**CURRICULUM VITAE**

**PERSONAL INFORMATION**

**]**

Name

**PAVEL A. BELOV**

Work address

Work phone/Mobile phone

E-mail Date of birth

**ITMO UNIVERSITY KRONVERKSKY PR. 49, 197101 ST. PETERSBURG, RUSSIA**

+7 963 3222320

[belov@metalab.ifmo.ru](mailto:belov@metalab.ifmo.ru) 18 December 1977

|  |  |
| --- | --- |
| **EDUCATION** |  |
| * Dates (from – to) | February 2004 – November 2010 |
| * Name of organization | St. Petersburg State University of Information Technologies, Mechanics and Optics, Sablinskaya st. 14, 197101, St. Petersburg, Russia; [*www.ifmo.ru*](http://www.ifmo.ru/) |
| * Principal subjects | Optics and radiophysics |
| * Title of qualification | **Doctor of Science** |
| * Title of thesis | Transmission of electromagnetic field distributions with subwavelength resolution by means of extremely anisotropic metamaterials |

* Dates (from – to)
* Name of organization
  + Principal subjects
* Title of qualification
  + Title of thesis

May 2001 – November 2006

Radio Laboratory, Helsinki University of Technology,

PO. Box 3000, FIN-02015 TKK, Espoo, Finland ; [*www.hut.fi*](http://www.hut.fi/)

Radioengineering and electromagnetics

**Doctor of Science in Technology***, with distinction* **(second PhD)**

Analytical modeling of metamaterials and new principle of sub-wavelength imaging

[*http://lib.tkk.fi/Diss/2006/isbn9512283786/*](http://lib.tkk.fi/Diss/2006/isbn9512283786/)

* Dates (from – to)
* Name of organization
  + Principal subjects
* Title of qualification awarded
  + Title of thesis

May 2001 – September 2004

Radio Laboratory, Helsinki University of Technology,

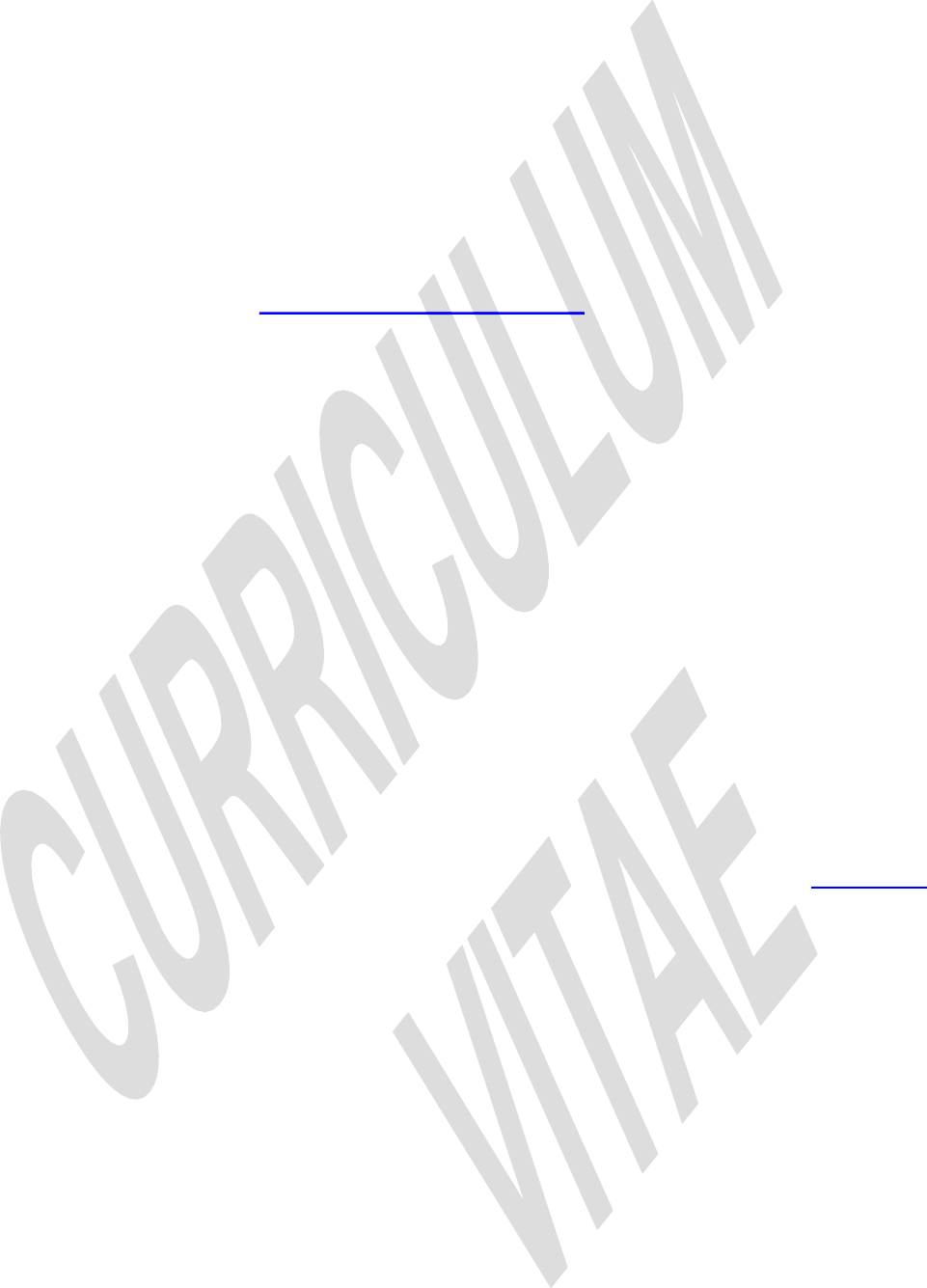
PO. Box 3000, FIN-02015 TKK, Espoo, Finland ; [*www.hut.fi*](http://www.hut.fi/)

Radioengineering and electromagnetics

**Licentiate in Technology***, with distinction*

Analytical studies of complex microwave stop band structures

* Dates (from – to)



* Name of organization
  + Principal subjects
* Title of qualification awarded
  + Title of thesis

July 2000 – May 2003

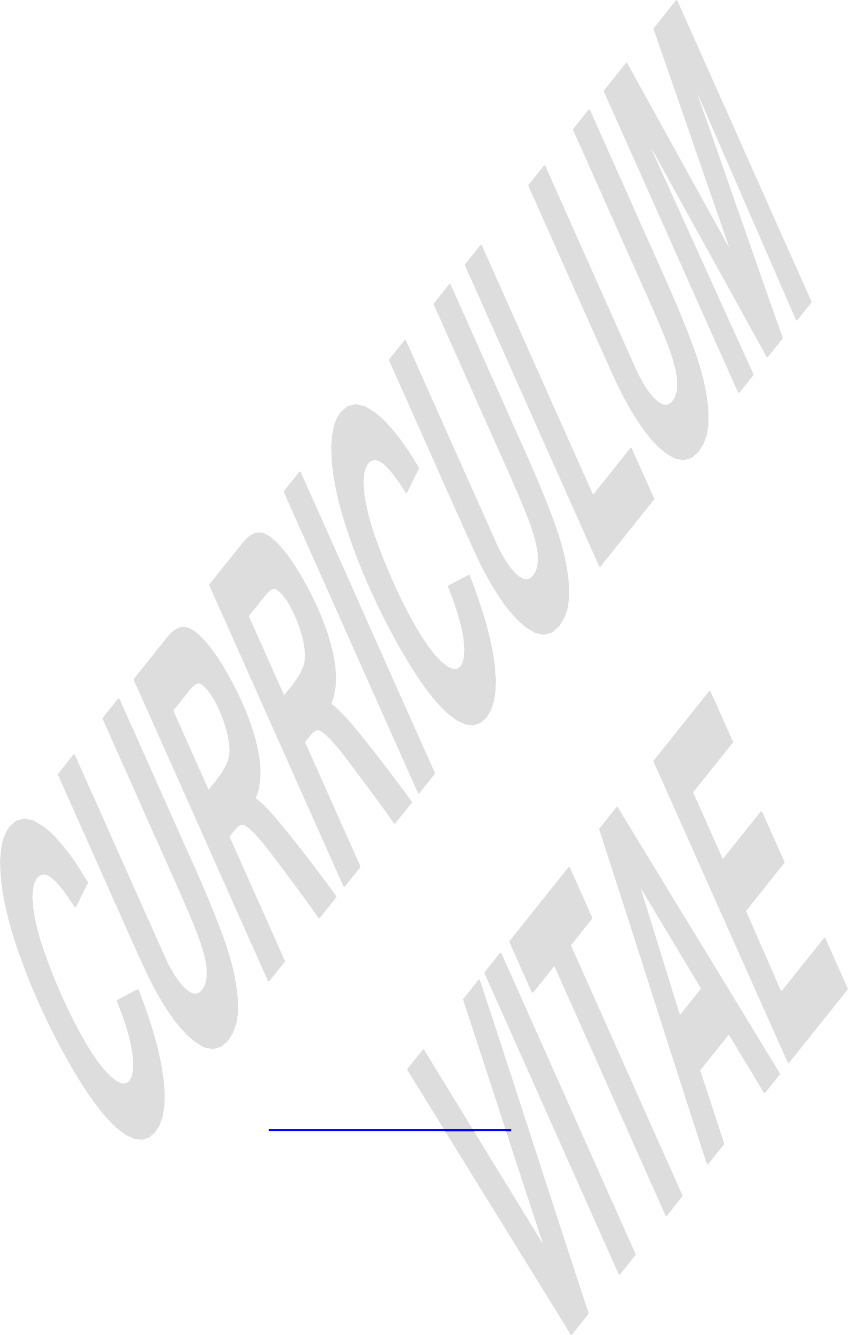
St. Petersburg Institute of Fine Mechanics and Optics, Sablinskaya st. 14, 197101, St. Petersburg, Russia; [*www.ifmo.ru*](http://www.ifmo.ru/)Optics and radiophysics

**Candidate of Science (PhD equivalent)**

Analytical modeling of electromagnetic crystals

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| * Dates (from – to) | September 1998 – May 2000 |
| * Name of organization | St. Petersburg Institute of Fine Mechanics and Optics,  Sablinskaya st. 14, 197101, St. Petersburg, Russia; [*www.ifmo.ru*](http://www.ifmo.ru/) |
| * Principal subjects | Applied mathematics and computer science |
| * Title of qualification awarded | **Master of Science,** *cum laude* |
| * Title of thesis | Electromagnetic interaction in regular arrays of scatterers |

* Dates (from – to)



* Name of organization
  + Principal subjects
* Title of qualification awarded
  + Title of thesis

**SCHOLARSHIPS FOR SUPPORT OF STUDIES**

**WORK EXPERIENCE**

* Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities
    - Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities

September 1994 – May 1998

St. Petersburg Institute of Fine Mechanics and Optics, Sablinskaya st. 14, 197101, St. Petersburg, Russia, [*www.ifmo.ru*](http://www.ifmo.ru/)Applied mathematics and computer science

**Bachelor of Science,** *cum laude*

Exact solution of interaction and excitation problems in regular arrays of bianisotropic scatterers

* Hudswell International Research Scholarship (IEE, UK, 2003)
* Nokia Scholarship (Nokia comp., Finland, 2003)
* SUMMA Fellowship in Advanced Electromagnetics (USA, 2002)
* IEEE MTTs Fellowship (USA, 2001)
* INTAS Fellowship (Belgium, 2001)
* SPIE Educational Scholarships (USA, 1999, 2000, 2003)
* Grants of International Soros Science Education Program (1995-2000, 2003)
* Grant for PhD students and young scientists of SPIFMO (Russia, 2003)
* Grant of St. Petersburg Administration for young scientists (Russia, 1998/99)
* Scholarship of Russian Federation Ministry of Education (Russia, 1999)
* Personal Scholarship of the President of Russian Federation for the progress in study and scientific research (Russia, 1998)
* Scholarship of St. Petersburg Mayor (Russia, 1997/98)

February 2023 – May 2023

NARXOZ University, Zhandosova, 55 Almaty, Kazakhstan, 050035

[*https://narxoz.edu.kz*](https://narxoz.edu.kz/)

**Consultancy**

Consulting, development of a concept for the development of an engineering school

April 2021 – **present time** / April 2017 – March 2021

School of Physics and Engineering / Department of Physics and Engineering

[*http://physics.ifmo.ru*](http://physics.ifmo.ru/)

ITMO University 49 Kronverksky pr. 197101, St. Petersburg, Russia;

[*www.ifmo.ru*](http://www.ifmo.ru/)

**Head of School of Physics and Engineering / Dean of Faculty of Physics and Engineering**

Research in the areas of metamaterials, metasurfaces, plasmonic nanostructures, nanoantennae, homogenization, spatial dispersion, magnetic resonance imaging.

