resonance assays, atomic absorption assays, written communication, oral communication, SOPs, IRBs, animal use protocols, GraphPad Prism, StatView, Microsoft Office Suite, MAC Office Suite</p>
HONORS & AWARDS	<ul style="list-style-type: none"> ▪ NIH Merit Award (2005) ▪ Patent Application: US 11/475,237 Trimeric spike protein as SARS virus vaccine ▪ Yale Medical School Council (2000) ▪ Cancer Research Institute Postdoctoral Fellowship Award (3Y:1998 - 2001) ▪ NIH/NRSA Postdoctoral Fellowship Award (Yale; declined award) ▪ NIH Post-doctoral T32 Trainee in Virology (Yale) ▪ American Society for Virology (ASV) post-doctoral and pre-doctoral travel awards ▪ Nominated for Joel M. Dalrymple Memorial Award (1996) ▪ NIH Pre-Doctoral T32 Trainee in Molecular Biology/Virology (Penn) ▪ NCAA collegiate scholarship athlete

**ORGANIZATIONS**

- Canadian-American Theological Association, Full Member (2018-9)
- National Apologetics Leadership Group, Member (2016-2019)
- Christian Scientific Society, Full Member (2015-2019)
- Evangelical Philosophical Society, Student Member (2013-2015); Full Member (2017-9)
- American Society for Virology, Associate Member 1995-2003; Full Member 2004-2012
- American Chemical Society, student member, Vice President (1985-87, 1987-88)
- National Dean's List (1988)

REFEREED MANUSCRIPTS

- PLoS journals
 - Virology
- Journal of Virology
 - Comparative Medicine

COMMUNITY ENGAGEMENT

- Lay eucharistic minister Grace Episcopal and St John's Episcopal churches
- Alternate delegate to annual diocesan convention

From: Lane, Cliff (NIH/NIAID) [E]
Sent: Sun, 23 Feb 2020 00:38:31 +0800
To: Dr VAN KERKHOVE, Maria
Cc: (b) (6)
Subject: Re: Draft report 22 Feb 1654 version; revised by research group
Attachments: WHO-China Joint Mission - DRAFT REPORT V1.1research.docx

Updated draft attached.

From: Maria VAN KERKHOVE <(b) (6)>
Date: Saturday, February 22, 2020 at 4:59 PM
To: Alexander SEMENOV <(b) (6)> "Chikwe IHEKWEAZU
(b) (6) <(b) (6)> "Lane, Cliff (NIH/NIAID)
[E]" <(b) (6)> "Dale FISHER (b) (6) <(b) (6)> "Dr
Hitoshi TAKAHASHI (b) (6)" <(b) (6) gmleung <(b) (6)
"LEE Jong-Koo (b) (6) <(b) (6) "Natalia PSHENICHNAYA
(b) (6) <(b) (6) "Tim ECKMANNS
(b) (6) <(b) (6) "Zhou, Weigong (CDC/DDID/NCIRD/ID)"
<(b) (6) "Weigong ZHOU (b) (6) <(b) (6) "XING, Jun"
<(b) (6)
Cc: Bruce Aylward <(b) (6)>
Subject: Draft report 22 Feb 1654 version

Dear colleagues,

Thank you for the tremendous work in drafting this together with our colleagues from China. It was a fascinating and productive day. Jun, can you please share this word document with Chinese colleagues?

As discussed, please use this version to update your technical sections (the narrative) adding in the discussed recommended text/tables/stats/figures. Please also revise your technical recommendations.

I look forward to receiving your updated versions by 2200 tonight.

Thank you!

Maria

Draft outline v1

WHO-China Joint Mission on COVID-19
Draft Report

(b) (5)

From: Dr VAN KERKHOVE, Maria
Sent: Sat, 22 Feb 2020 08:56:57 +0000
To: Alexander SEMENOV ((b) (6) Chikwe IHEKWEAZU ((b) (6) Lane, Cliff (NIH/NIAID) [E]; Dale FISHER ((b) (6) Dr Hitoshi TAKAHASHI ((b) (6));gmleung;LEE Jong-Koo ((b) (6) Natalia PSHENICHNAYA ((b) (6) Tim ECKMANN ((b) (6) Zhou, Weigong (CDC/DDID/NCIRD/ID);Weigong ZHOU ((b) (6) XING, Jun
Cc: AYLWARD, Raymond Bruce J.
Subject: Draft report 22 Feb 1654 version
Attachments: WHO-China Joint Mission - DRAFT REPORT V1.1.docx

Dear colleagues,

Thank you for the tremendous work in drafting this together with our colleagues from China. It was a fascinating and productive day. Jun, can you please share this word document with Chinese colleagues?

As discussed, please use this version to update your technical sections (the narrative) adding in the discussed recommended text/tables/stats/figures. Please also revise your technical recommendations.

I look forward to receiving your updated versions by 2200 tonight.

Thank you!

Maria

Draft outline v1

WHO-China Joint Mission on COVID-19
Draft Report

(b) (5)

Draft outline v1

(b) (5)

From: Lane, Cliff (NIH/NIAID) [E]
Sent: Sat, 15 Feb 2020 22:39:30 +0000
To: Dodd, Lori (NIH/NIAID) [E]; Beigel, John (NIH) [E]; Walker, Robert (OS/ASPR/BARDA); Imamichi, Hiromi (NIH) [E]; Davey, Richard (NIH/NIAID) [E]; Jim Neaton
Cc: Marston, Hilary (NIH/NIAID) [E]
Subject: Fwd: Informal WHO mtg report
Attachments: WHO research forum on nCoV 2.11-12.2020 - informal mtg report.docx, ATT00001.htm

FYI - Hilary has generated the attached summary of the recent Geneva meeting Please do not distribute further without permission from Hilary ((copied)
Cliff

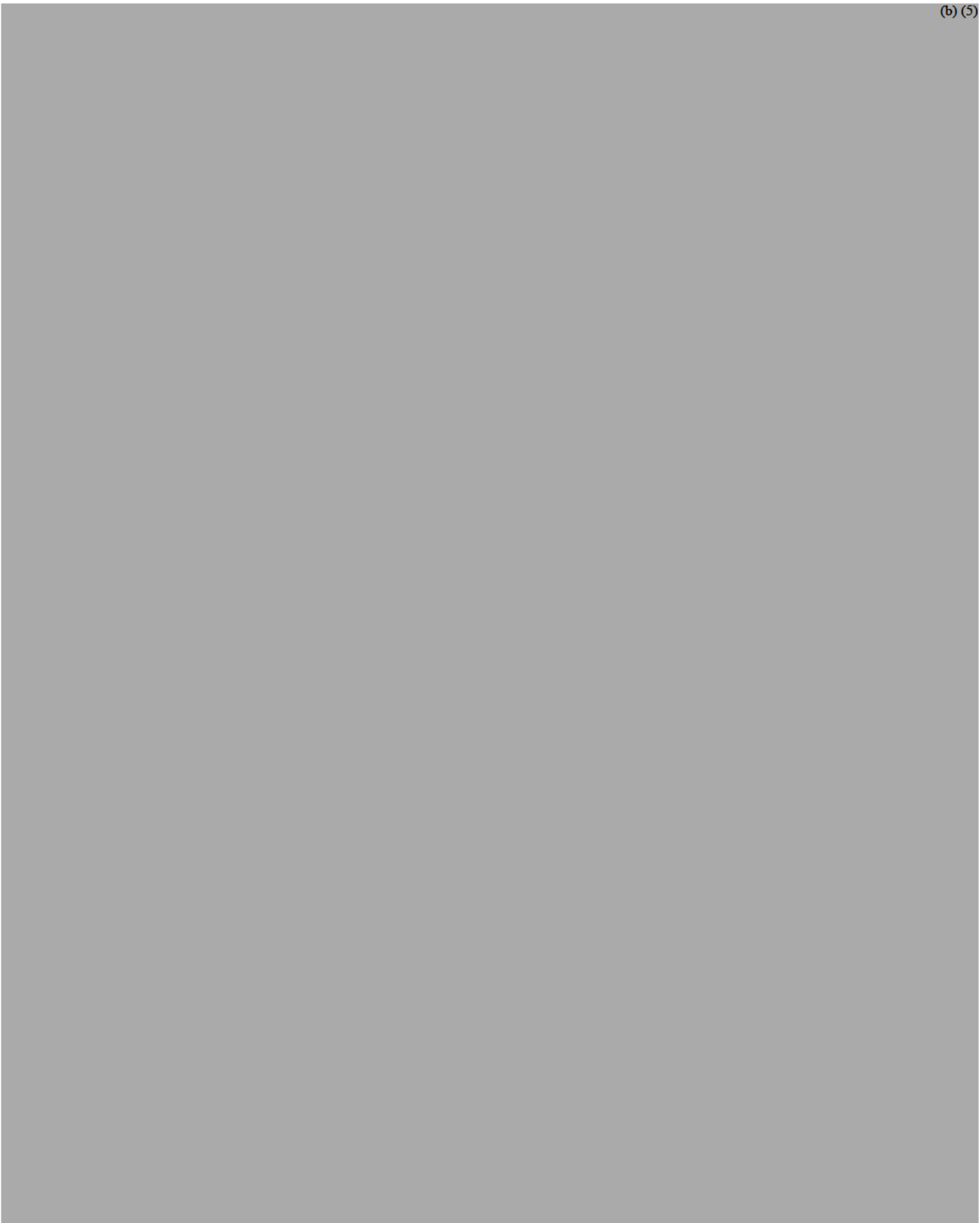
Begin forwarded message:

From: "Marston, Hilary (NIH/NIAID) [E]" <(b) (6)>
Date: February 16, 2020 at 2:36:16 AM GMT+8
To: "Fauci, Anthony (NIH/NIAID) [E]" <(b) (6)>
Cc: NIAID OD AM <(b) (6)> "Handley, Gray (NIH/NIAID) [E]" <(b) (6)>
Subject: Informal WHO mtg report

My WHO meeting report is attached. Summary below. Also the WHO rapporteurs put out their formal draft report at this link: https://www.who.int/blueprint/priority-diseases/key-action/Global_Research_Forum_FINAL_VERSION_for_web_14_feb_2020.pdf?ua=1

-h

(b) (5)



DRAFT - FOUO

Informal meeting report: WHO Global research and innovation forum: towards a research roadmap – February 11-12, 2020

(b) (5)



From: Handley, Gray (NIH/NIAID) [E]
Sent: Fri, 14 Feb 2020 19:12:53 +0000
To: Lane, Cliff (NIH/NIAID) [E]
Cc: Bernabe, Gayle (NIH/NIAID) [E];Dominique, Joyelle (NIH/NIAID) [E];Chen, Ping (NIH/NIAID) [E]
Subject: China Background
Attachments: Chinese Embassy Visit to NIAID brief summary_updated draft 02122020.docx, 2020-02-07 nCoV Update for FC.docx, List of Key Contacts in China.docx, China Page 2 14 2020.docx

Cliff:

Although we may send a little more, attached here are the following:

- Short list of contacts in China (we will be adding to this list the names of key Chinese contacts you may come across during the mission)
- China country page (summary for NIAID only)
- Summary of Feb. 7 meeting with Chinese embassy (these individuals helped facilitate your visa issuance)
- 2019-nCoV (COVID-19) summary prepared for FSC on Feb. 6 (you may have a more recent version of this)

Note that Mr. Wan from the Chinese Embassy called this morning to reconfirm that their embassy in Tokyo will issue your visa. He has been incredibly helpful in facilitating this.

I trust you have received the WHO briefing package. They promised also to provide info about who and how you would be met at airport and transported to your hotel.

Hope you got at least a little sleep.

Let me know if you need anything else.

Gray

**Chinese Embassy Visit to NIAID
February 7, 2020; 10-11 a.m.
5601 Fishers Lane, Room 3F-100**

Meeting Notes

Delegation from Chinese Embassy:

- Mr. Futao Chen, S&T Minister Counsellor
- Mr. Zhongcheng Wang, S&T Counsellor
- Mr. Jiangrui Chen, S&T Second Secretary
- Mr. Mai Wan, S&T Counsellor Attaché

NIAID Participants

In room

- Mr. Gray Handley - Associate Director for International Research Affairs
- Dr. John Beigel - Associate Director for Clinical Research, Division of Microbiology and Infectious Diseases (DMID)
- Dr. Alan Embry - Chief, Respiratory Diseases Branch, DMID
- Ms. Gayle Bernabe - Regional Officer, Office of Global Research (OGR)
- Dr. Ping Chen - International Health Specialist, OGR
- Dr. Nancy Touchette - Health Research Program and Policy Analyst, OGR

On phone

- Dr. Hilary Marston - Medical Officer/Policy Advisor, Office of the Chief of Staff
- Dr. Karin Bok- Senior Advisor, Vaccine Development, Vaccine Research Center
- Dr. Nicholas Bushar - Chief, Policy, Planning and Reporting Section; Office of Strategic Planning, Initiative Development, and Analysis
- Dr. Vincent Munster, Senior Investigator, Viral Ecology Unit, Rocky Mountain Laboratories
- Han Kan, Office of Global Affairs, HHS
- Dr. Christine Sizemore, Director of International Relations, Fogarty International Center
- Ms. Joyelle Dominique, Acting Director, OGR

Research priorities for China:

(b) (5)

NIAID Research in Progress

(b) (5)





List of Key Contacts in China

U.S.-Embassy in Beijing

Address: No. 55 An Jia Lou Lu 100600, Beijing; Tel: (b) (6)

- (b) (6); Tel: (b) (6); Mobile: (b) (6) – HHS Health Attaché
- RJ Simmonds (b) (6) – U.S.-CDC
- American Citizen Services in Beijing (b) (6) Emergency Contact Number: (b) (6)

China CDC

Address: 55 Changbai Road Changping District ,Beijing

- George Gao (b) (6) (b) (6) – Director-General

National Natural Science Foundation of China (NSFC)

Address: 83 Shuangqing Road, Haidian District, Beijing 100085

- Xiuping Liu (b) (6) – Division Director, Division of American and Australasian Affairs, Bureau of International Cooperation

From: Higgs, Elizabeth (NIH/NIAID) [E]
Sent: Thu, 16 Jan 2020 18:59:54 +0000
To: Lane, Cliff (NIH/NIAID) [E]
Cc: McNay, Laura (NIH/NIAID) [E]
Subject: Fwd: Proposals for State Department funding (b) (5)
[REDACTED]
Attachments: (b) (5).pdf, ATT00001.htm, (b) (5).pdf, ATT00002.htm