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| * Dates (from – to) | April 2015 - August 2018 / November 2010 – March 2015 |
| * Name and address of   employer | Department of Nanophotonics and Metamaterials, The International Research Centre of Nanophotonics and Metamaterials (The Metamaterials Laboratory); ITMO University, 49 Kronverksky pr. 197101, St. Petersburg, Russia; [*http://metalab.ifmo.ru/*](http://metalab.ifmo.ru/) |
| * Occupation or position held | **Head of Department / Principal Researcher, Head of Centre** |
| * Main activities and responsibilities | Research in the areas of metamaterials, metasurfaces, plasmonic nanostructures, nanoantennae, homogenization, spatial dispersion, magnetic resonance imaging. |

* + Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities
    - Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities
    - Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities

September 2012– January 2013

Skolkovo Institute of Science and Technology; Bolshoi blvd, 30, bd.1, Moscow, 121205, Russia Russia; [*www. skoltech.ru*](http://www.ifmo.ru/)

**Founding Fellow**

Promotion of the new university, invitation of new stuff.

Sept. 2007– Nov. 2010 / Feb. 2004 – Nov. 2004 / May 2003 – Jan. 2004

St. Petersburg State University of Information Technologies, Mechanics and Optics; Photonics and Optoinformatics Department, Sablinskaya st. 14, 197101, St.

Petersburg, Russia; [*www.ifmo.ru*](http://www.ifmo.ru/)

**Leading Researcher / Associate Professor / Senior Researcher**

Theoretical and numerical studies of electromagnetic crystals and metamaterials. Undergraduate teaching (electromagnetics, mechanics).

September 2007 – August 2012

School of Electronic Engineering and Computer Science,

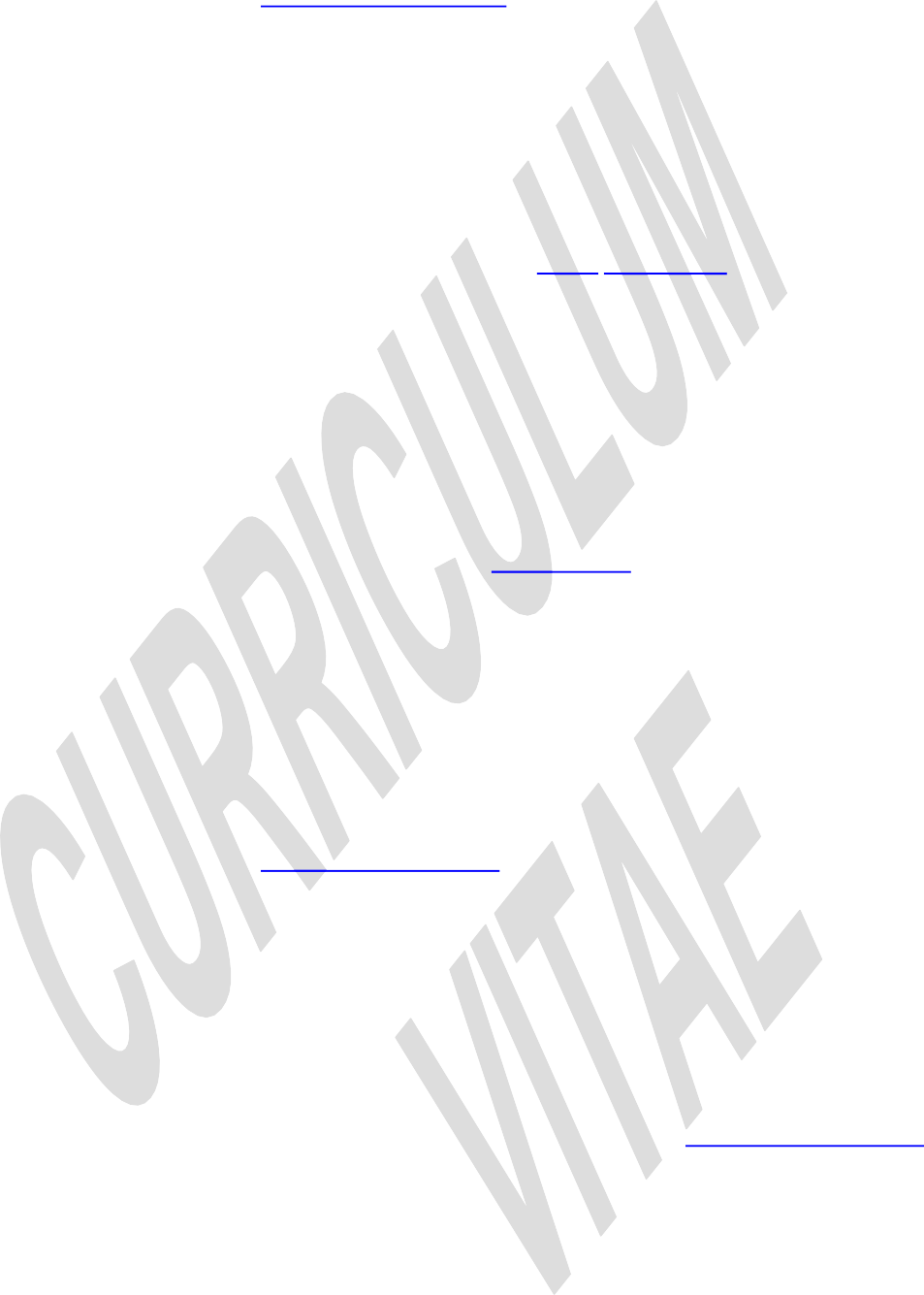
**Queen Mary University of London,** Mile End Road, London E1 4NS, UK.

[*www.elec.qmul.ac.uk*](http://www.elec.qmul.ac.uk/)

**EPSRC Advanced Research Fellow**

Theoretical and experimental studies of subwavelength imaging by means of metamaterials within the framework of EPSRC Advanced Research Fellowship.

* + - Dates (from – to)



* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities
    - Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities
    - Dates (from – to)
* Name and address of

employer

June 2005 – August 2007

Department of Electronic Engineering, **Queen Mary University of London,**

Mile End Road, London E1 4NS, UK. [*www.elec.qmul.ac.uk*](http://www.elec.qmul.ac.uk/)

**Post-doctoral Research Assistant**

Theoretical and experimental studies of metamaterials: electromagnetic crystals, left-handed media and nanostructures within the framework of EPSRC project.

November 2008 – March 2009

**Robert Bosch GmbH**, Russian R&D Center,

Shvetsova st. 41/15, 198095, St. Petersburg, Russia; [*http://www.bosch.ru*](http://www.bosch.ru/)

**Research Engineer (Consultancy)**

Research in the areas of thermoelectric materials and photovoltaic cells, analysis of alternative energy sources

December 2004 – May 2005

Mobile Communication Division, Telecommunication Network Business,

**Samsung Electronics Co., Ltd.,** #94-1, Imsoo-Dong, Gumi-City, Gyeong-Buk,

730-350, Korea; [*www.samsung.com*](http://www.samsung.com/)

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| * Occupation or position held | **Research Engineer** |
| * Main activities and responsibilities | Design and numerical simulation of antennas for mobile terminals (ultra- compact, multi-band, wideband) using artificial materials. |

* + Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities
    - Dates (from – to)
* Name and address of

employer

* Occupation or position held
  + Main activities and responsibilities

January 2001 – May 2003

Radio Laboratory, **Helsinki University of Technology**, PO. Box 3000, FIN-02015 TKK, Espoo, Finland ; [*www.hut.fi*](http://www.hut.fi/)**Researcher**

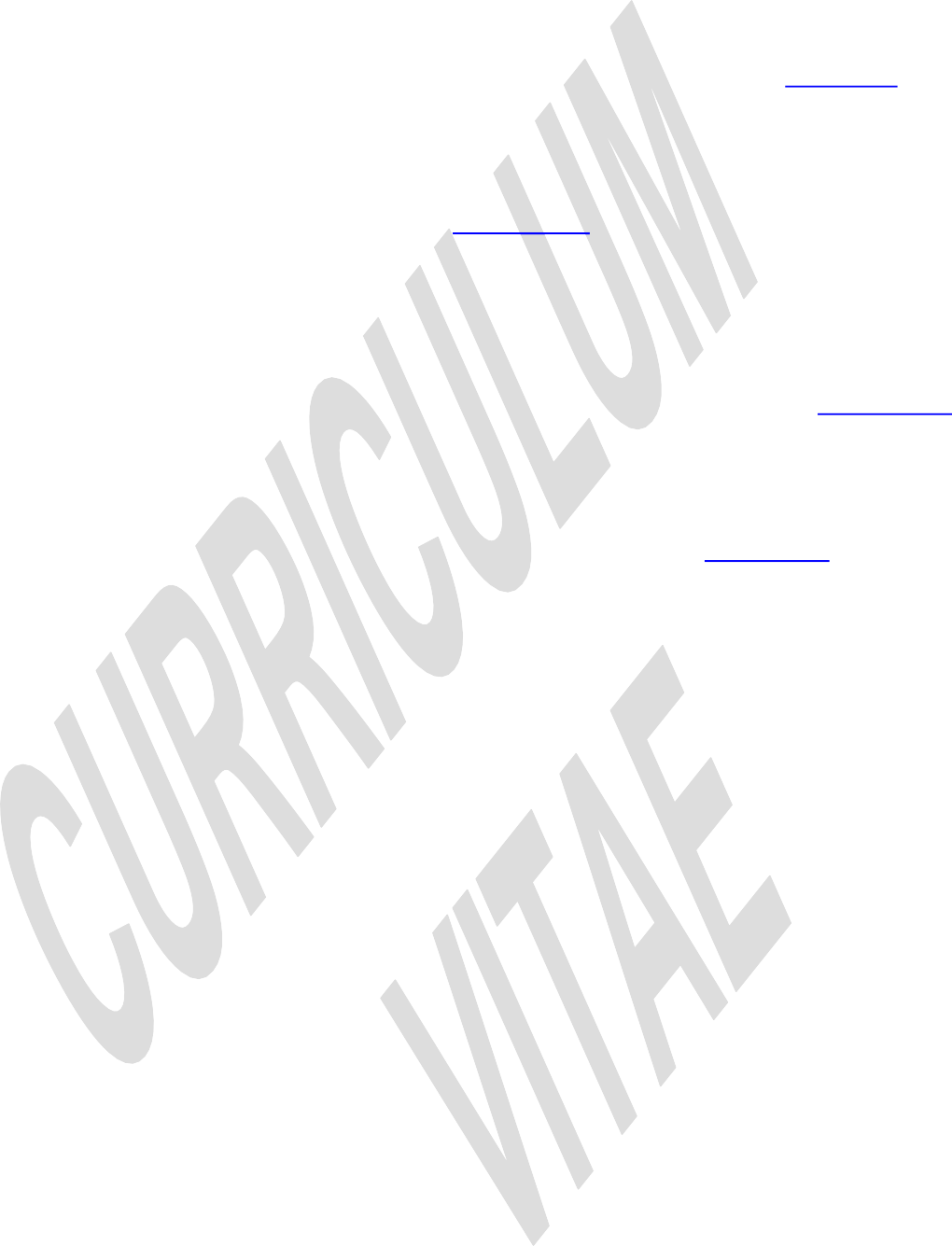
Theoretical and experimental studies of electromagnetic crystals, metamaterials and high-impedance surfaces. Participation in industrial projects (NOKIA research projects, [*www.nokia.fi*](http://www.nokia.fi/)). Design and improvement of antennas for mobile terminals and base stations. User head shielding.

February 1996 – December 2000

**St. Petersburg Institute of Fine Mechanics and Optics,** Sablinskaya st. 14, 197101, St. Petersburg, Russia; [*www.ifmo.ru*](http://www.ifmo.ru/)**Research assistant**, General Physics Department

Analytical modeling of photonic crystals and bianisotropic materials (non- reflective shields, stealth technology). Participation in research projects (Russian Foundation for Basic Research, [*www.rfbr.ru*](http://www.rfbr.ru/) ).

**RESEARCH INTERESTS AND**



**BACKGROUND**

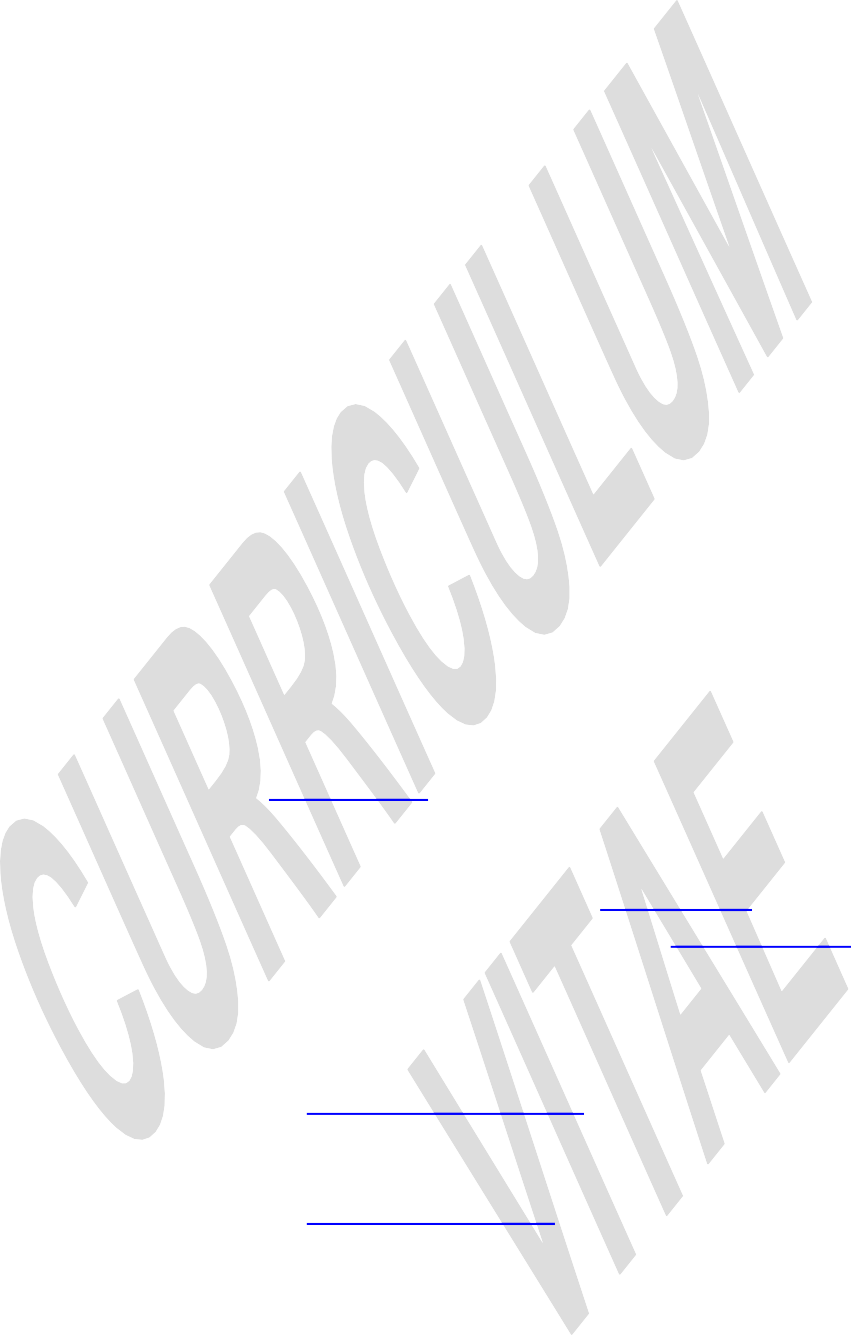
**AWARDS**

**RESEARCH GRANTS**

Metamaterials, plasmonic nanostructures, photonic and electromagnetic crystals, impedance surfaces, with emphasis on analytical, numerical (FDTD, FEM, MOM) and experimental studies of electromagnetic properties. Previously he studied: bianisotropic materials for non-reflective shields at microwave frequencies (stealth-technology), polarization transformers and frequency selective surfaces.

* Award of the Government of St. Petersburg for outstanding achievements in the field of higher education and secondary vocational education (2018)
* Award of the Government of St. Petersburg for scientific and pedagogical activity (2017)
* Premium of President of Russian Federation in science and innovation (2009)
* IET Achievement Award (IET, UK, 2006)
* International Dennis Gabor Award (Novofer foundation, Hungary, 2003)
* URSI Young Scientist Award (Belgium, 2002)
* Priority 2030 Federal Academic Leadership Program, 12 000 000 Rub/year (Russia, 2022-still valid)
* The Ministry of Education and Science of Russia (Federal Target Program), 23 400 000 Rub (Russia, 2021-2023)
* Russian Found. for Basic Research, 15 000 000 Rub (Russia, 2019-2022)
* Grant of The Ministry of Education and Science of Russia (Federal Target Program), 30 000 000 Rub (Russia, 2017-2019)
* The Ministry of Education and Science of Russia, 30 000 000 Rub (Russia, 2017-2019)
* The Ministry of Education and Science of Russia (Horizon2020), 30 000 000 Rub (Russia, 2017-2019)
* The Ministry of Education and Science of Russia (BRICS), 21 000 000 Rub (Russia, 2017-2019)
* Russian Science Foundation, 25 500 000 Rub (Russia, 2015-2017)
* Grant of President of Russian Federation for governmental support of young scientists, Doctors of Sciences, 2 000 000 Rub (Russia, 2015-2016)

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| **RESEARCH GRANTS** | * Grant of Russian Foundation for Basic Research, 3 000 000 Rub (Russia, 2014-2016) * Program for Enhancing the Competitiveness ("5-100" Project), 300 000 000 Rub (Russia, 2013-2020) * Action 1.2.1 grant of Federal Targeted Programme “Scientific and Scientific- Pedagogical Personnel of the Innovative Russia in 2009-2013”, Ministry of Education and Science of Russian Federation, 3 500 000 Rub (2009-2011) * Action 2.1.1 grant of Analytical Ministerial Targeted Programme “Development of scientific potential of high school in 2009-2011”, Ministry of Education and Science of Russian Federation, 7 024 556 Rub (2009-2011) * Grant of President of Russian Federation for governmental support of young scientists, Candidates of Sciences, 1 200 000 Rub (Russia, 2009-2010) and 300 000 Rub (Russia, 2005-2006) * EPSRC Advanced Research Fellowship, 483 771£ (UK, 2007-2012) |
| **TRAVEL GRANTS** | * Presidential Lecturer (OIST, Japan, 2019) * Invited Sackler Lecturer (TAU, Israel, 2018) * Erasmus Europhotonics Visiting Professor (Fresnel Institute, France, 2015) * Two SPIE Visiting Lecturer Grants (USA, both 2009) * OSA Distinguished Visiting Lecturer Award (USA, 2008) * Raj Mittra Travel Grant (USA, 2008) * Researcher Exchange Grant, British Council, 3 890 £ (UK, 2007) * International Travel Grant, Royal Academy of Engineering (UK, 2005) * Travel Grant of Russian Foundation of Basic Research (Russia, 2004) * Travel Grant of Federal Program «Integration» (Russia, 2000, 2003) * SPIE Travel Grant (USA, 2002) |
| **MEMBERSHIP IN PROFESSIONAL SOCIETIES**  **AND COMISSIONS** | A member of IEEE (Institute of Electrical and Electronics Engineers, [www.ieee.org](http://www.ieee.org/)) AP-S (Antennas and Propagation Society, [www.ieeeaps.org](http://www.ieeeaps.org/)), MTT-S (Microwave Theory and Techniques Society, [www.mtt.org](http://www.mtt.org/)),  SPIE (International Society for Optics and Photonics, [www.spie.org](http://www.spie.org/)), OSA (Optical Society of America, [www.osa.org](http://www.osa.org/)), ISMRM (International Society for Magnetic Resonance in Medicine, [www.ismrm.org](http://www.ismrm.org/)).  A member of Higher attestation commission at the Ministry of Science and Higher Education of the Russian Federation, Expert Council for Physics |
| **ORGANIZATION OF CONFERENCES** | * General Chair of Annual International Conference “Metanano”, Russia [http://metanano.ifmo.ru/](http://metanano.ifmo.ru/%20) (since 2016, every year) * Organizer of the Workshop on Metamaterials of Annual International Conference “Days on Diffraction”, St. Petersburg, Russia <http://math.nw.ru/DD/>(since 2006, every year) * Local chair of 6th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (Metamaterials 2012), St. Petersburg, Russia, 17-22 September 2012, <http://congress2012.metamorphose-vi.org/> |
| **REVIEWING FOR JOURNALS** | * Science, Physical Review Letters, Physical Review A, B and E * Optics Express, Optics Letters, Journal of Optics A: Pure and Applied Optics * Journal of Optical Society of America A and B, Journal of Nanophotonics, * New Journal of Physics, Applied Physics Letters, Metamaterials, * Photonics and Nanostructures - Fundamentals and Applications * IEEE Trans. Antennas & Propagation, IEEE Antennas & Wireless Prop. Lett. * IET Proc. Microwaves, Antennas & Propagation |
| **SCIENTIFIC OUTPUT**  *Page 5 - Curriculum vitae of*  *Dr. Pavel A. Belov* | Author of more than 260 papers in scientific journals, 18 book chapters, and more than 300 reports at international conferences. |



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| **PHD STUDENT SUPERVISION** | * Alexander Krasnok (2013) * Alexey Orlov (2015) * Alexander Chebykin (2016) * Maxim Gorlach (2017) * Konstantin Ladutenko (2017) * Alexey Slobozhanyuk (double program with Australian National University, 2017) * Sergei Kosulnikov (double program with Aalto University, 2017) * Mikhail Omelyanovich (double program with Aalto University, 2018) * Pavel Voroshilov (double program with Aalto University, 2018) * Eugene Koreshin (expected 2023) * Rustam Balafendiev (expected 2024) |

List of publications of Dr. Pavel A. Belov

# Papers in referred journals:

2024

1. Y. Li, S. Wan, S. Deng, Z. Deng, B. Lv, C. Guan, J. Yang, A. Bogdanov, P. Belov, J. Shi "Independent control of circularly polarized light with exceptional topological phase coding metasurfaces", *Photonics Research*, Vol. 12, No. 3, pp. 534-542, 2024
2. Jim A. Enriquez, R. Balafendiev, A. J. Millar, C. R. Simovskii, P. Belov "Uniform Field in Microwave Cavities Through the Use of Effective Magnetic Walls", *Physical Review Applied*, 2024
3. Jim A. Enriquez, E. Koreshin, J. P. Del Risco, P. Belov, J. Domingo Baena "Dispersion characteristics of a glide-symmetric square-patch metamaterial with giant anisotropy", *Physical Review B*, vol. 110, 2024
4. D. Sakhno, R. Balafendiev, P. Belov "Anisotropy in a wire medium resulting from the rectangularity of a unit cell", *Physical Review B*, vol. 110, 2024
5. Yi. Li, S. Wan, R. Zhao, Z. Zhu, W. Li, C. Guan, J. Yang, A. Bogdanov, P. Belov, Jinhui Shi "Huygens’ metasurface: from anomalous refraction to reflection", *Optics Communications*, pp. 130648, 2024

2023

1. N. Kowitt, R. Balafendiev, D. Sun, M. Wooten, A. Droster, M. Gorlach, K. van Bibber, P. Belov "Tunable wire metamaterials for an axion haloscope", *Physical Review Applied*, Vol. 20, pp. 044051, 2023.
2. R. Gaponenko, M. Sidorenko, D. Zhirihin, I. Rasskazov, A. Moroz, K. Ladutenko, P. Belov, A. Shcherbakov "Experimental demonstration of superdirective spherical dielectric antenna", *Journal of Applied Physics,* Vol. 134, pp. 014901, 2023.
3. A. Larin, Y. Sun, A. Mozharov, E. Ageev, O. Pashina, F. Komissarenko, I. Mukhin, M. Petrov, S. Makarov, P. Belov, D. Zuev "All-optical generation of static electric field in a single metal- semiconductor nanoantenna", *Light: Science and Applications*, Vol. 12, pp. 137, 2023.
4. Y. Sun, D. Zhao, Z. Zhang, N. Garg, B.V. Bogdanov, P.R. Senyushkin, M. Su, D.A. Zuev, S. Kumar,

A.K. Ganguli, Y. Song, P. Belov "Green printed hybrid optical dielectric nanostructures on a mirror",

*Photonics and Nanostructures - Fundamentals and Applications*, Vol. 55, pp. 101147, 2023.

1. Sakhno D., E. Koreshin, P. Belov "Controlling the dispersion of longitudinal waves via the affine deformation of the interlaced wire medium", *Photonics and Nanostructures - Fundamentals and Applications*, Vol. 55, pp. 101150, 2023.
2. E. Koreshin, I. Matchenya, G. Karsakov, D. Ilin, I. Iorsh, P. Belov "Electrostatic screening in a wire medium", *Physical Review B*, Vol. 107, No. 11, pp. 115170, 2023.
3. A. Millar, S. Anlage, R. Balafendiev, P. Belov, K. Van Bibber, J. Conrad, M. Demarteau, A. Droster, K. Dunne, A. Rosso, J. Gudmundsson, H. Jackson, G. Kaur, T. Klaesson, N. Kowitt, M. Lawson, A. Leder,

A. Miyazaki, S. Morampudi, H. Peiris, H. Roising, G. Singh, D. Sun, J. Thomas, F. Wilczek, S. Withington, M. Wooten, J. Dilling, M. Febbraro, S. Knirck, C. Marvinney "Searching for dark matter with plasma haloscopes", *Physical Review D*, Vol. 107, No. 5, pp. 055013, 2023.

2022

1. E. Koreshin, D. Sakhno, N.A. Olekhno, A.N. Poddubny, P. Belov "Emulating quantum photon-photon interactions in waveguides by double-wire media", *Photonics and Nanostructures - Fundamentals and Applications*, Vol. 53, pp. 101104, 2022.
2. A. Mikhailovskaya, K. Grotov, D. Vovchuk, A. Machnev, D.A. Dobrykh, R.E. Noskov, K. Ladutenko,

P.A. Belov, P.B. Ginzburg "Superradiant Scattering Limit for Arrays of Subwavelength Scatterers",

*Physical Review Applied*, Vol. 18, No. 5, pp. 054063, 2022.