Cliff FYI, [REDACTED] (b) (5)
[REDACTED]

Sent from my iPhone

Begin forwarded message:

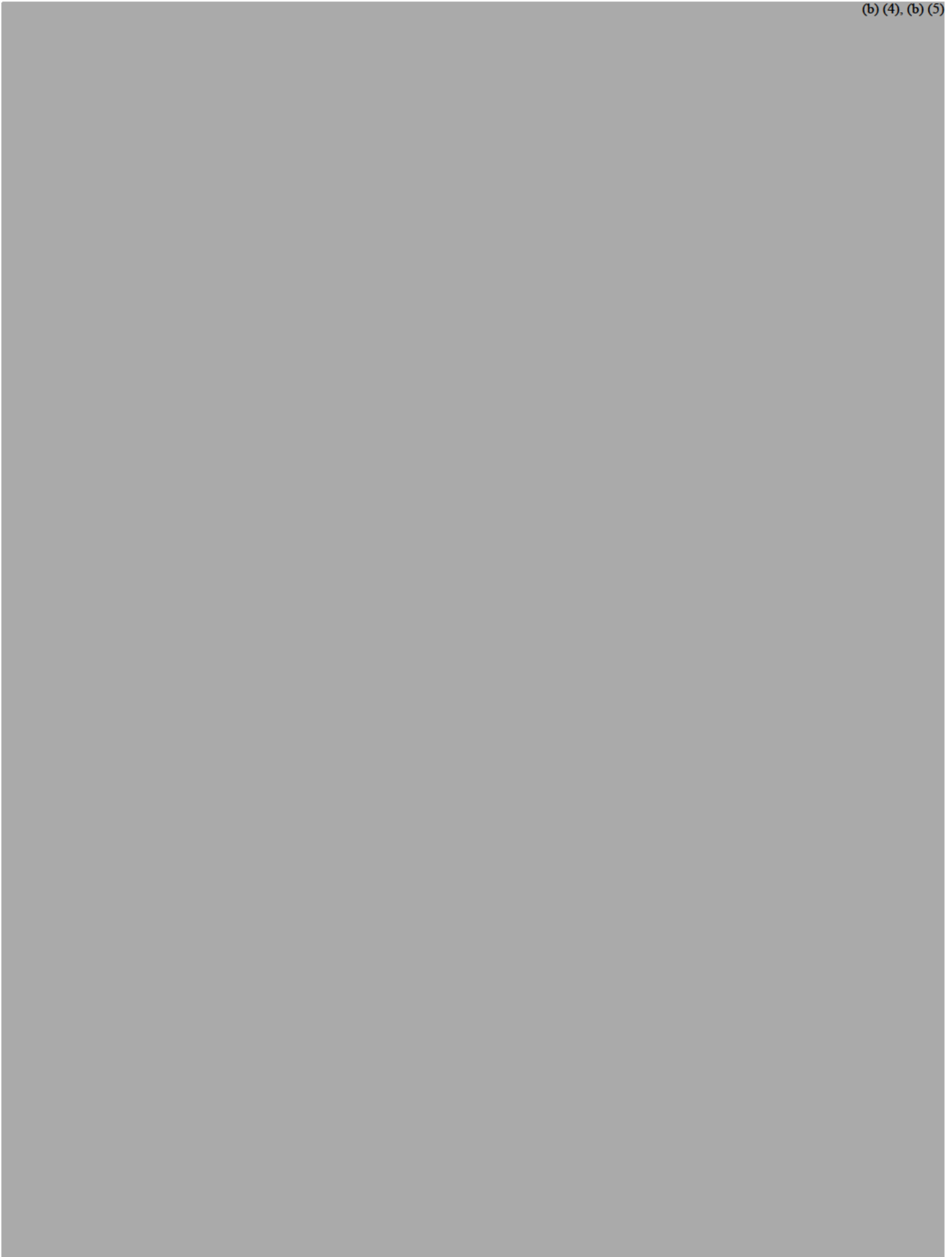
From: "Handley, Gray (NIH/NIAID) [E]" <(b) (6)>
Date: January 15, 2020 at 9:24:19 PM EST
To: "McNay, Laura (NIH/NIAID) [E]" <(b) (6)> "Higgs, Elizabeth (NIH/NIAID) [E]" <(b) (6)>
Subject: Proposals for State Department funding (b) (5)
[REDACTED]

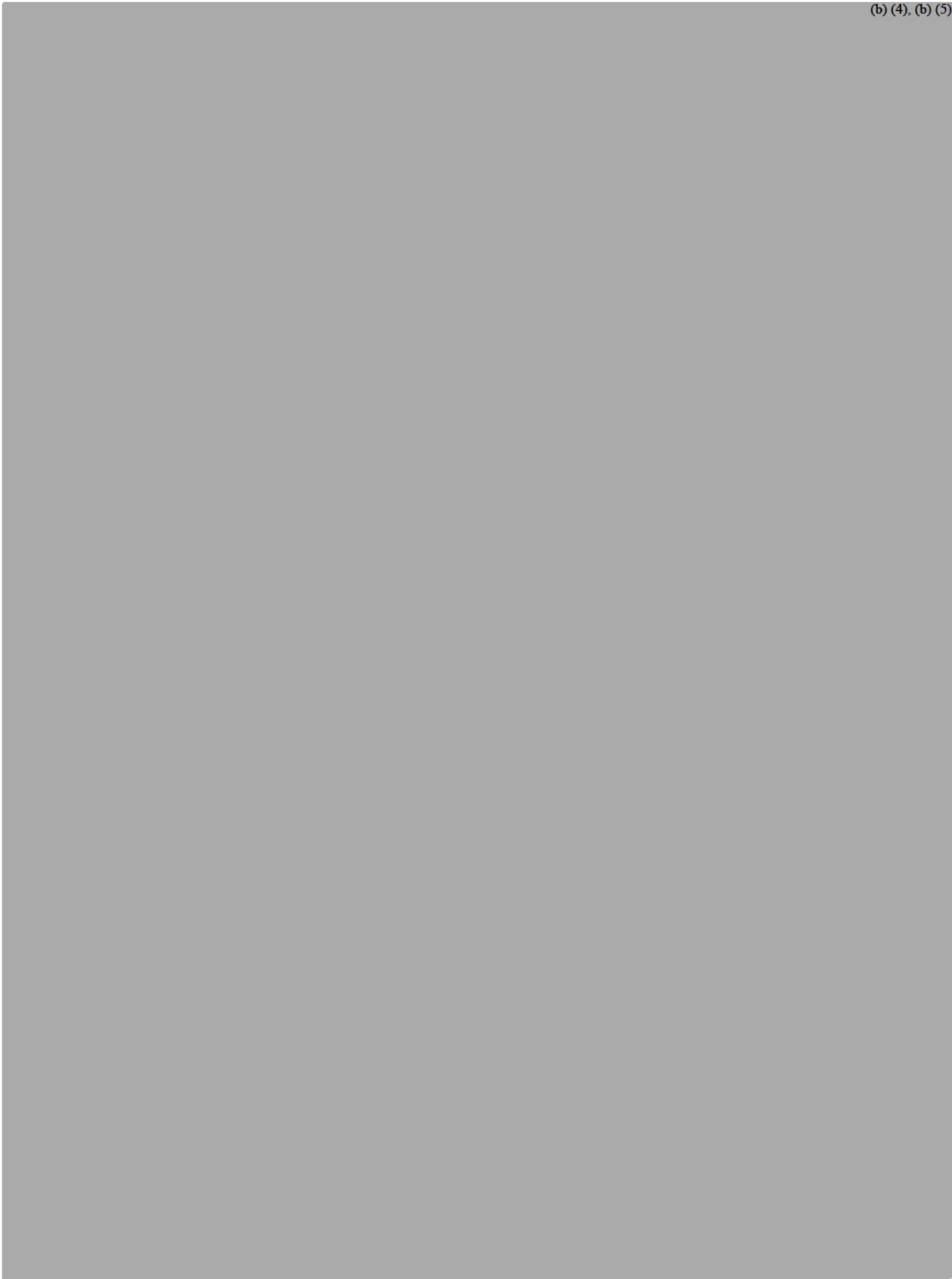
Libby and Laura, [REDACTED] (b) (5)
[REDACTED]

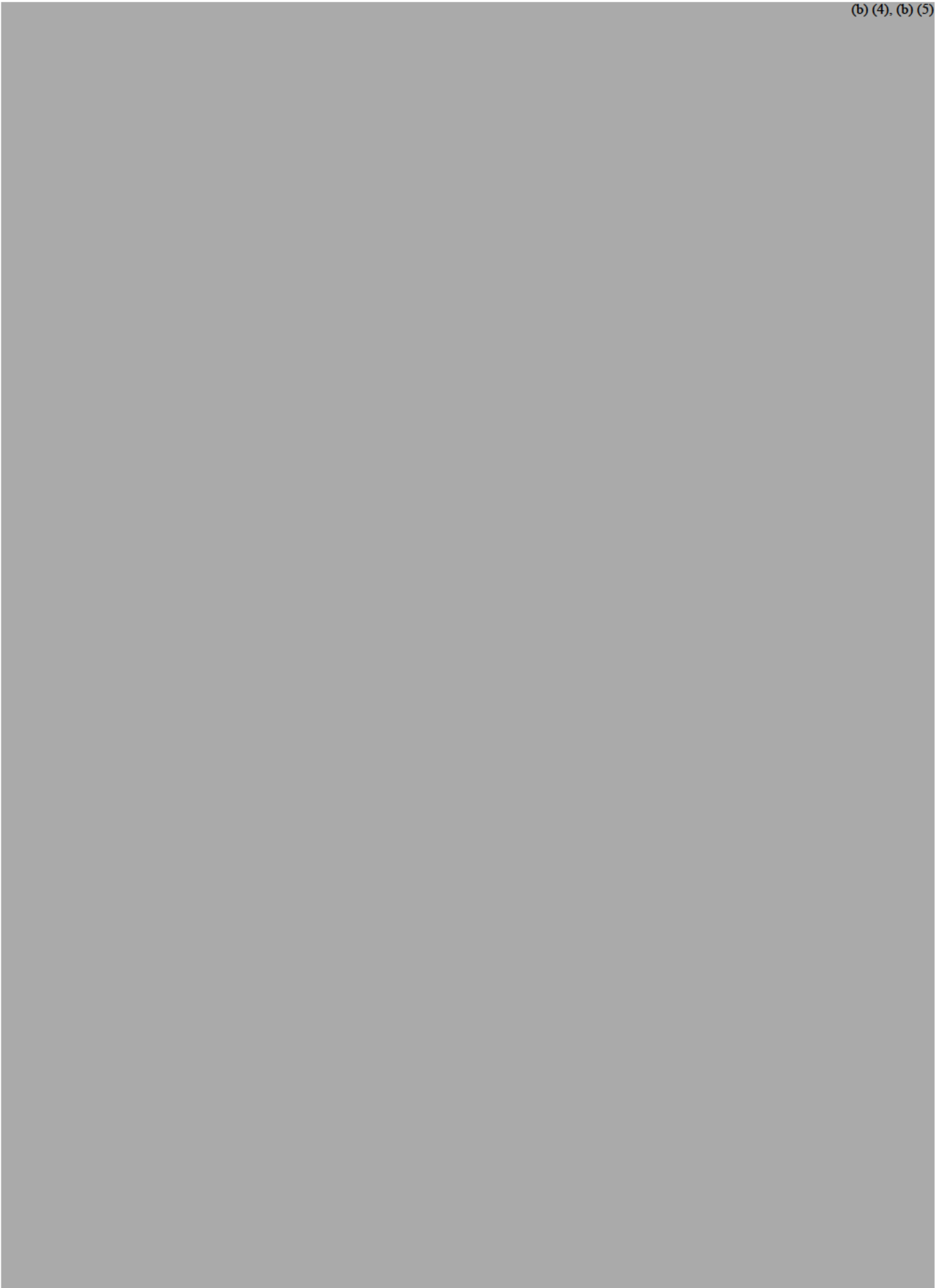
Please let me know your thoughts by COB if you have any concerns.