1. K.V. Baryshnikova, S.S. Kharintsev, P.A. Belov, N.A. Ustimenko, S.A. Tretyakov, C.R. Simovski "Metalenses for subwavelength imaging", *Physics-Uspekhi*, Vol. 65, No. 4, pp. 355-378, 2022.
2. D. Sakhno, E. Koreshin, P. Belov "Quadraxial metamaterial", Optics Letters, vol. 47, pp.4451, 2022.
3. R. Balafendiev, C. Simovski, A.J. Millar, P. Belov "Wire metamaterial filled metallic resonators",

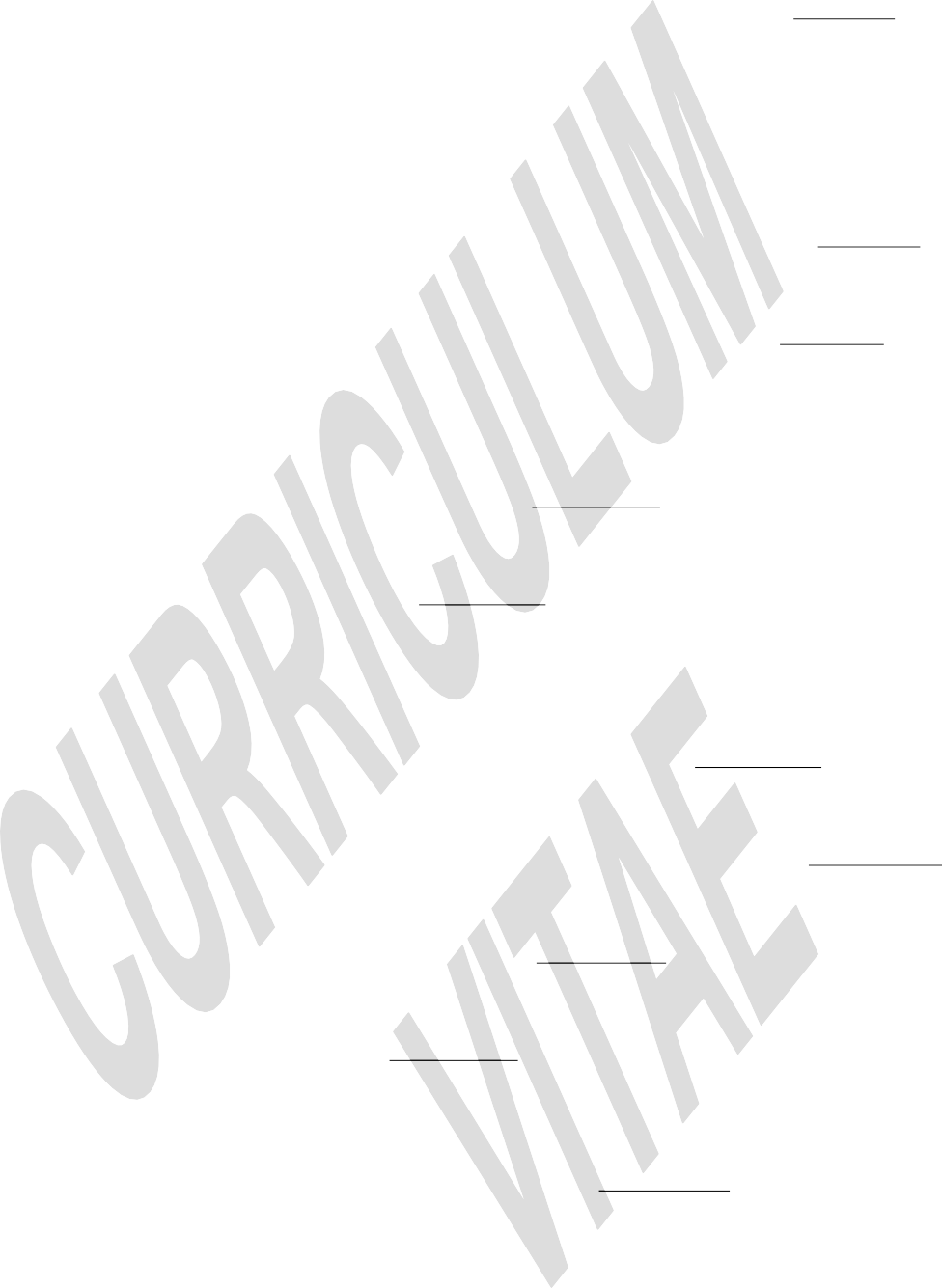
*Physical Review B*, vol. 106, 2022.

1. S. Wan, K. Wang, F. Wang, C. Guan, Wenjiaa Li, Jianlonga Liu; A. Bogdanov, P. Belov "Topologically enabled ultrahigh-Q chiroptical resonances by merging bound states in the continuum", *Optics Letters*, vol. 47, pp. 3291, 2022.
2. Zhu Yining, Luo Hao, Yang Chenying, Qin Bing, Ghosh Pintu, Kaur Sandeep, Shen Weidong, Qiu Min,

P. Belov, Li Qiang "Color-preserving passive radiative cooling for an actively temperature-regulated enclosure", *Light: Science and Applications*, 11(1), 122, 2022.

1. K. Grotov, D. Vovchuk, S. Kosulnikov, I. Gorbenko, L. Shaposhnikov, K. Ladutenko, P. Belov, P. Ginzburg "Genetically Designed Wire Bundle Super-Scatterers", *IEEE Transactions on Antennas and Propagation*, Vol. 70, No. 10, pp. 9621 - 9629, 2022.
2. M. A. C. Moussu, R. Abdeddaim, M. Dubois, E. Georget, A. G. Webb, E. Nenasheva, P. Belov, S. Glybovski, L. Ciobanu, S. Enoch "Reply to Comments on “A Semi-Analytical Model of High- Permittivity Dielectric Ring Resonators for Magnetic Resonance Imaging", *IEEE Transactions on Antennas and Propagation*, vol. 70, pp. 3131-3131, 2022.
3. V. Vorobyev, A. Shchelokova, A. Efimtcev, J.D. Baena, R. Abdeddaim, P. Belov, I.V. Melchakova, S. Glybovski “Improving B1+ homogeneity in abdominal imaging at 3 T with light, flexible, and compact metasurface”, *Magnetic Resonance in Medicine*, Vol. 87, No. 1, pp. 496-508, 2022.
4. S. Kosulnikov, D. Vovchuk, E. Roman, A. Machnev, V. Kozlov, K. Grotov, K. Ladutenko, P. Belov, P. Ginzburg "Circular wire-bundle superscatterer", *Journal of Quantitative Spectroscopy and Radiative Transfer*, vol. 279, pp. 108065, 2022.

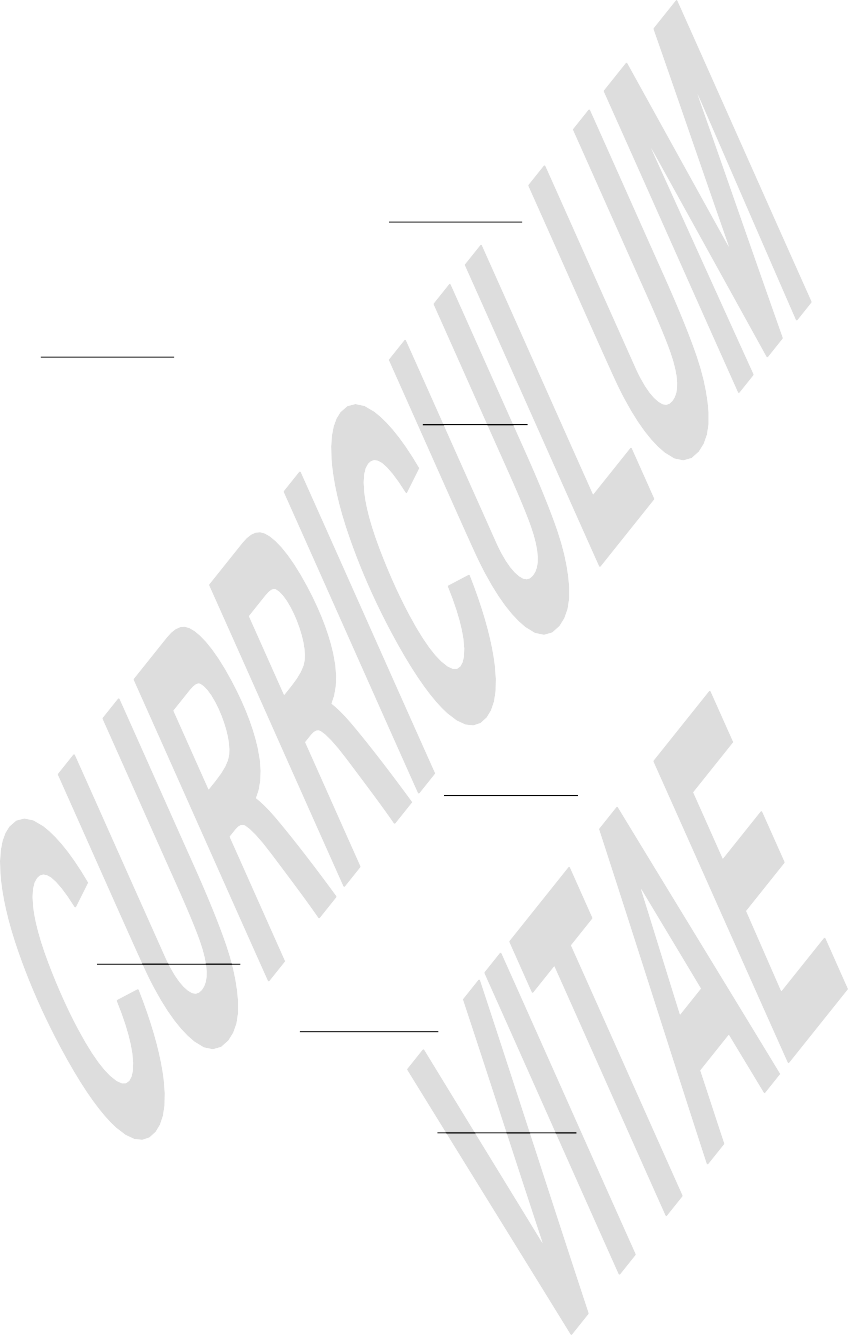
2021

1. M. Song, P. Jayathurathnage,. E. Zanganeh, M. Krasikova, P. Smirnov, P. Belov, P. Kapitanova, C. Simovski, S. Tretyakov, A. Krasnok “Wireless power transfer based on novel physical concepts”, *Nature Electronics,* vol. 4, pp. 707-716, 2021.
2. D. Sakhno, E. Koreshin, P. Belov “Longitudinal electromagnetic waves with extremely short wavelength”, *Physical Review B*, vol. 104, 2021.
3. A. Slobozhanyuk, A. Shchelokova, A. V. Kozachenko, I. Melchakova, A. J.E. Raaijmakers, C. A.T. van den Berg, P. Belov, A. G. Webb “Visualization of Metasurface Eigenmodes with Magnetic Resonance Imaging”, *Physical Review Applied*, vol. 16, 2021.
4. D. Hmelevskaya, D. Markina, V. V. Fedorov, G. A. Ermolaev, A. V. Arsenin, V. S. Volkov, A. S. Goltaev, Yu. M. Zadiranov, I. Tzibizov, A. Pushkarev, A. Samusev, A. Shcherbakov, P. Belov, I. Mukhin, S. Makarov “Directly grown crystalline gallium phosphide on sapphire for nonlinear all- dielectric nanophotonics“, *Applied Physics Letters*, vol. 118, pp. 201101, 2021.
5. S. A. Kuznetsov, V. Lenets, M. Tumashov, A.Sayanskiy, P. A. Lazorskiy, P. Belov, J. D. Baena, S. Glybovski “Self-complementary metasurfaces for designing terahertz deflecting circular-polarization beam splitters”, *Applied Physics Letters*, vol. 118, pp. 131601, 2021.
6. P. Tonkaev, S. Anoshkin, A. Pushkarev, R. Malureanu, M. Masharin, P. Belov, A. Lavrinenko, S. Makarov “Acceleration of radiative recombination in quasi-2D perovskite films on hyperbolic metamaterials”, *Applied Physics Letters*, vol. 118, pp. 091104, 2021.

2020

1. P.V. Kapitanova, E. Zanganeh, N. Pavlov, M. Song, P.A. Belov, A.B. Evlyukhin, A.E. Miroshnichenko "Seeing the Unseen: Experimental Observation of Magnetic Anapole State Inside a High-Index Dielectric Particle", *Annalen der Physik*, Vol.532, pp. 2000293, 2020.
2. N.D. Pavlov, I. Stenishchev, A. Ospanova, P.A. Belov, P.V. Kapitanova, A. Basharin “Toroidal Dipole Mode Observation In Situ“, *Physica status solidi (b)*, Vol. 257, No. 3, pp. 1900406, 2020.
3. M. Song, A. Krasnok, R. Yafyasov, P.A. Belov, P.V. Kapitanova “Obstruction tolerant metasurface-based wireless power transfer system for multiple receivers”, *Photonics and Nanostructures - Fundamentals and Applications*, Vol. 41, pp. 100835, 2020.
4. M. Song, P. Smirnov, E.M. Puhtina, E. Zanganeh, S.B. Glybovski, P.A. Belov, P.V. Kapitanova “Multi- mode metamaterial-inspired resonator for near-field wireless power transfer”, *Applied Physics Letters*, Vol. 117, No. 8, pp. 083501, 2020.
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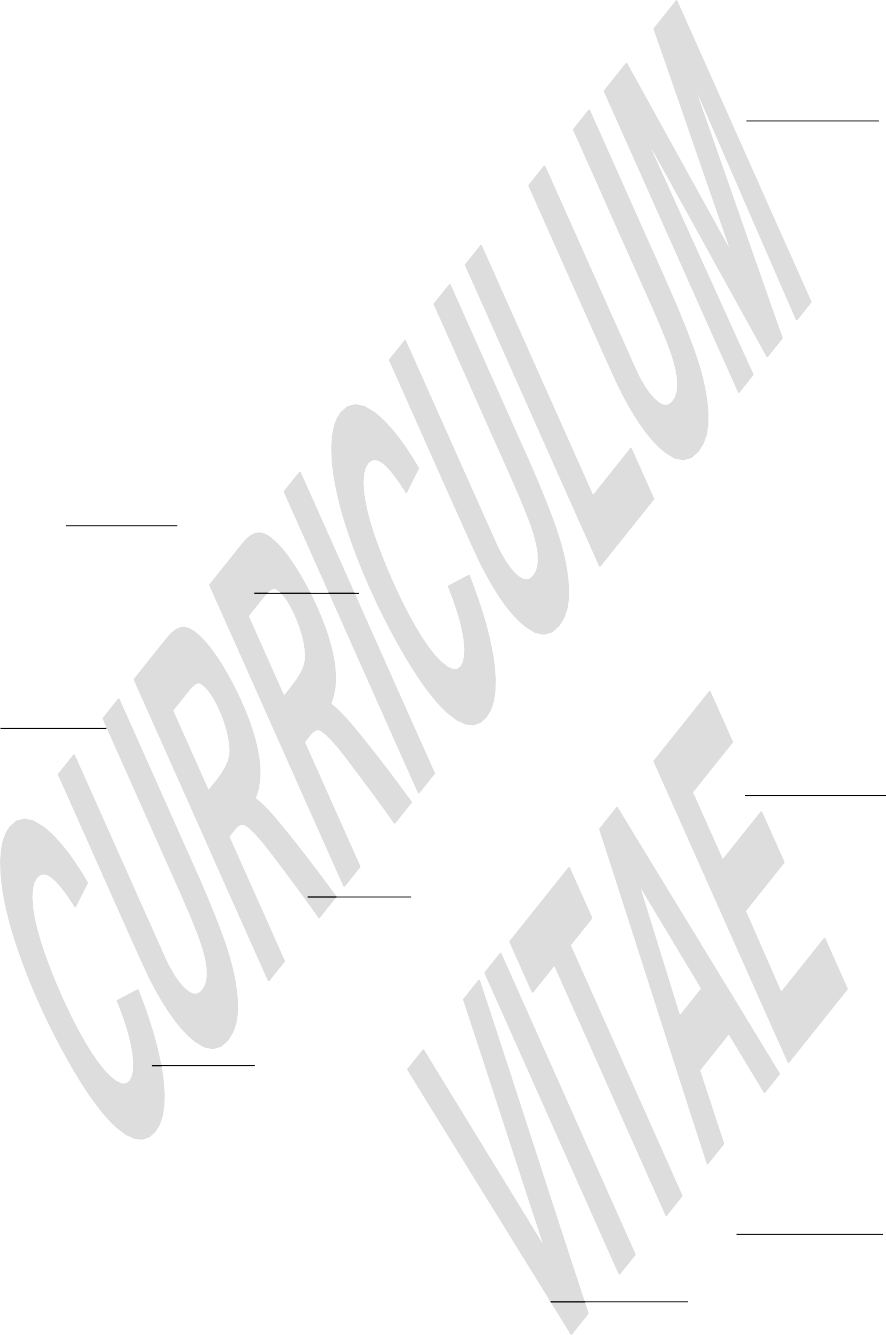
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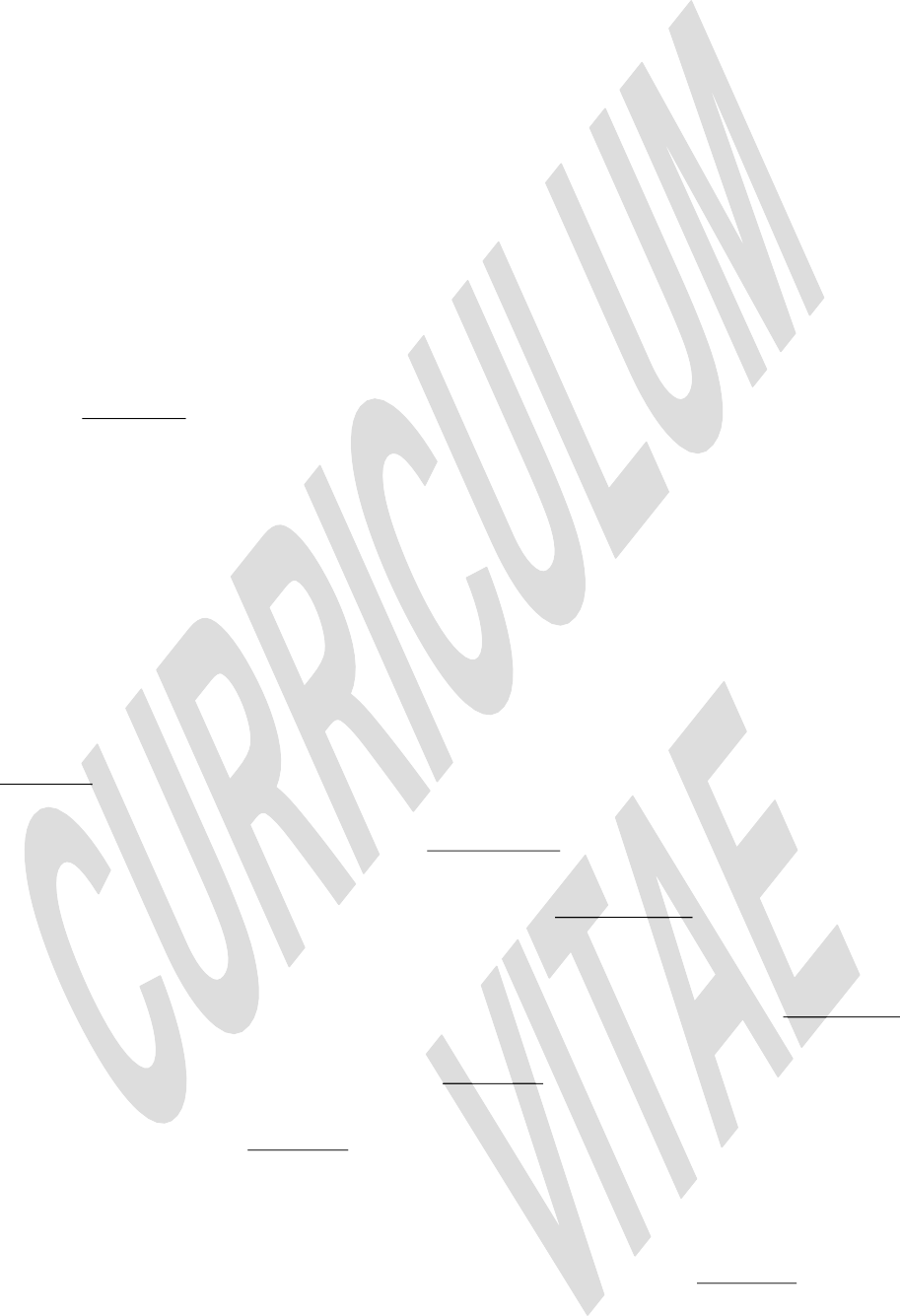