(b) (5)
[REDACTED]

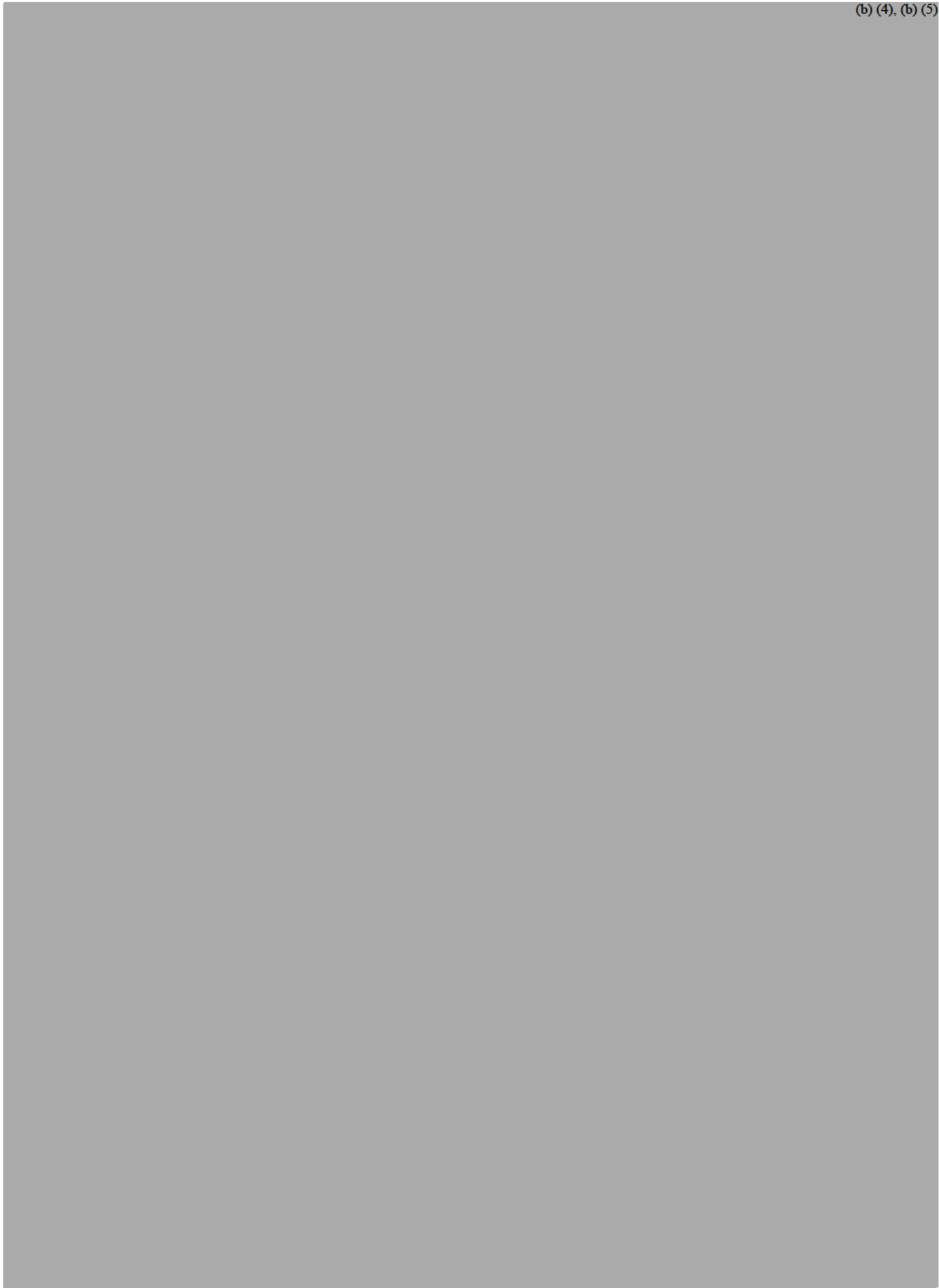
Thanks. Gray



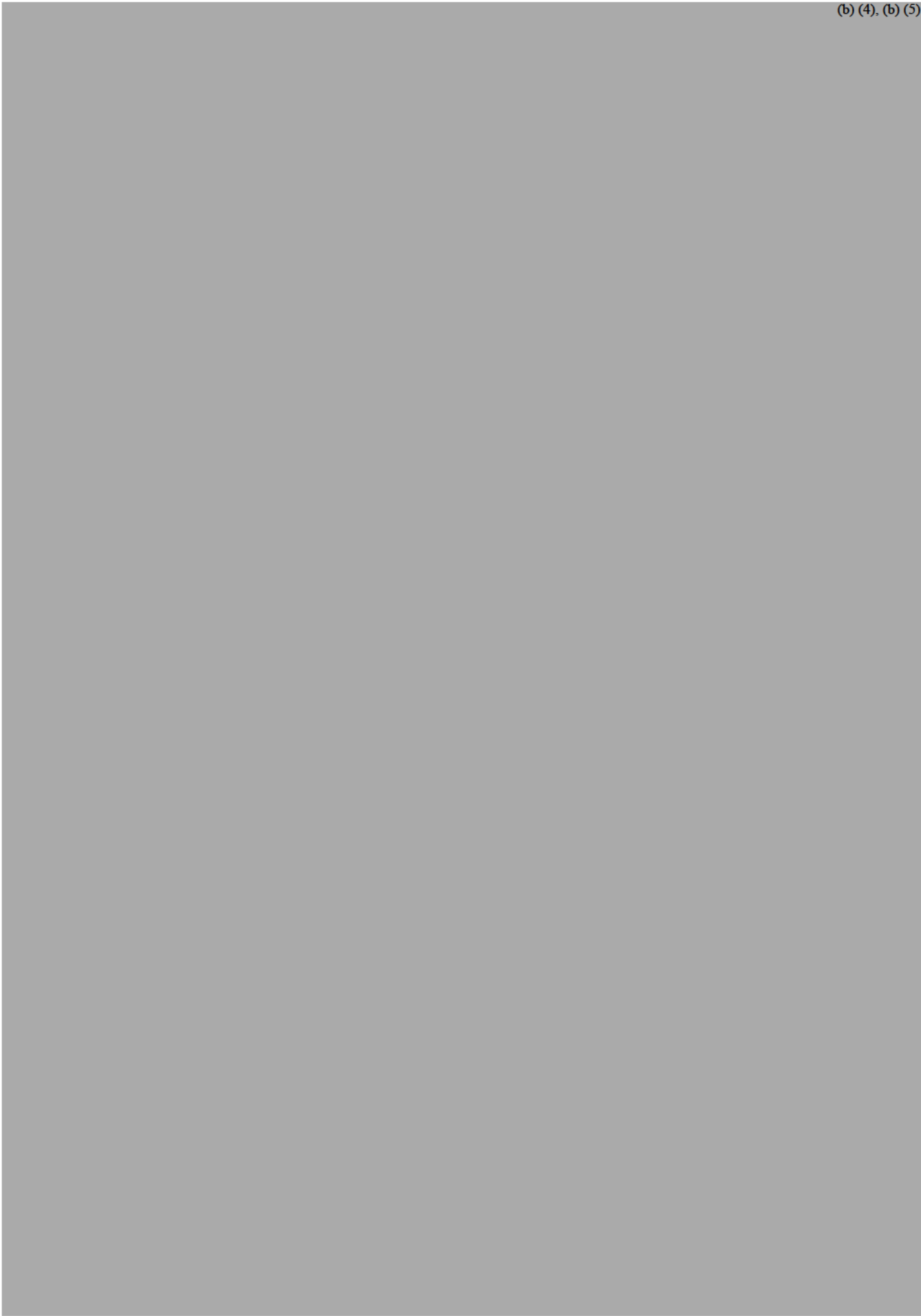


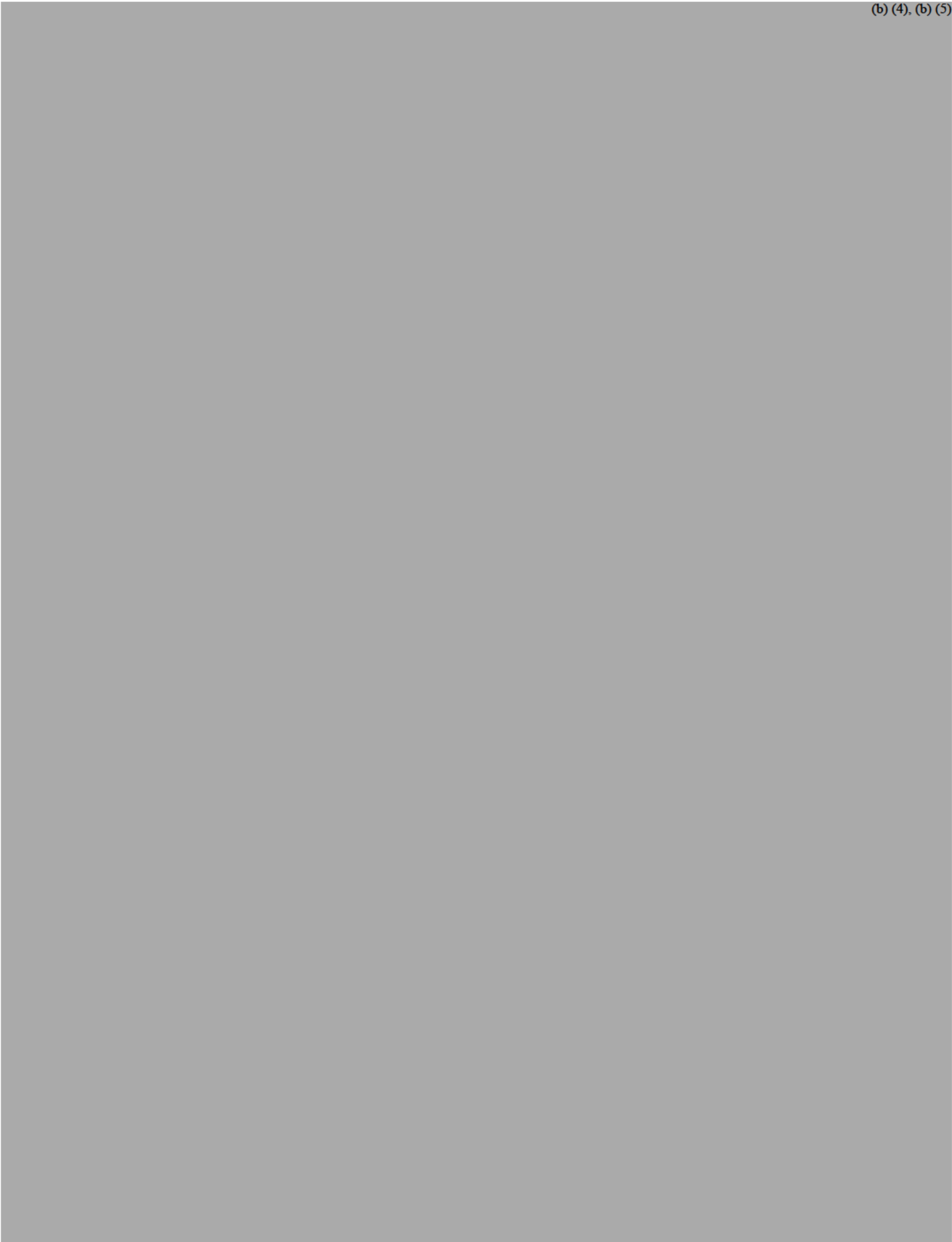




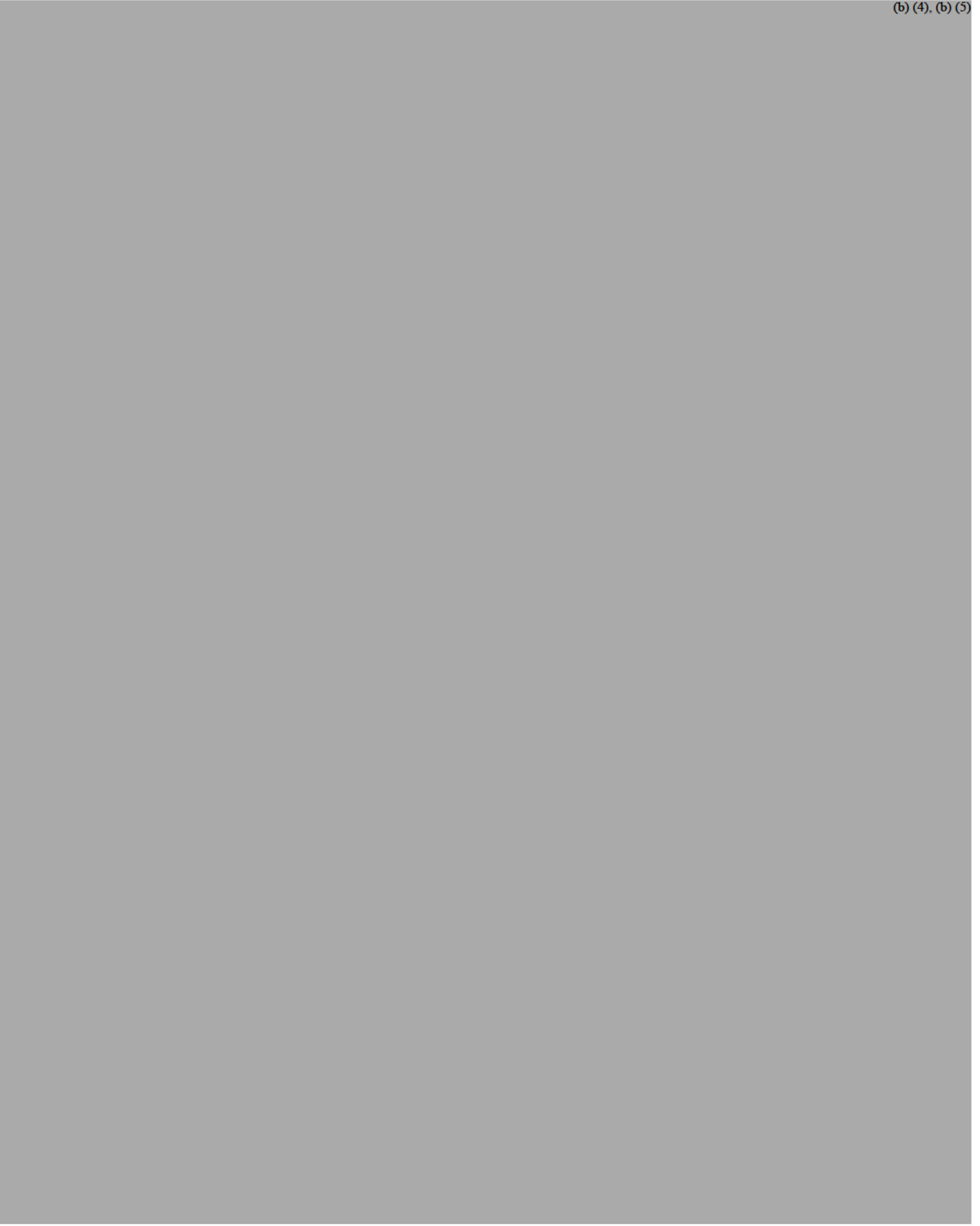