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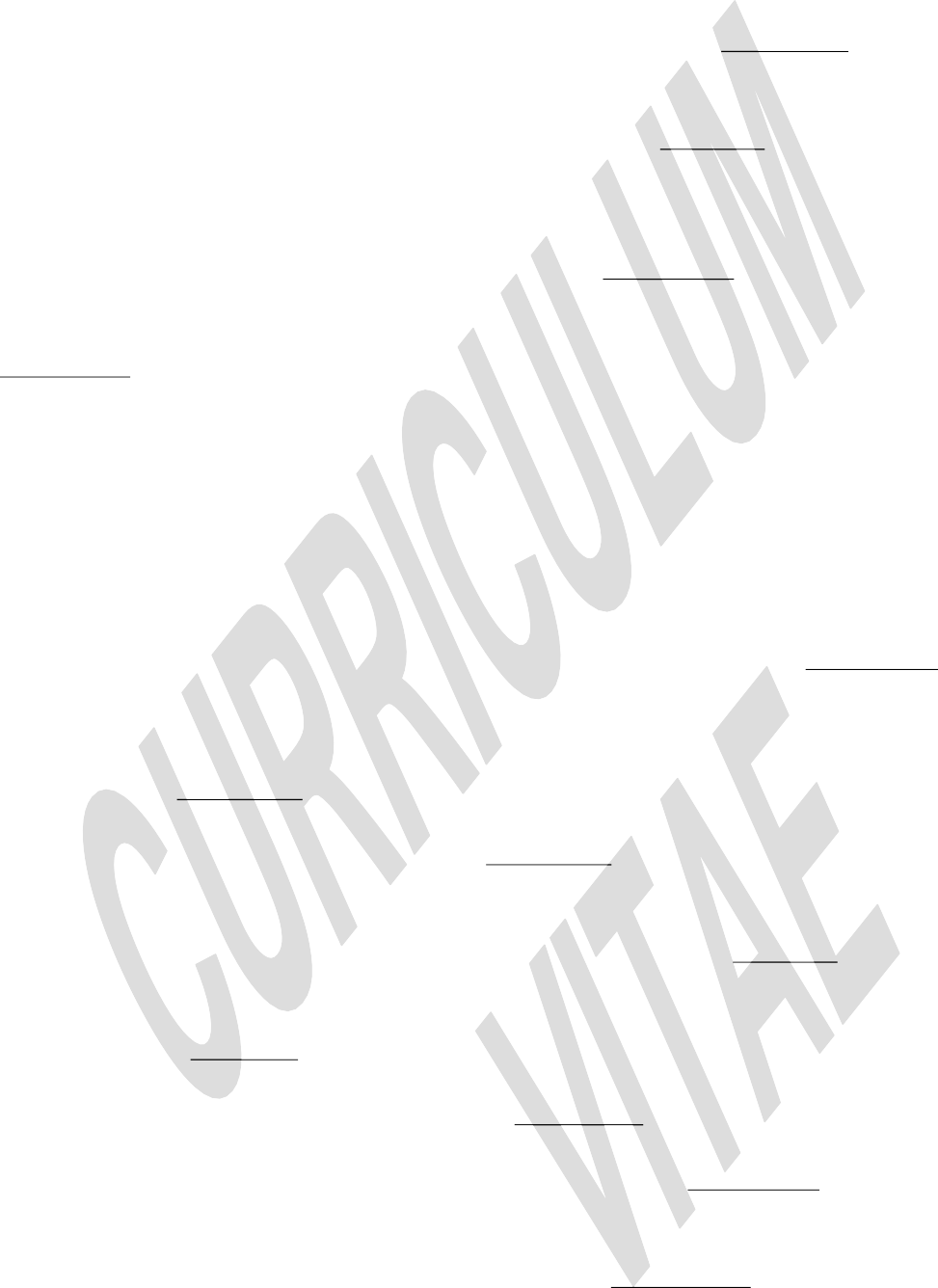
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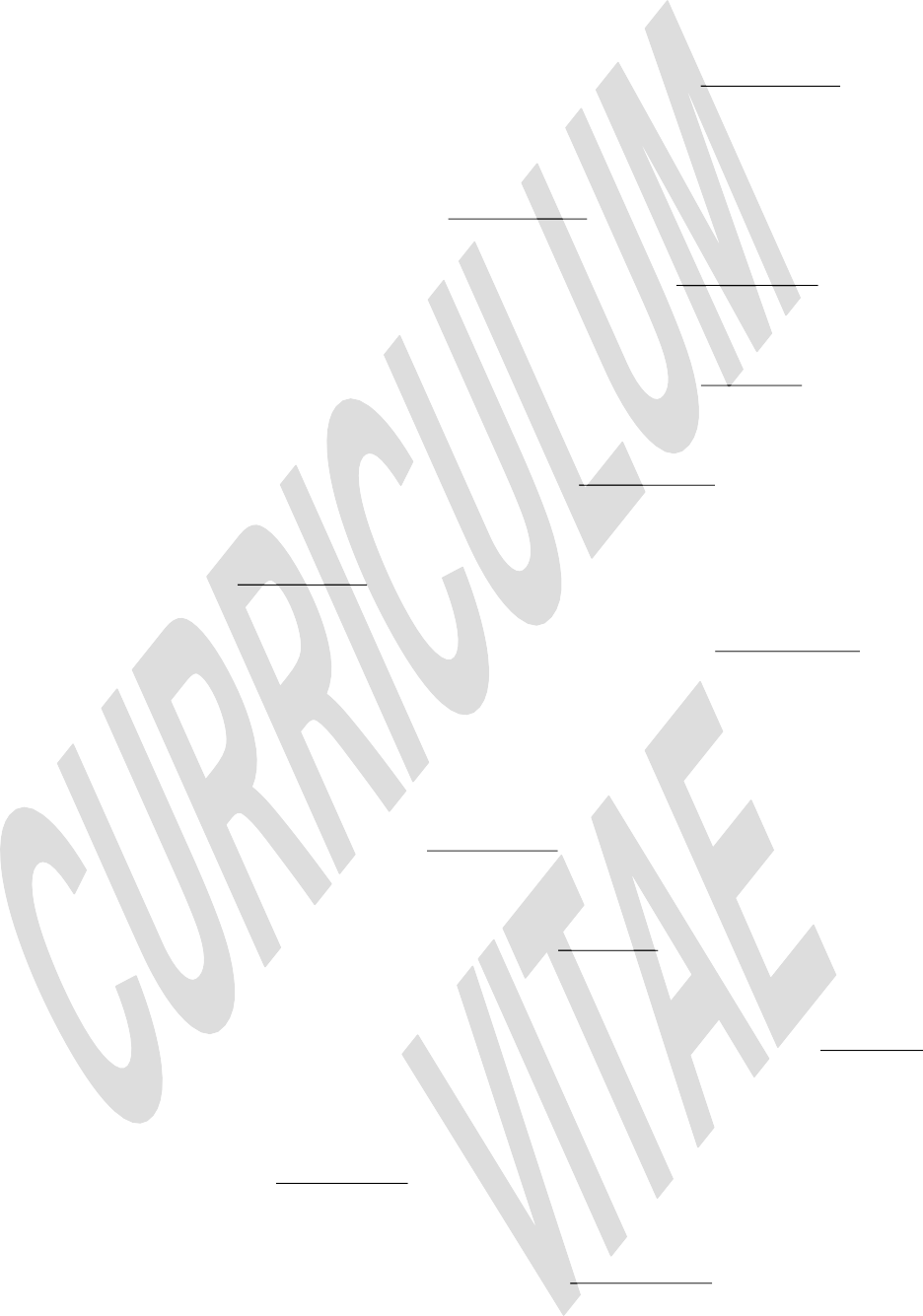
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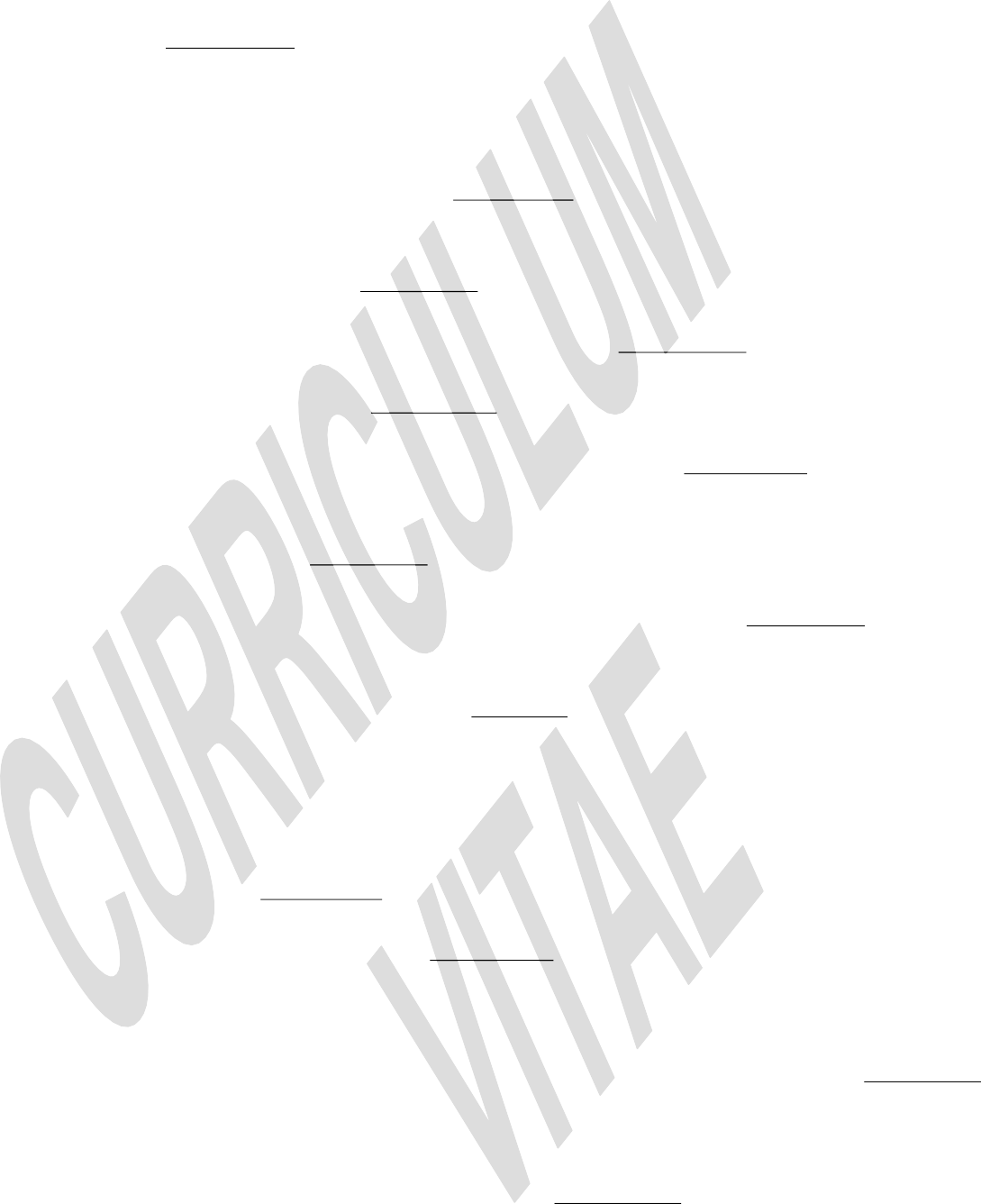
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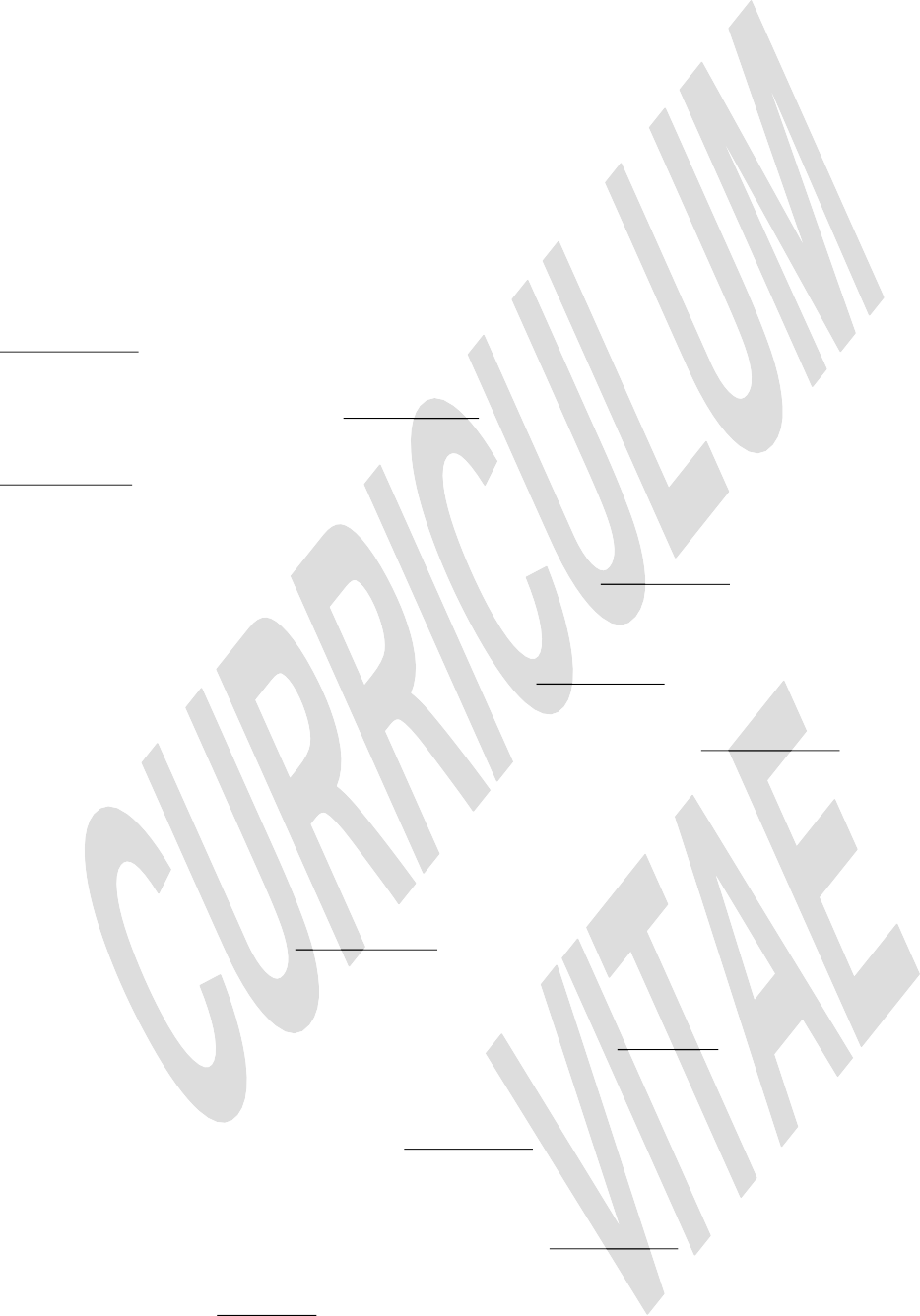
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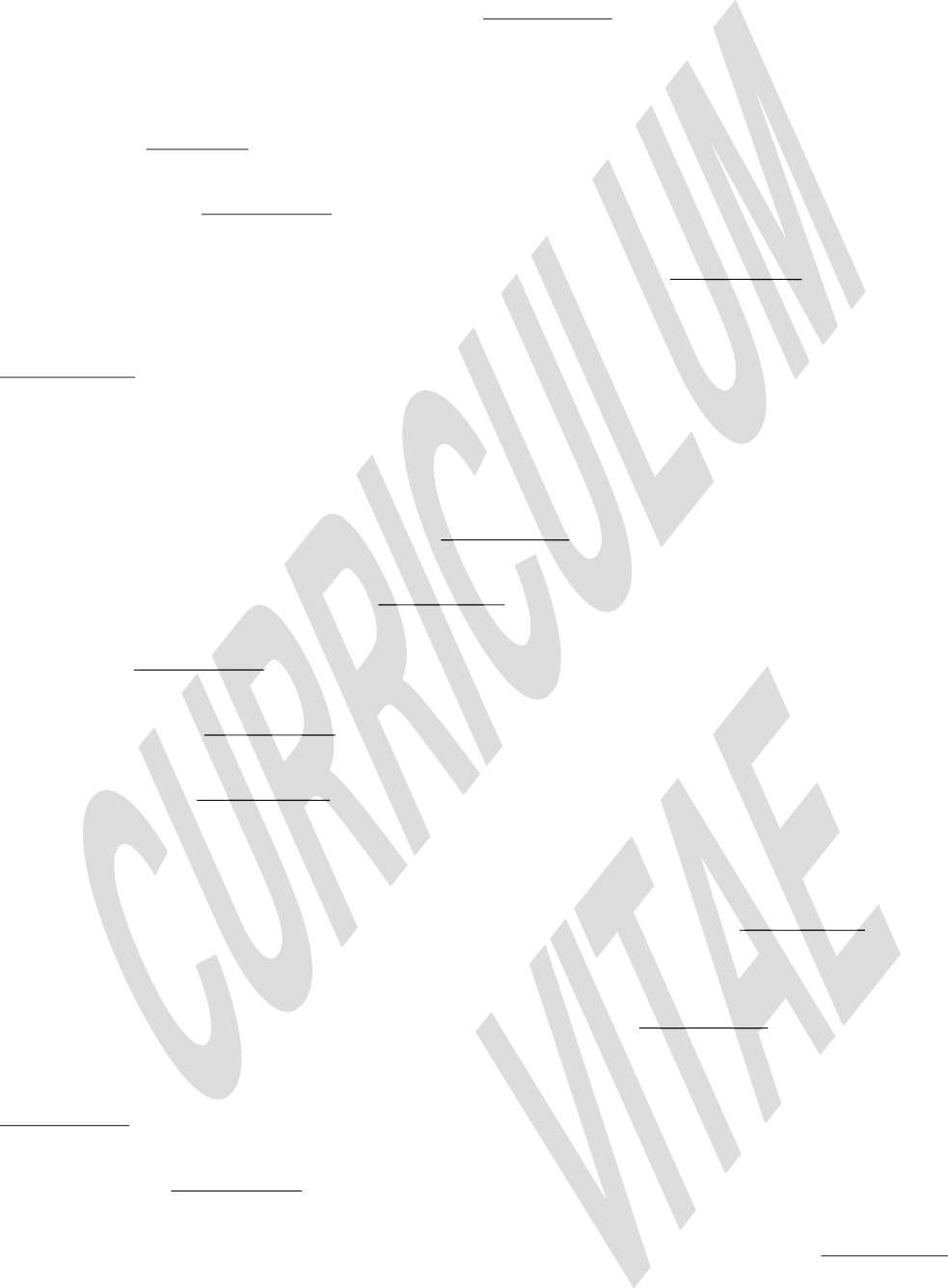
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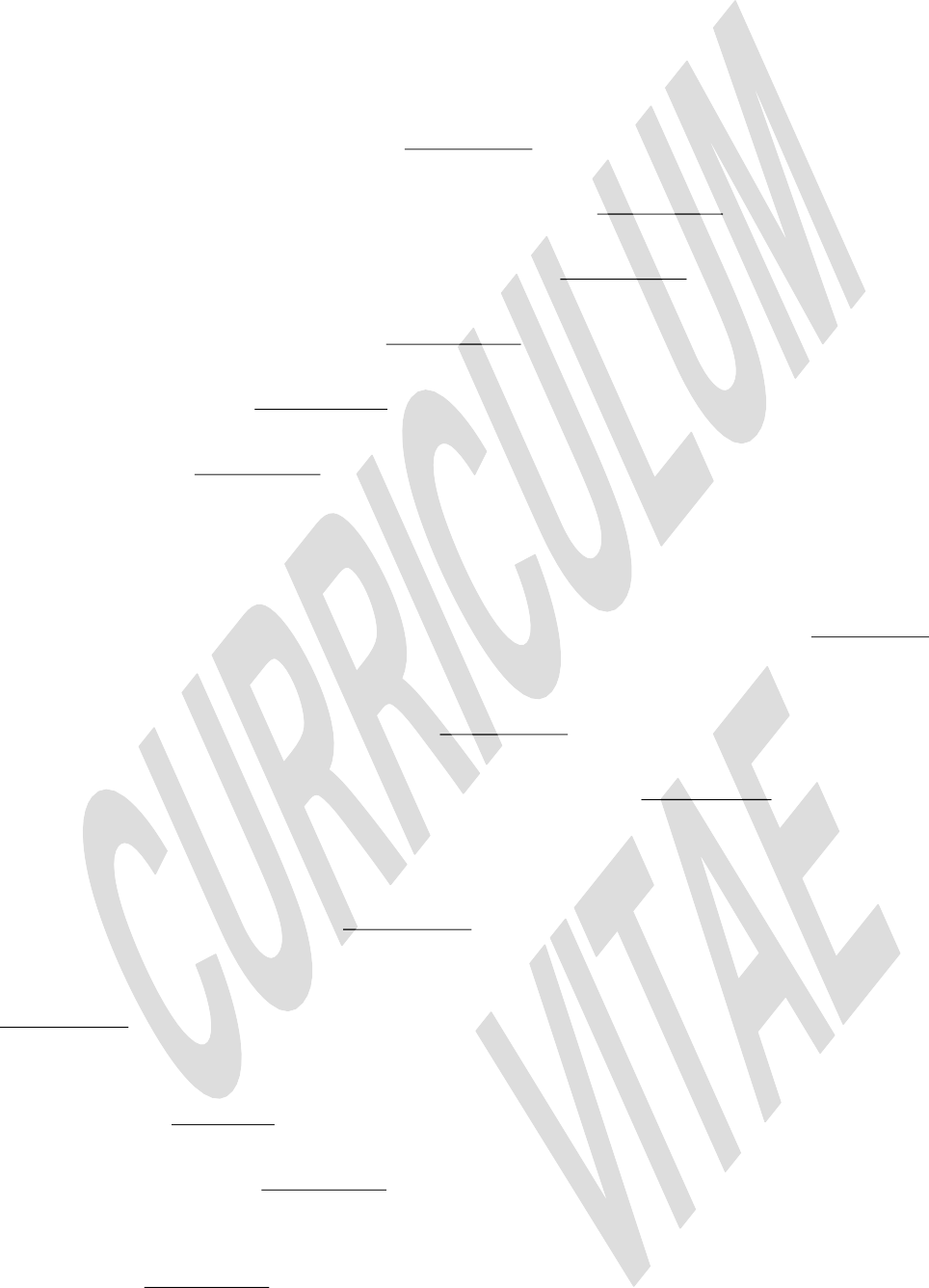
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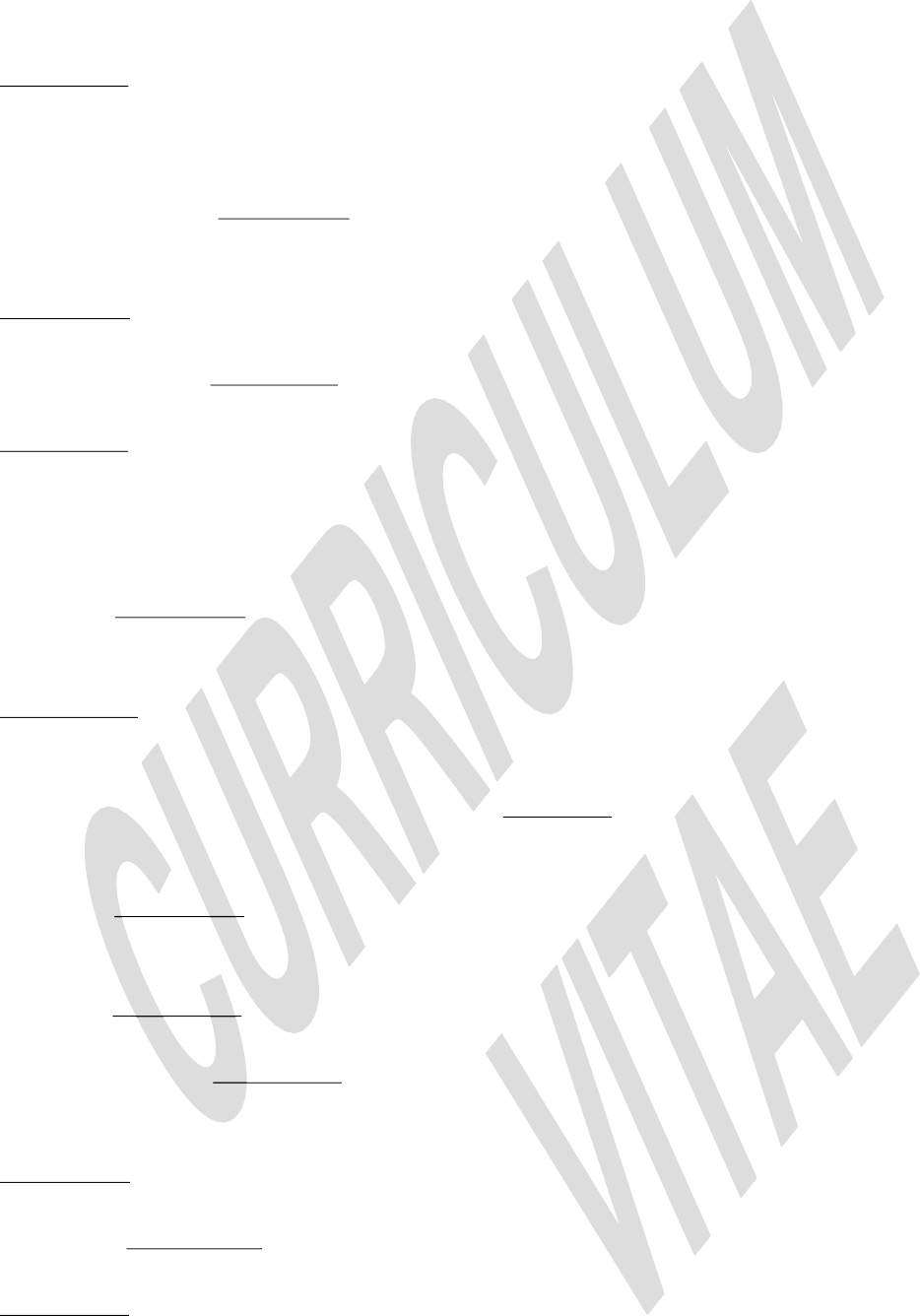
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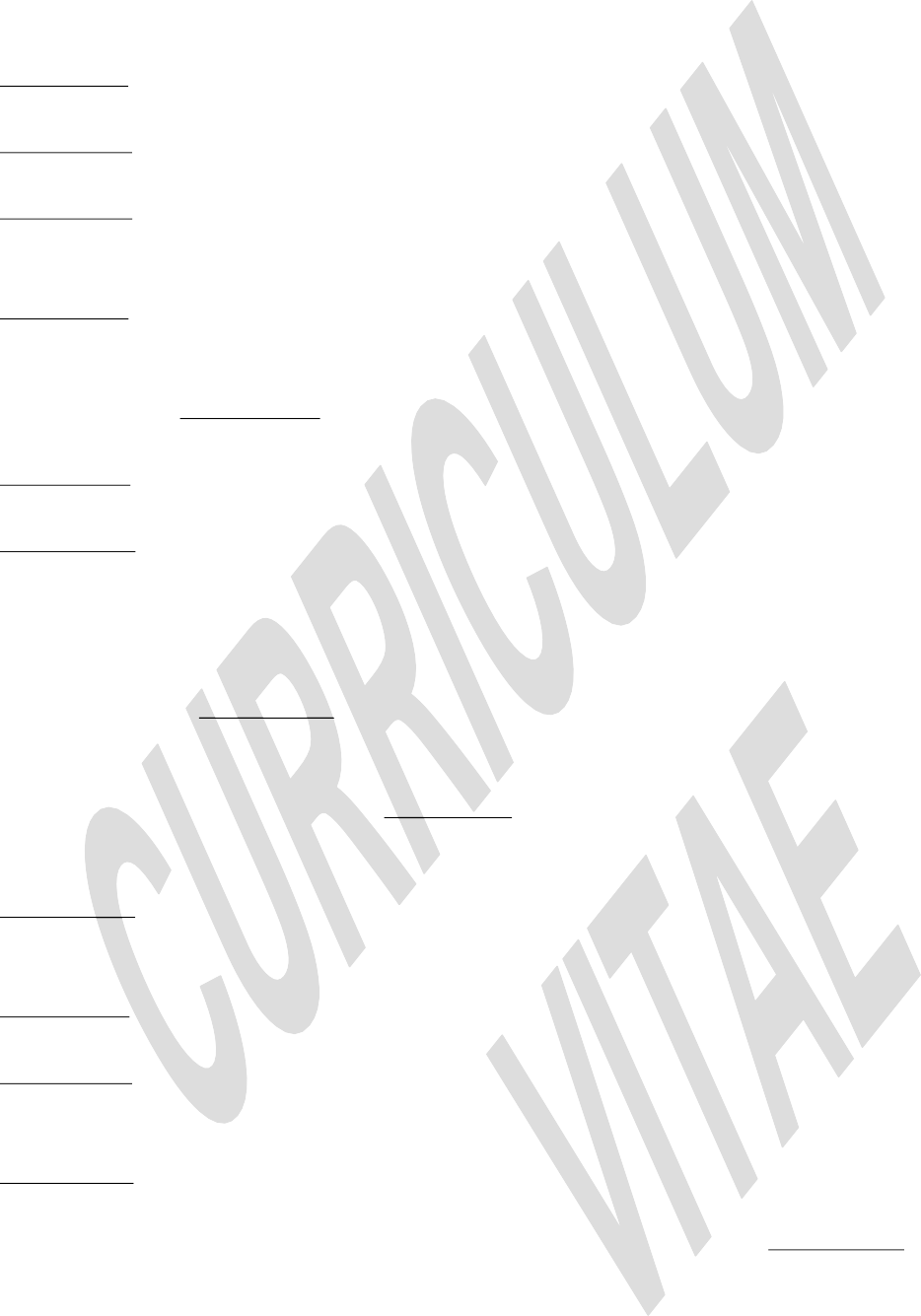
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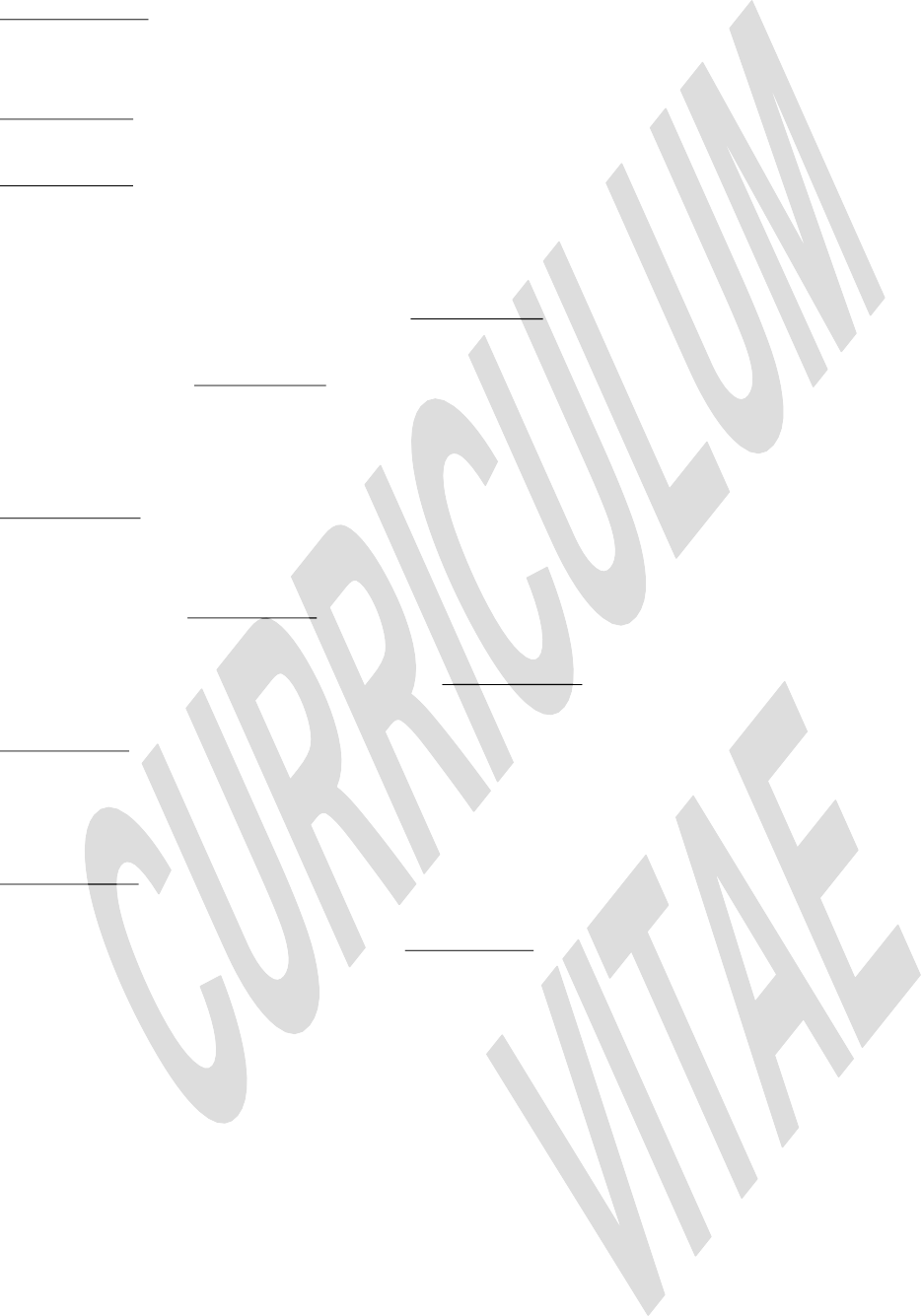
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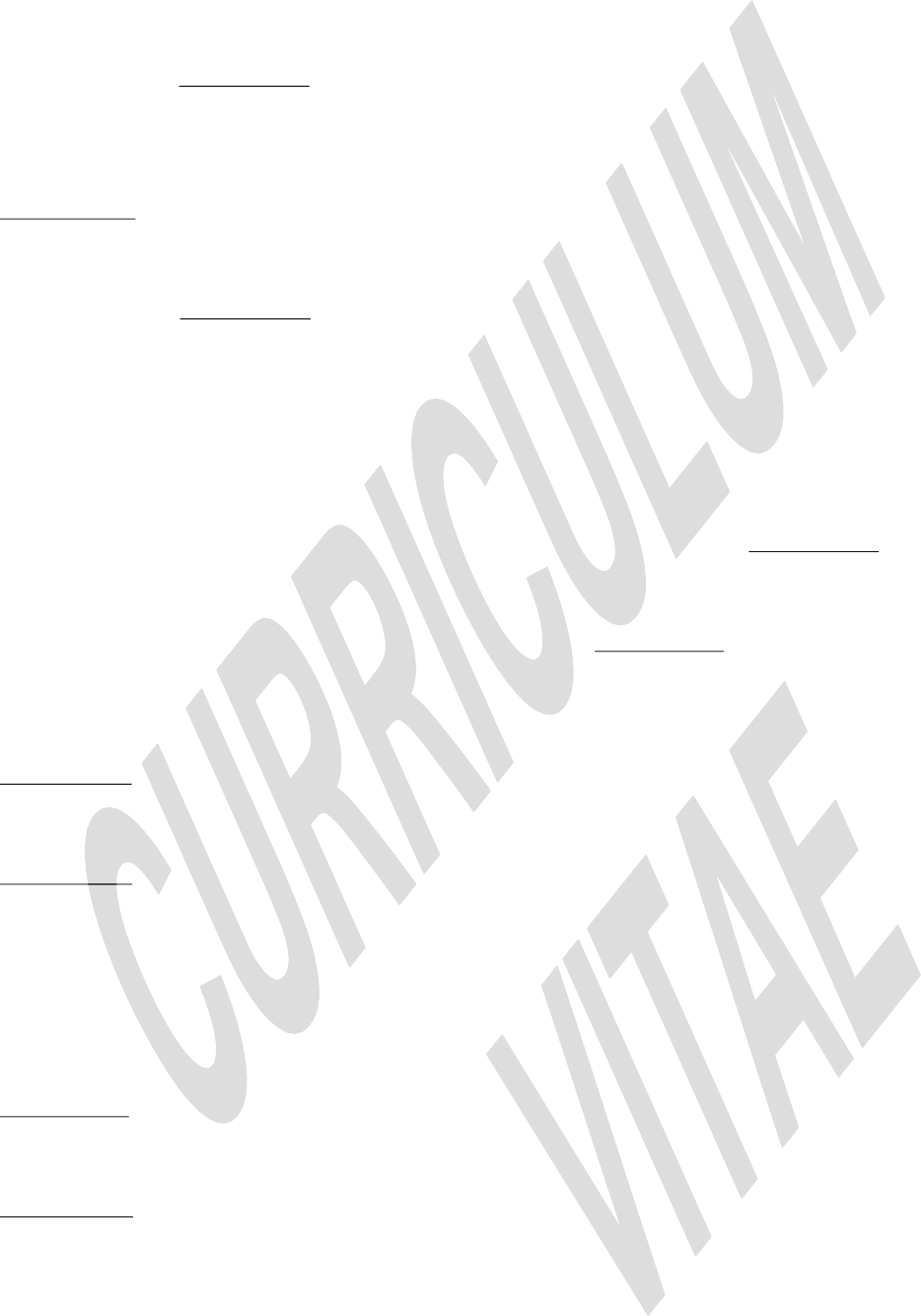
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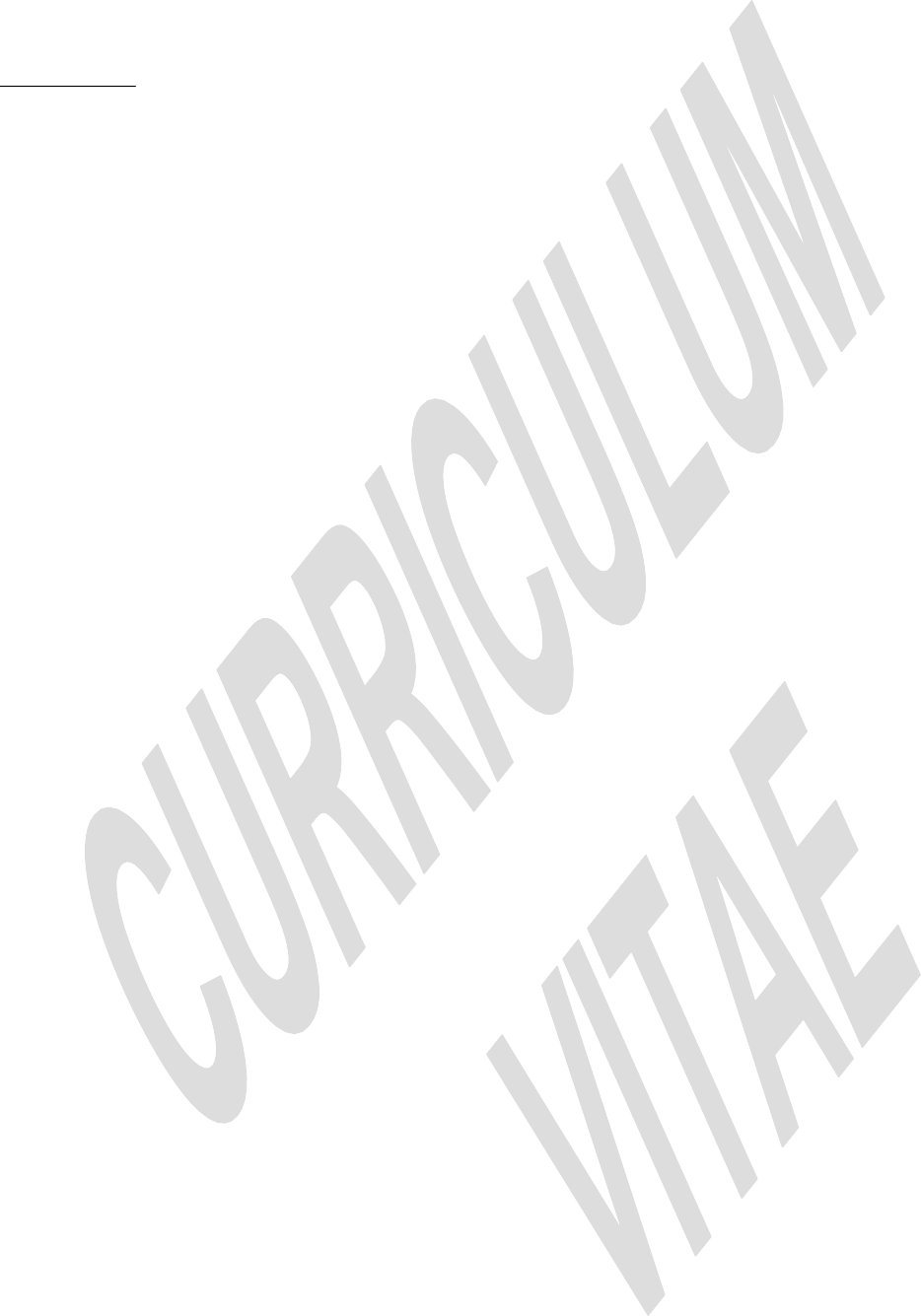
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***Conference presentations:***