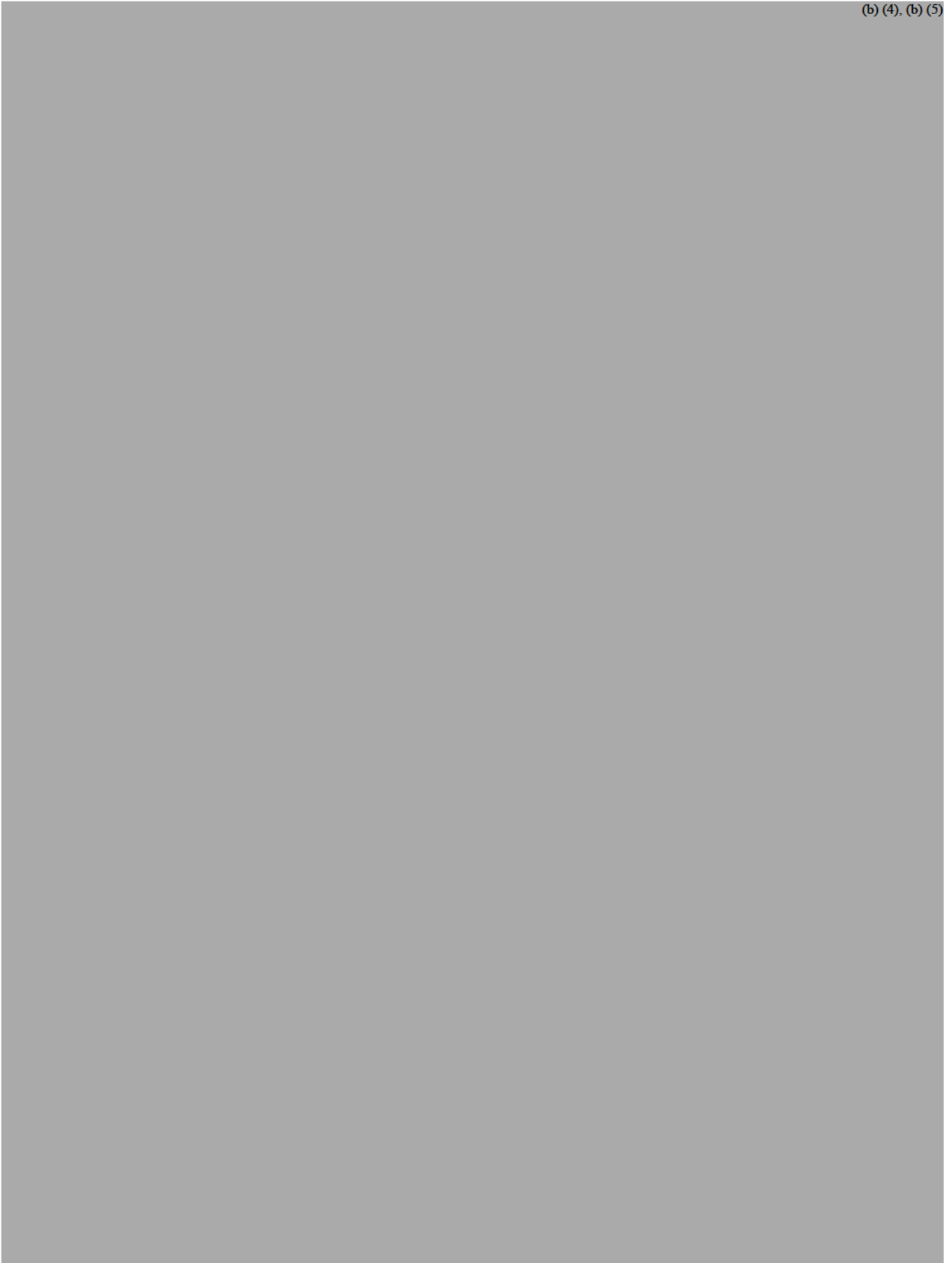


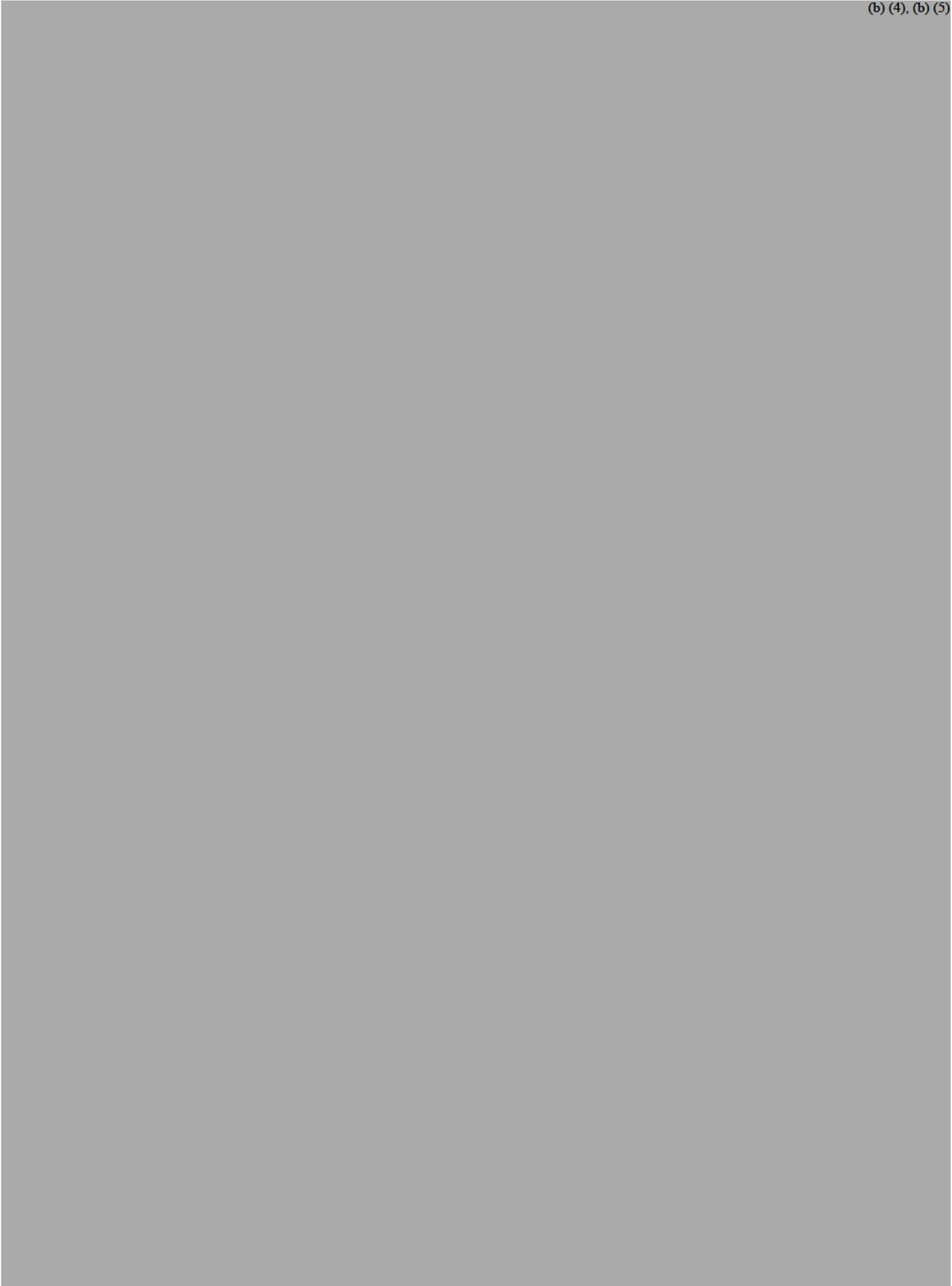


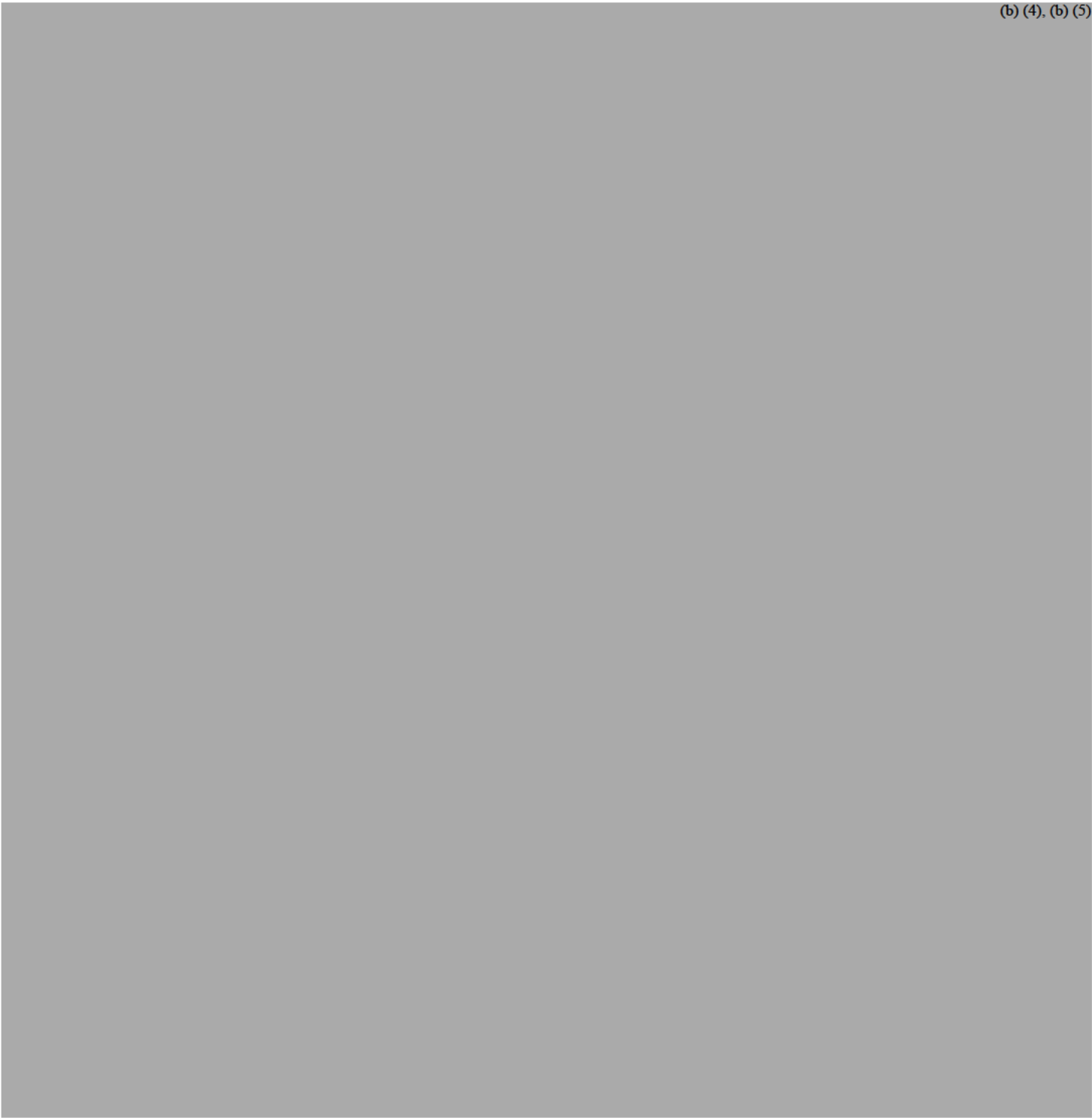




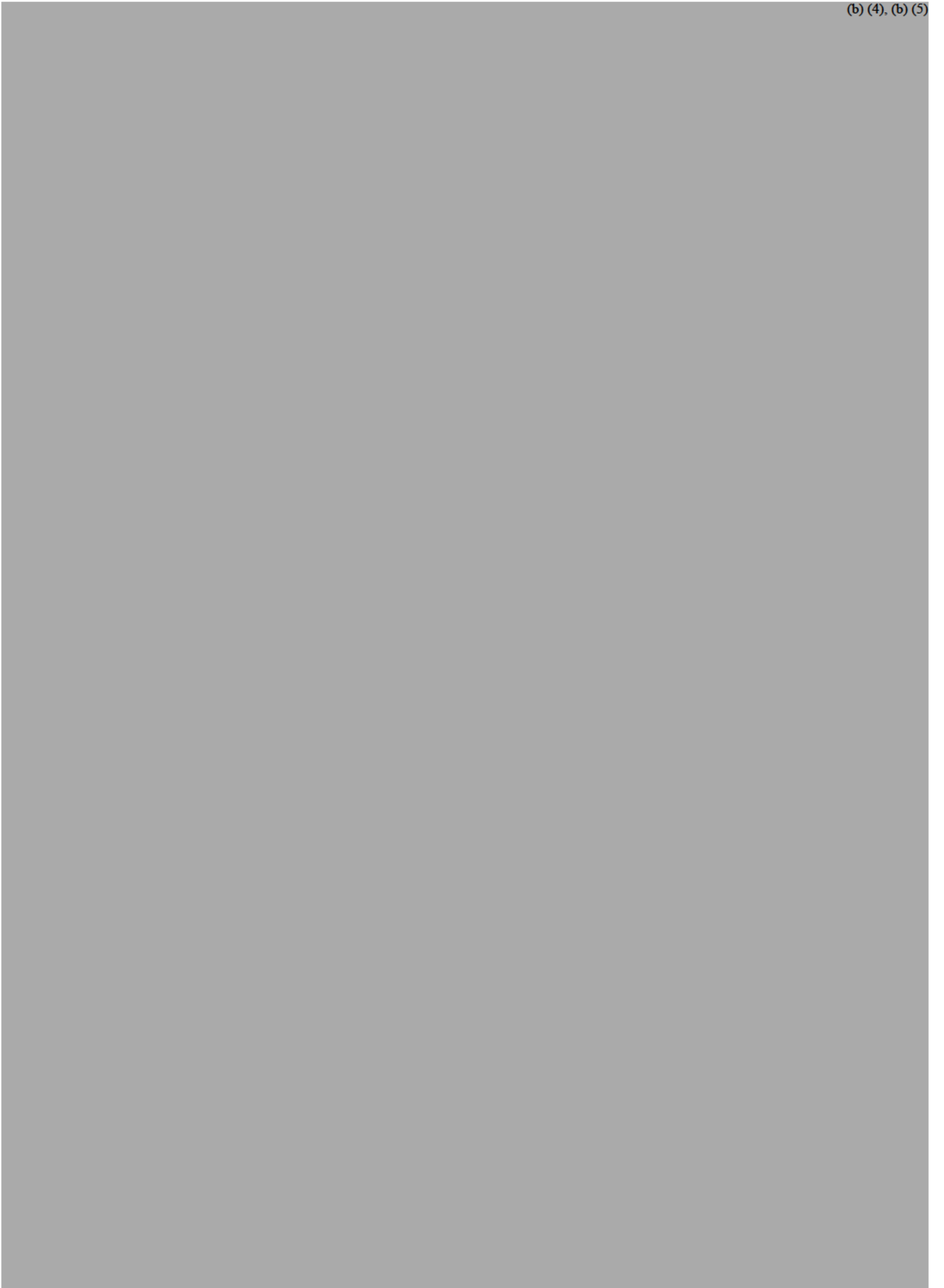