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1. Jim A. Enriquez, J. Domingo Baena, P. Belov "Exploring Dispersion Characteristics of a Glide-Symmetric Square Patch Metamaterial", 2024 Eighteenth International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials), September 9-14, 2024, Crete, Greece
2. G. Zmaga, A. Kuzmin, Y. Sun, Qi. Pan, M. Su, Y. Song, D. Zuev, P. Belov "Molecular detection using plasmonic nanostructures of particular geometry", 2024 International Conference Laser Optics (ICLO), July 1-5, 2024, Saint-Petersburg, Russia
3. P. Belov, A. Jandaliyeva, N. Mikhailov, A. Vdovenko, M. Siganov, E. Maiorov, P. Seregin and A. Shchelokova "Room-Sized Helmholtz-Type Resonator for Ubiquitous Wireless Power Transfer", IEEE Wireless Power Technology Conference and Expo (WPTCE2024), May 8-11, 2024, Kyoto, Japan
4. A. Jandaliyeva, A. Vdovenko, M. Siganov, L. Suleiman, P. Seregin, M. Udrov, A. Shchelokova, P. Belov "Design and demonstration of the volumetric resonator with uniform magnetic field distribution for wireless power transfer", 2024 IEEE Wireless Power Technology Conference and Expo (WPTCE2024), May 8-11, 2024, Kyoto, Japan
5. N. Mikhailov, M. Abrosimova, A. Jandaliyeva, M. Siganov, P. Belov, A. Shchelokova "Multi-Object Charging in Room-Sized Weakly Coupled WPT System", 2024 IEEE Wireless Power Technology Conference and Expo (WPTCE2024), May 8-11, 2024, Kyoto, Japan
6. M. Gorlach, P. Belov "Tunable Microwave Cavity for Axion Dark Matter Search", PIERS 2024, April 21-25, 2024, Chengdu, Sichuan, China