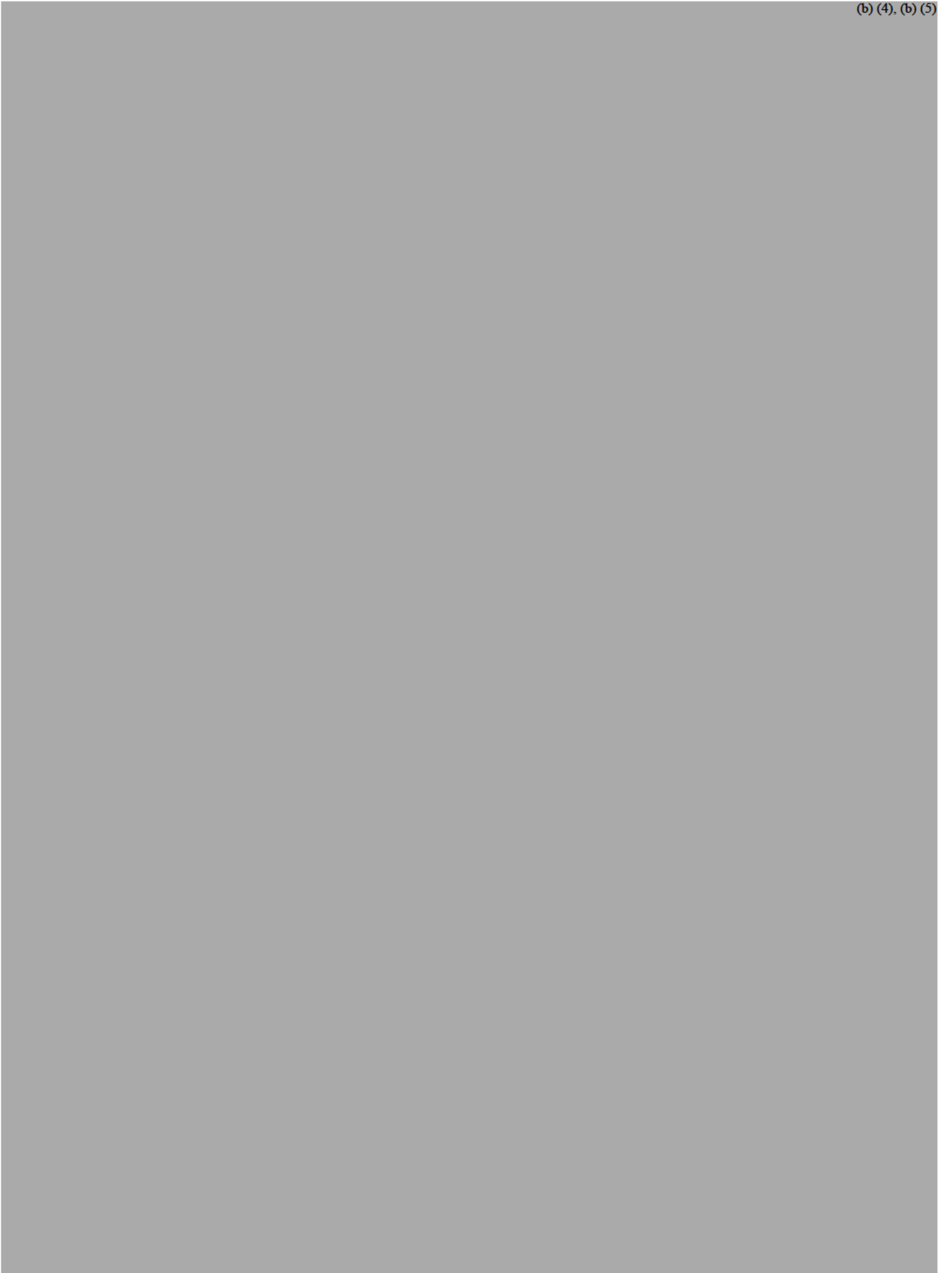




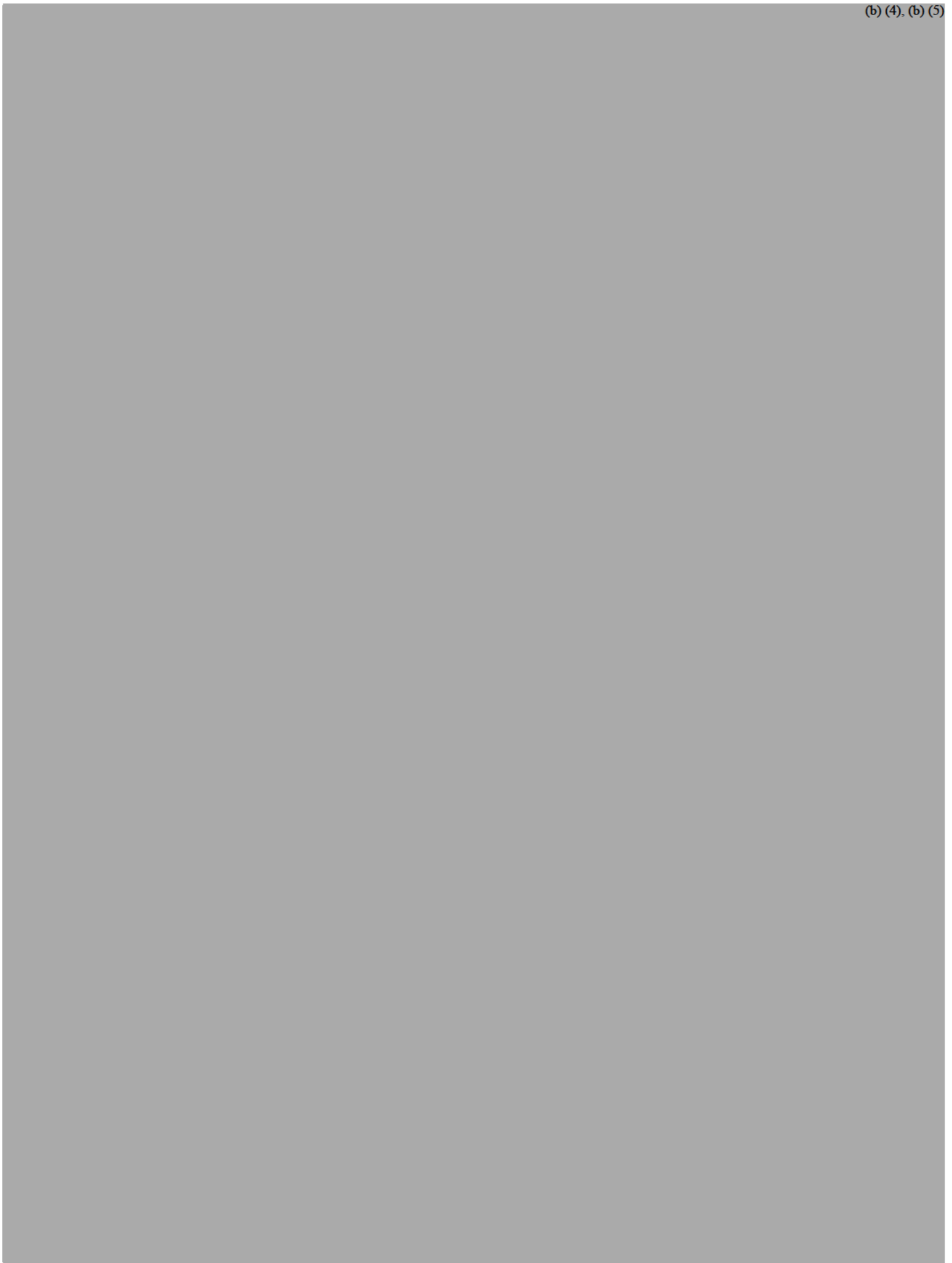


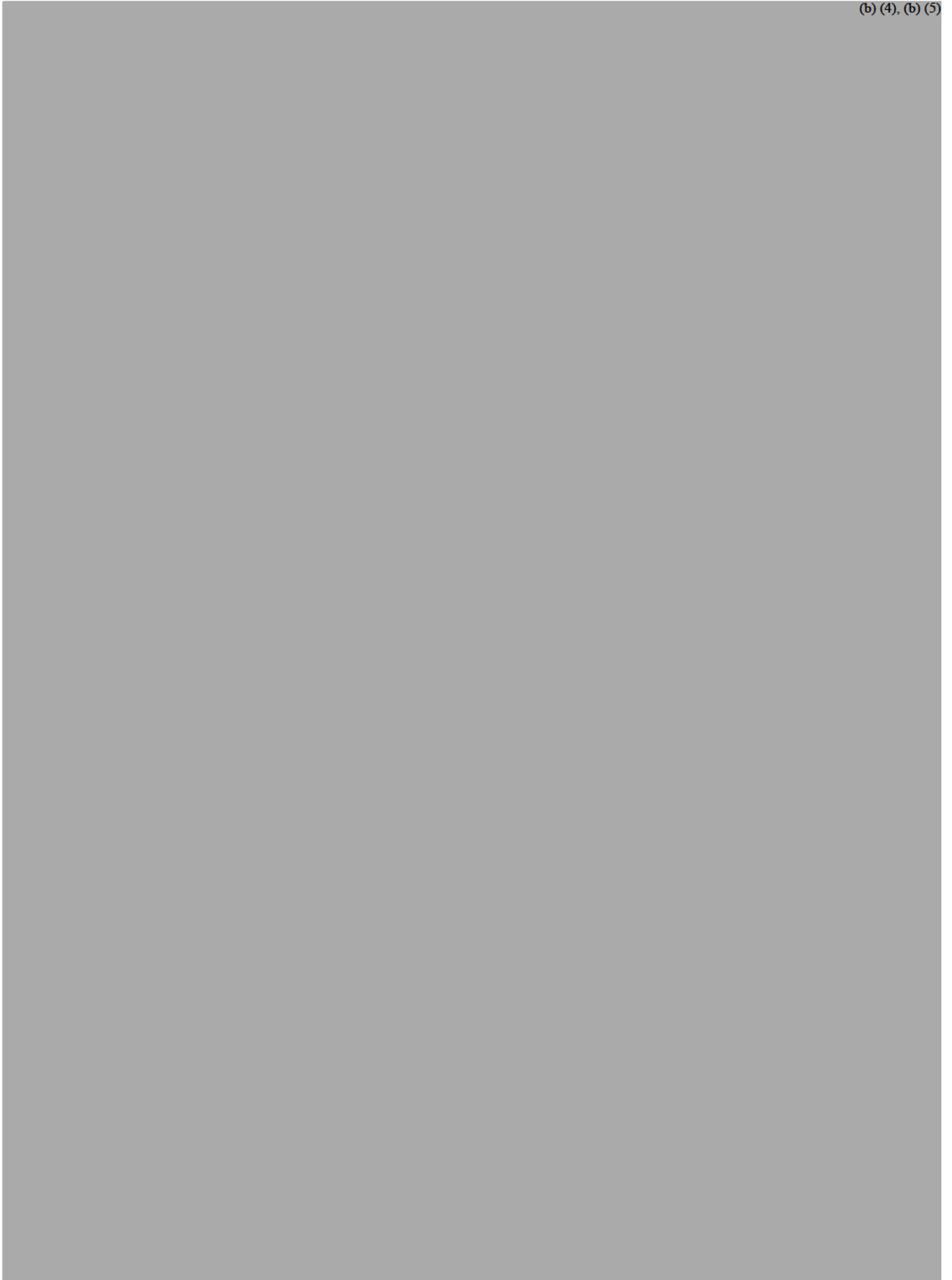


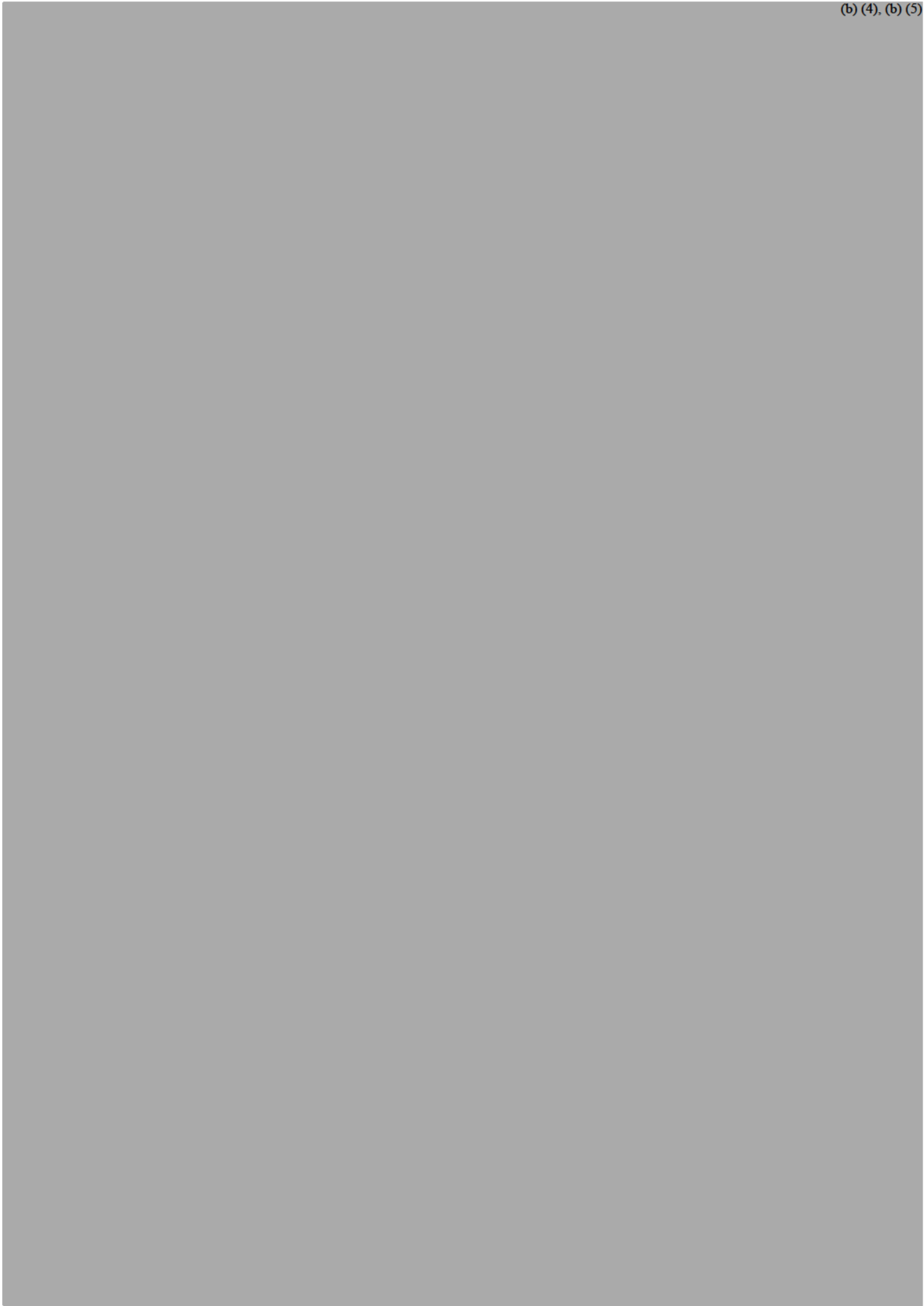


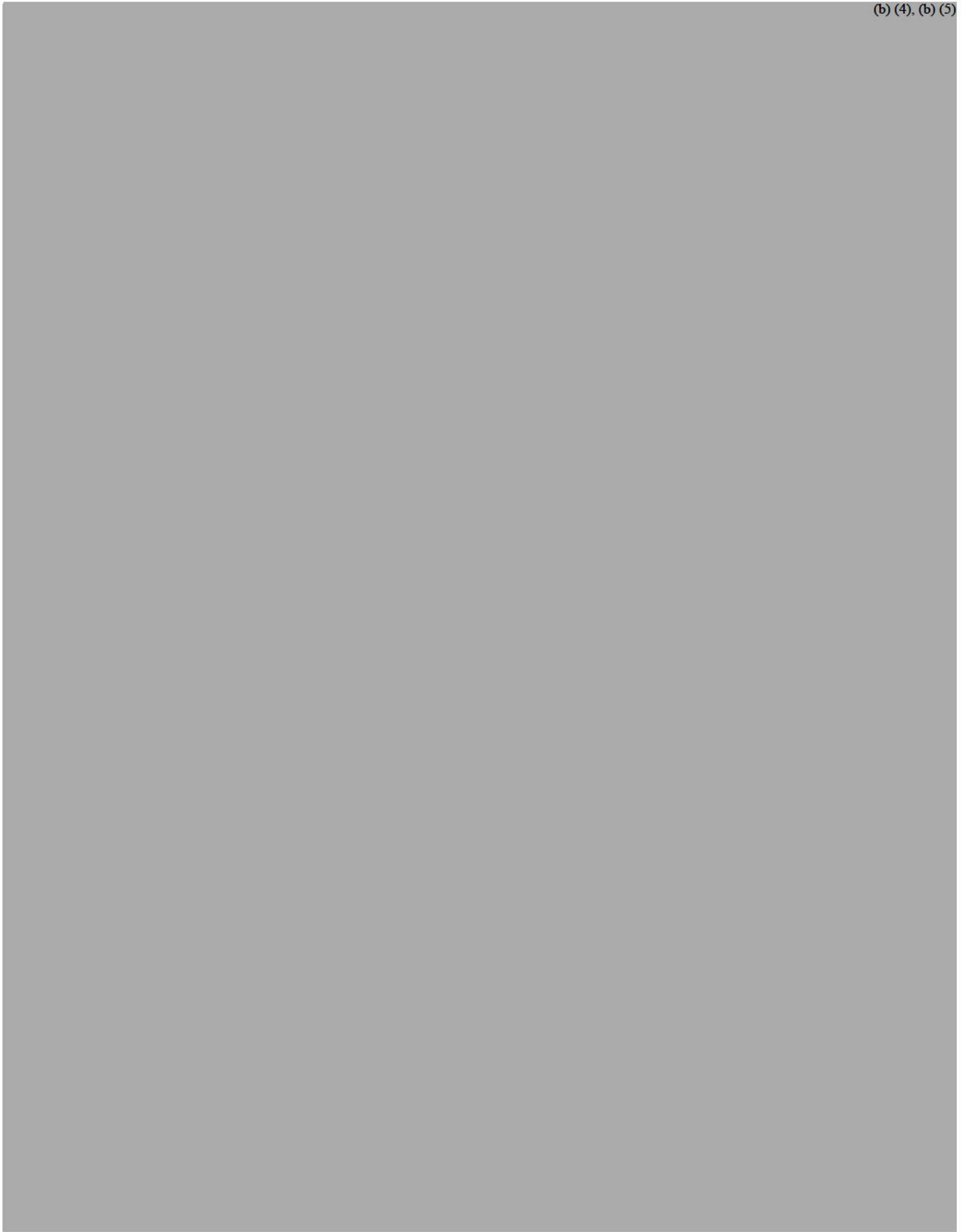




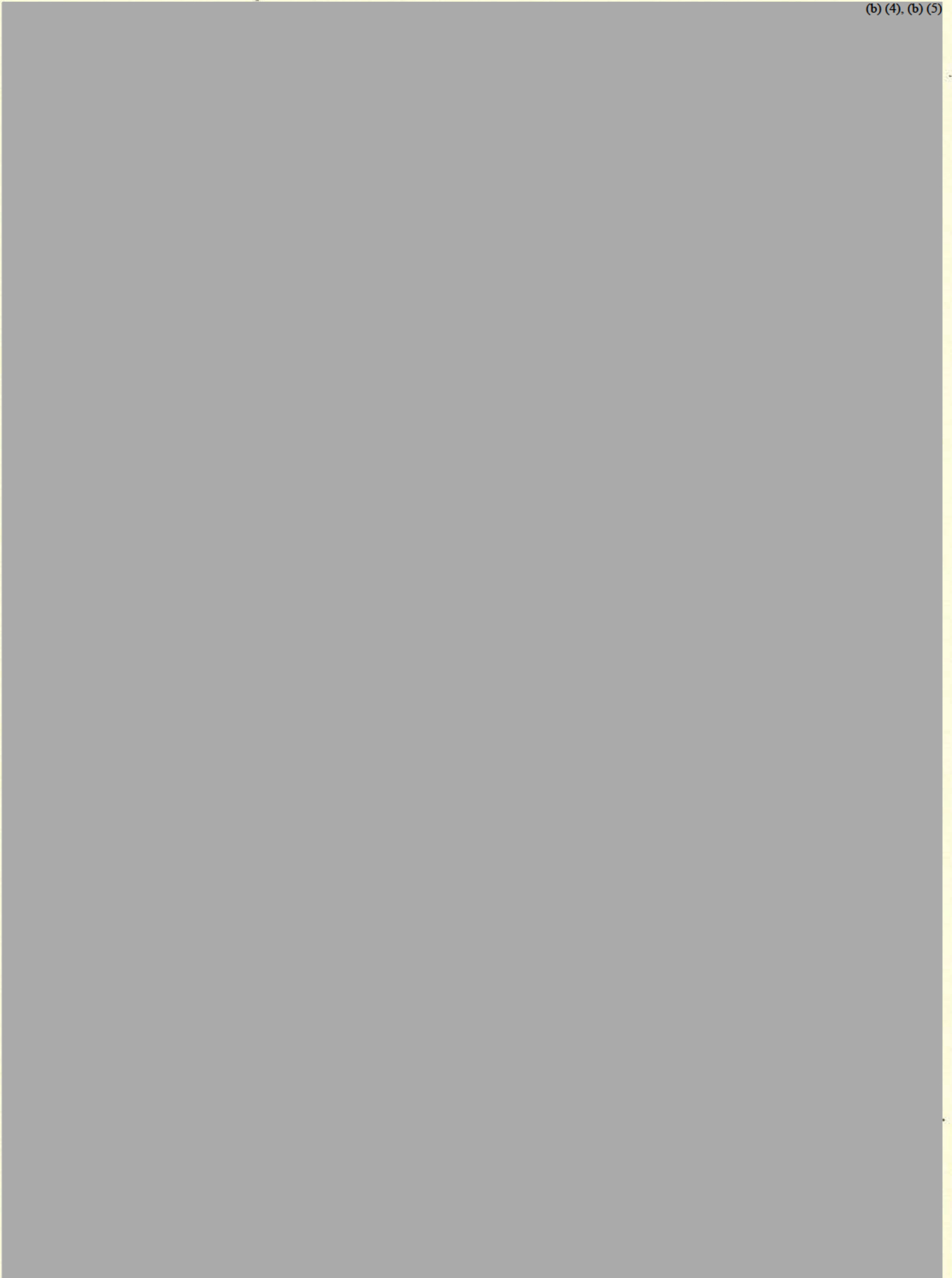








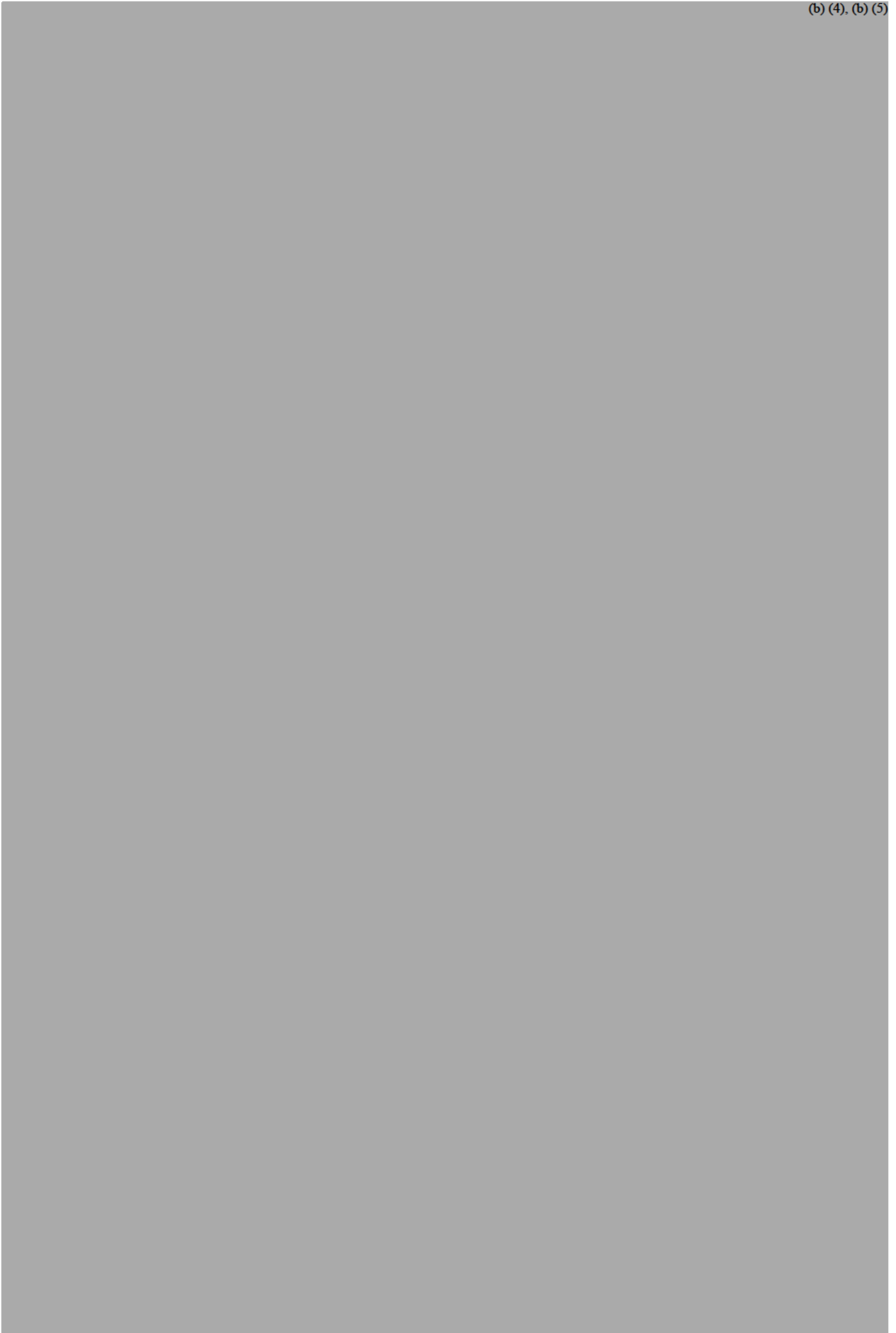




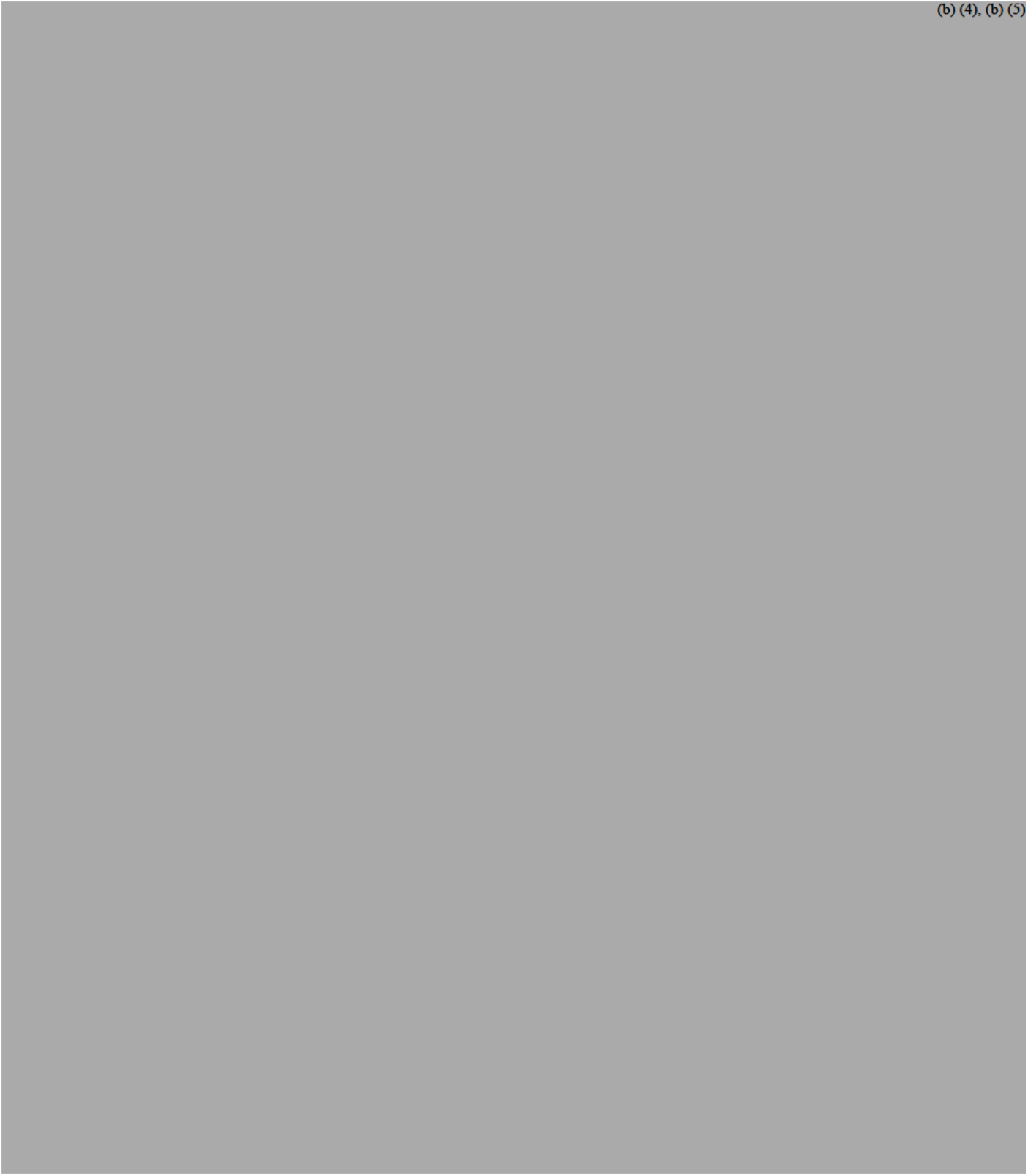




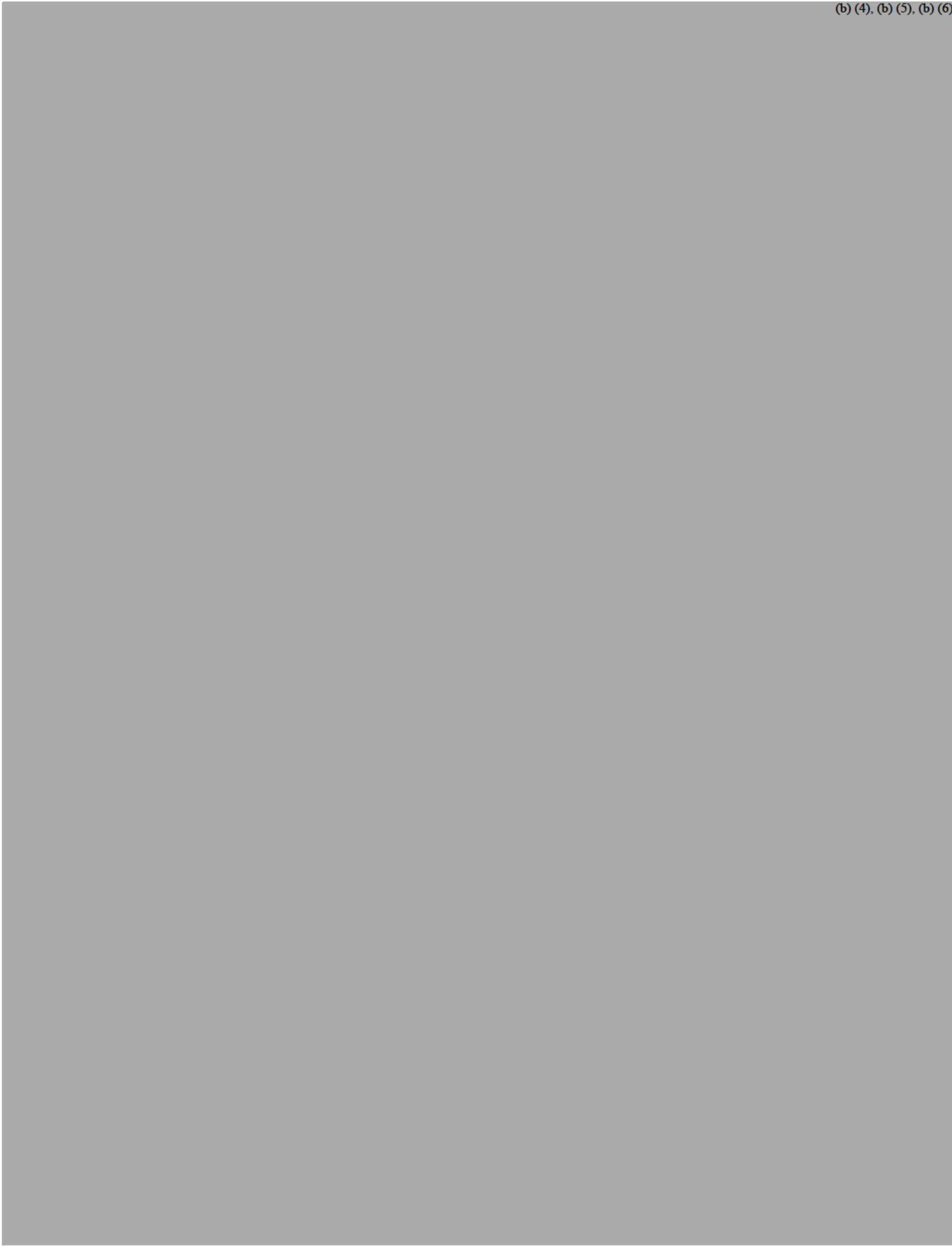


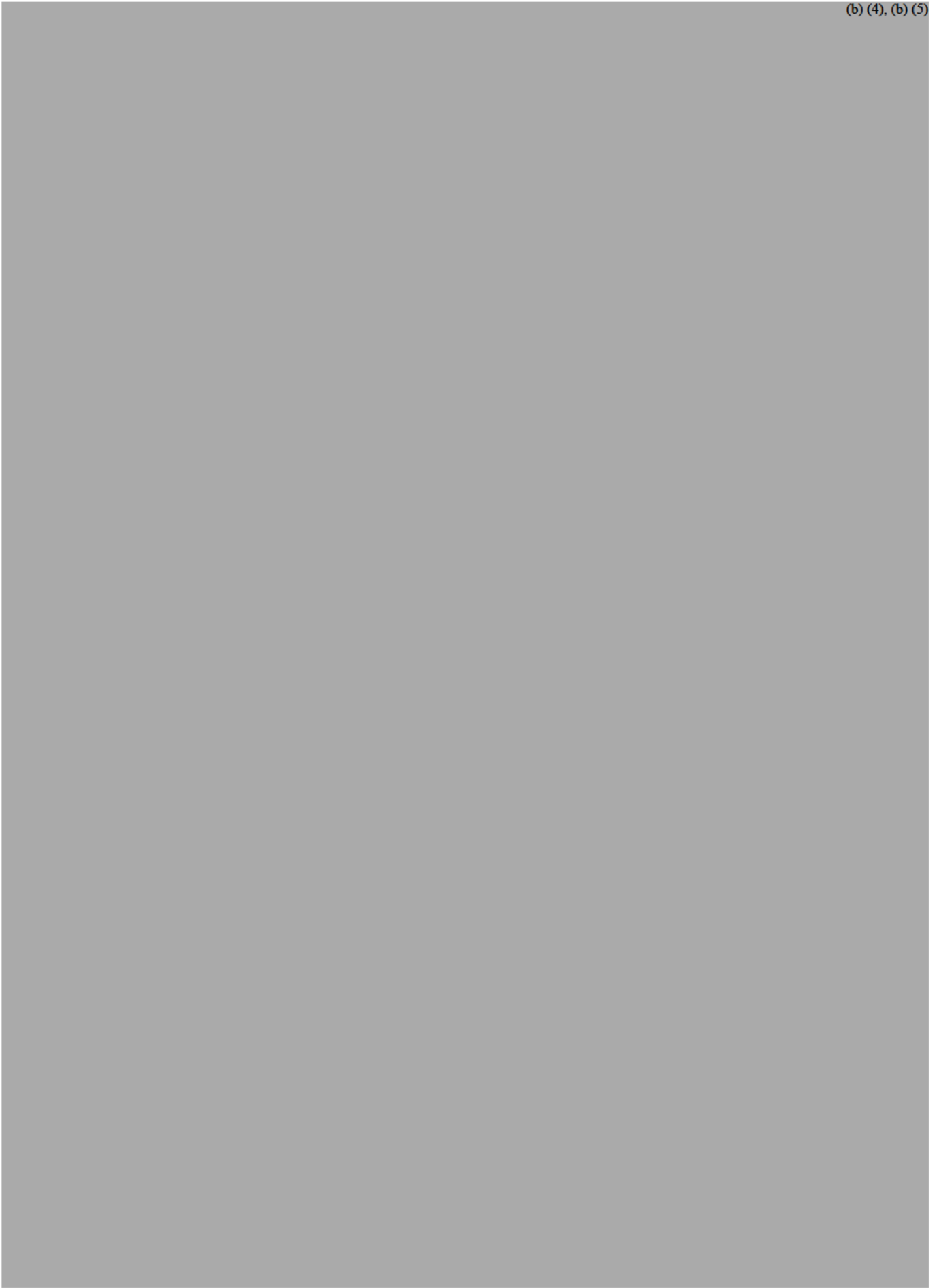


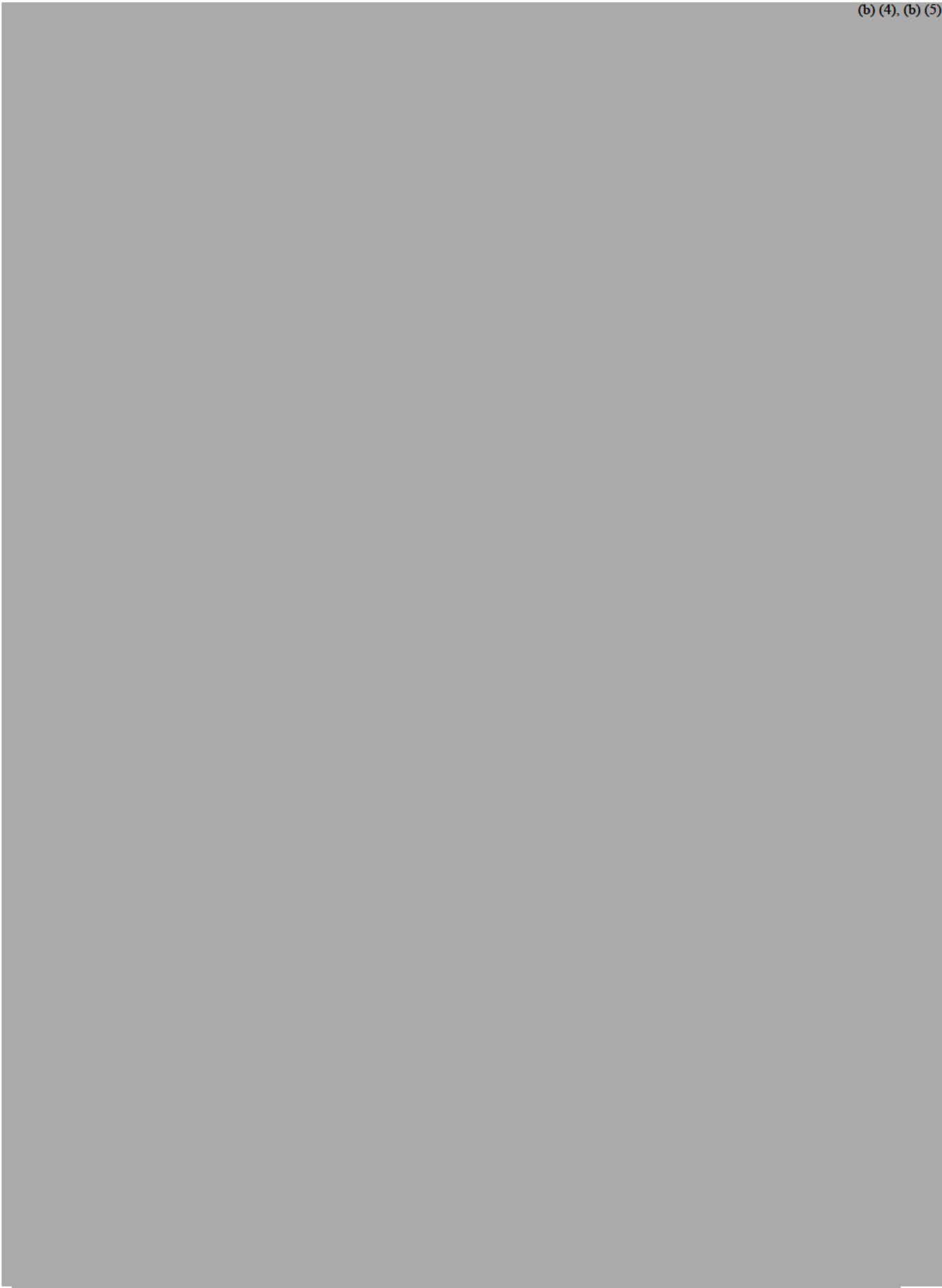




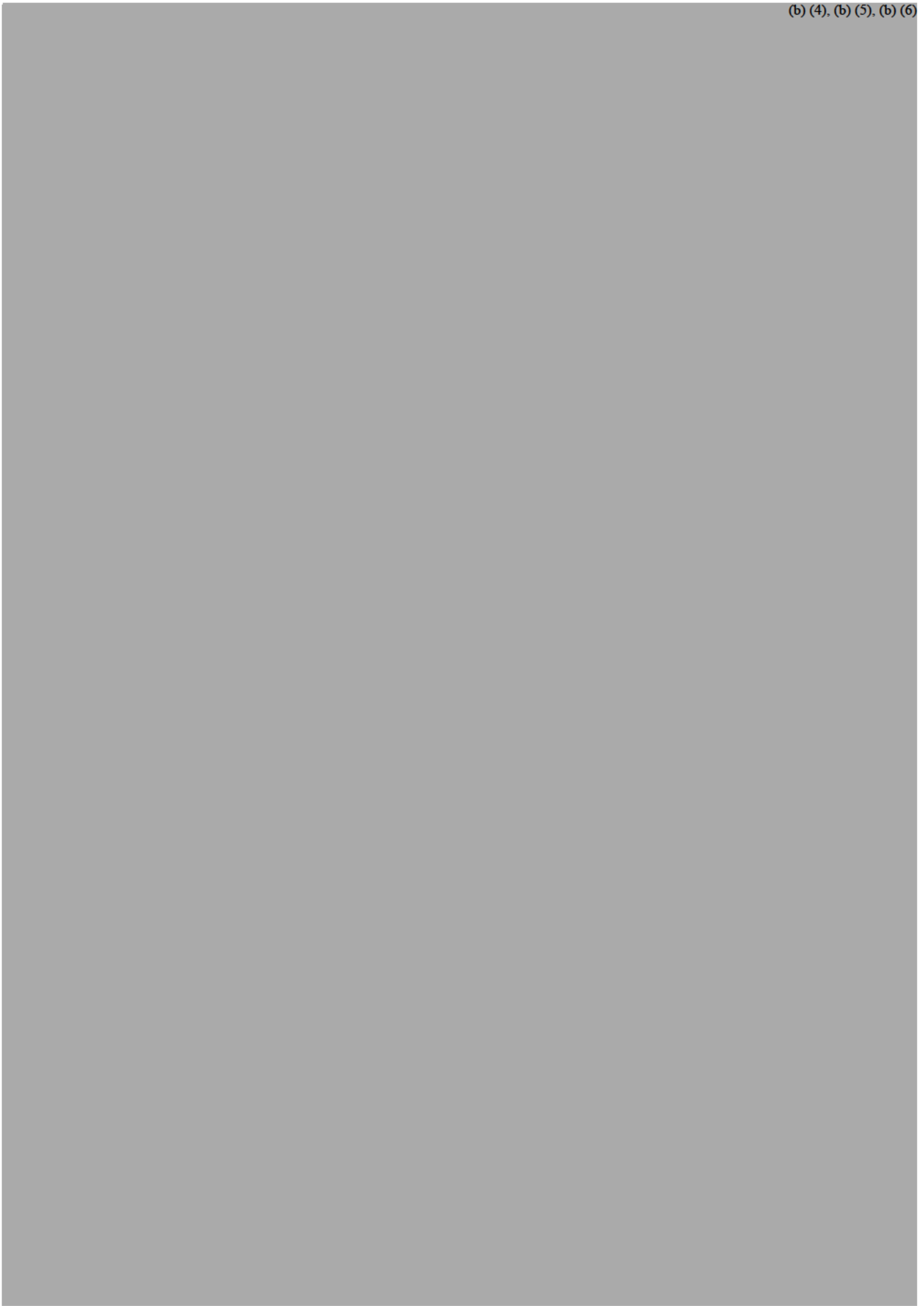


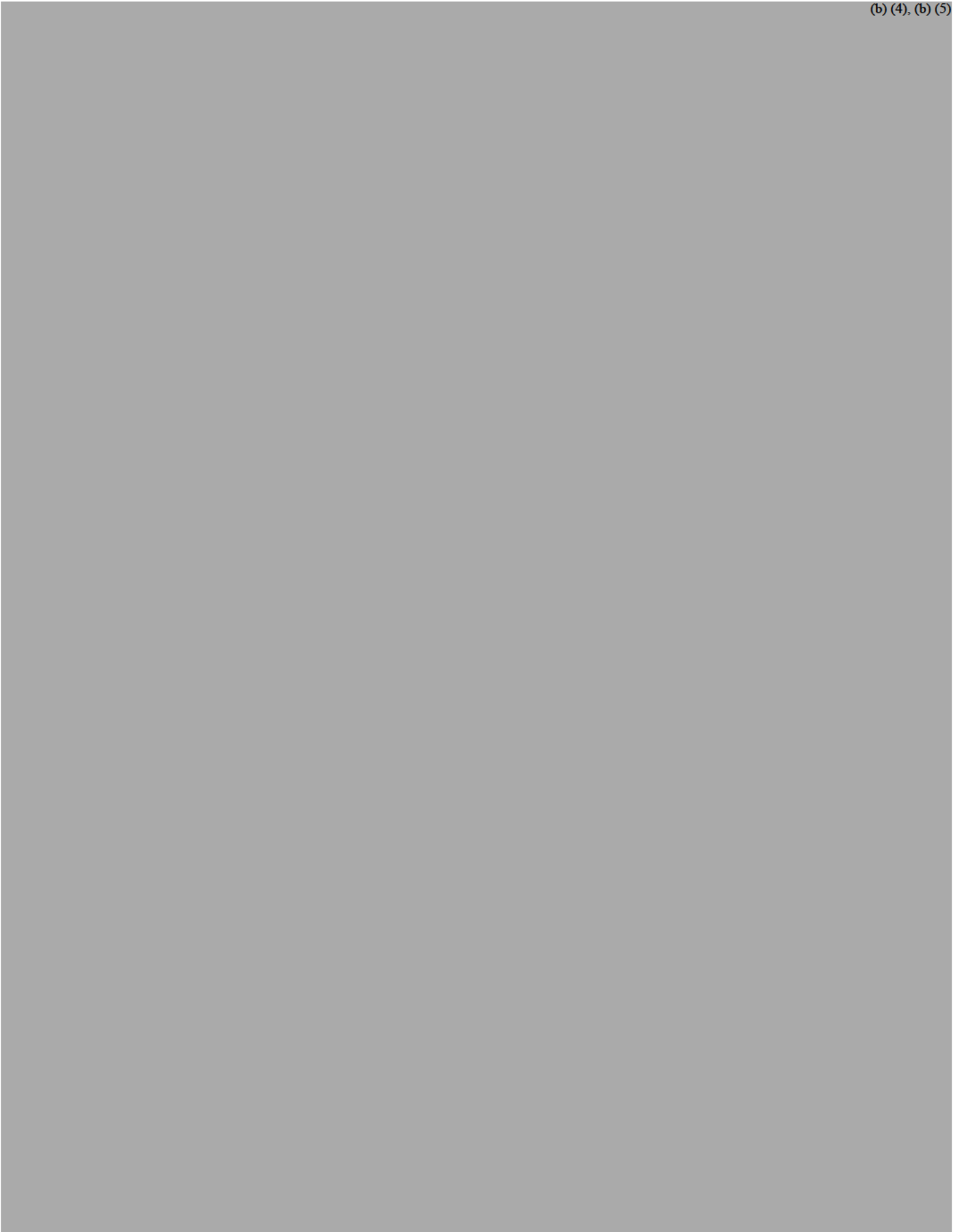


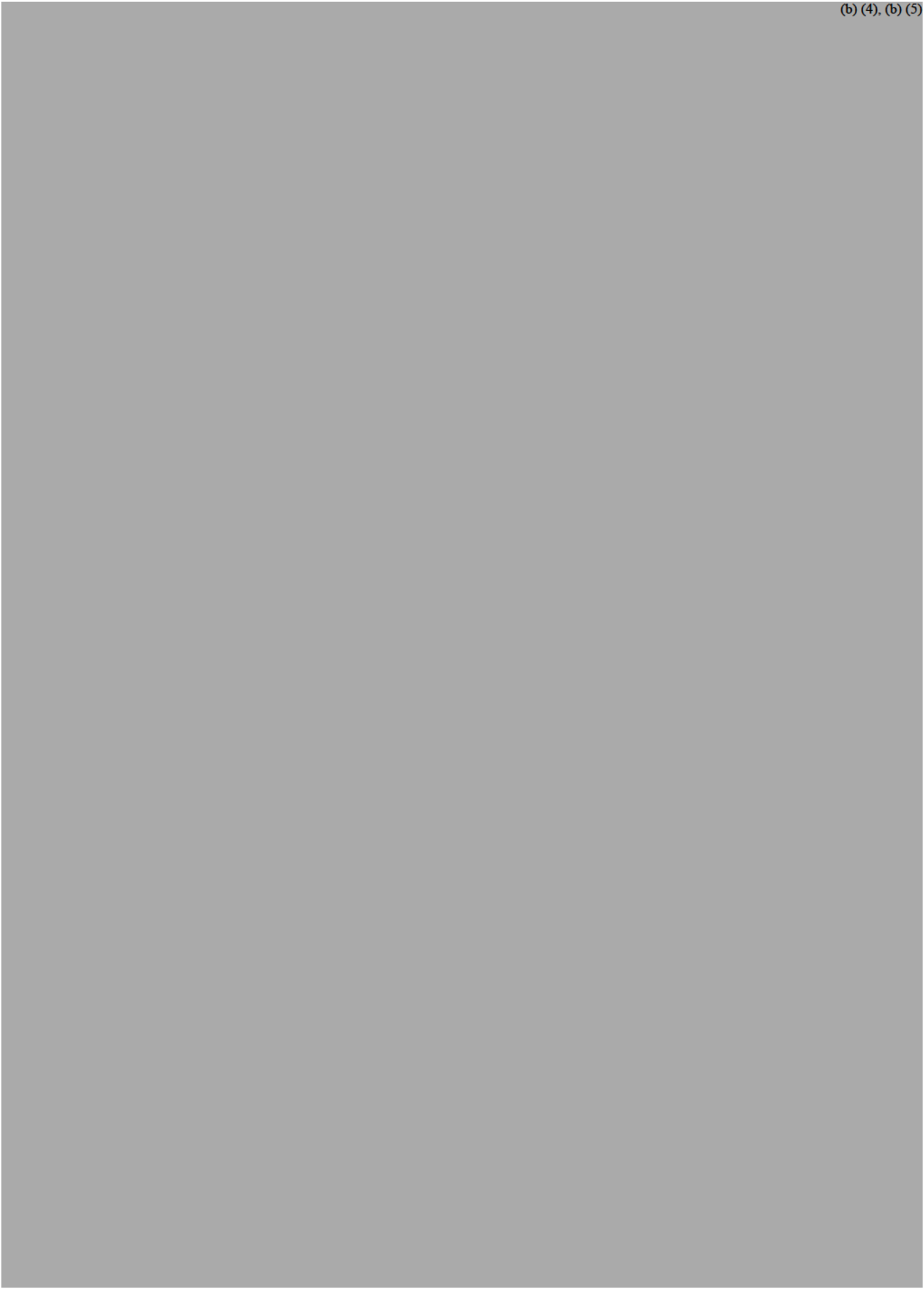














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(b) (4), (b) (5)

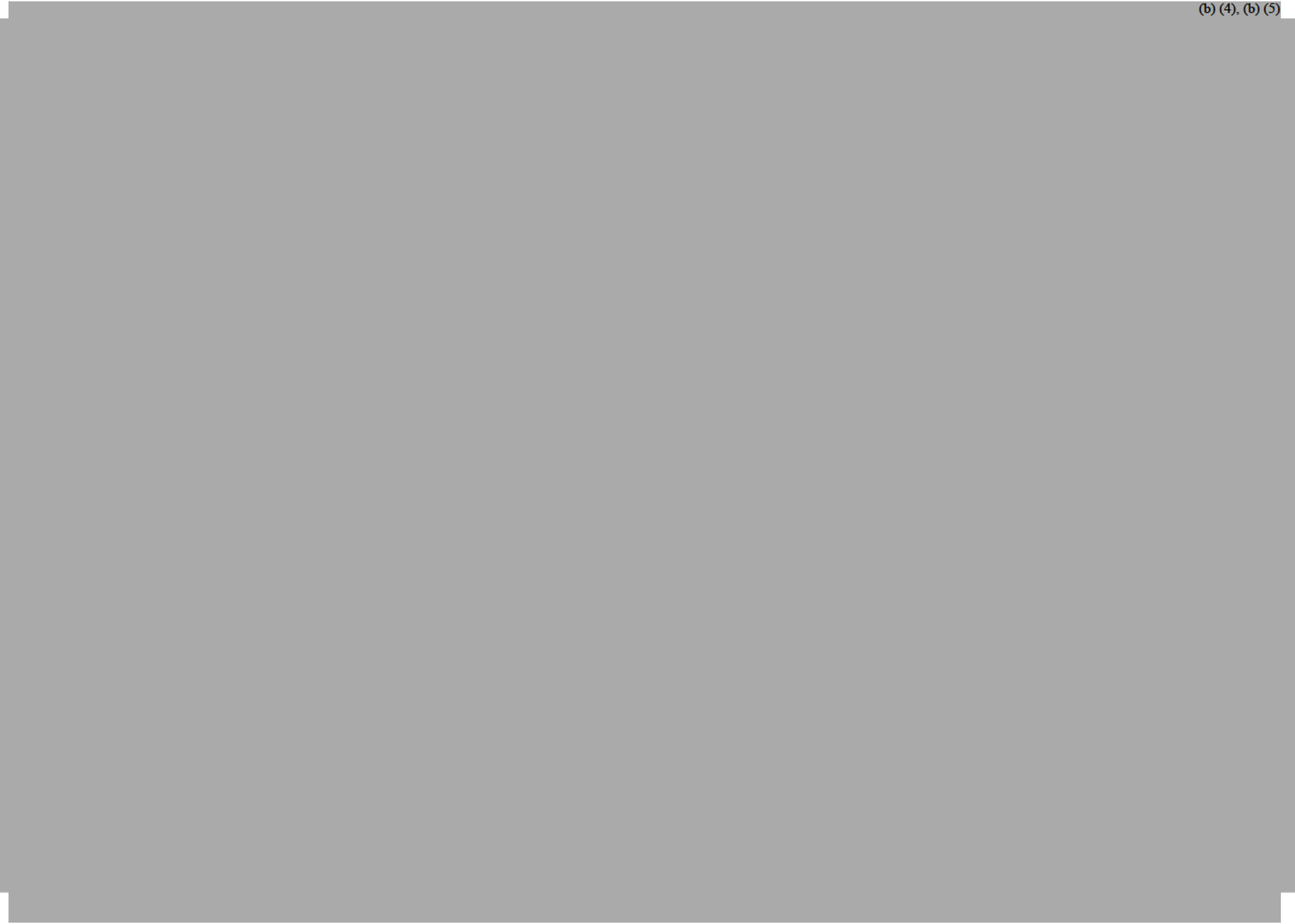








(b) (4), (b) (5)





(b) (4), (b) (5)