2023

1. P. Belov " New Phystech: the path from a laboratory within the framework of a megagrant to a faculty", Current issues of thermophysics and physical fluid dynamics, March 19-24, Sheregesh, Russia (virtual)
2. P. Belov, D. Sakhno, E. Koreshin "Longitudinal electromagnetic wavessupported by interlaced wire medium in wide frequency range", Days on Diffraction 2023, June 5-9, 2023, Saint-Petersburg, Russia
3. P. Belov "Studies of electromagnetic metamaterials in Russia and former USSR", IEEE HISTELCON 2023, September 07-09, 2023, Florence, Italy (virtual)
4. P. Belov, A. Jandaliyeva, A. Vdovenko, M. Siganov, L. Suleiman, P. Seregin, M. Udrov, A. Shchelokova "Volumetric Resonator Based on Split Loops for Wireless Power Transfer", Metamaterials 2023: The 17th International Congress on Artificial Materials for Novel Wave Phenomena, September 11-16, 2023, Crete, Greece

2022

1. P. Belov "Metamaterials: from left-handed media to hyperbolic metamaterials", Quantum Connection Summer School, June 21-22, 2022, Stockholm, Sweden
2. P. Belov "Metamaterial-inspired and ceramic-based structures for clinical MRI applications”, IEEE 5th International Conference on Electronic Information and Communication Technology, August 21-23, 2022, Hefei, China (virtual)
3. P. Belov "Wire Metamaterial Use For Dark Matter Detection" (Metamaterials 2022: The 16th International Congress on Artificial Materials for Novel Wave Phenomena), September 12-17, 2023, Siena, Italy (virtual)
4. R. Balafendiev, C. Simovski, A. Millar, P. Belov “Wireless power transmission using new physical principles”, VI International conference "Information technologies and technical controls" (ICCT-2022), October 3-7, 2022, Astrakhan, Russia (virtual)
5. P. Belov "Metamaterials Discussion", Oakridge workshop, October 21-22, 2022 (virtual)

2021

1. D. Sakhno, E. Koreshin, P. Belov "Longitudinal waves with extremely short wavelength in interlaced wire media", conference Metamaterials 2021: 15th International Congress on Artificial Materials for Novel Wave Phenomena, 20-25 September 2021, New York, USA
2. P. Belov "Longitudinal waves with extremely short wavelength in interlaced wire media", conference Metanano 2021, 12-16 September, Tbilisi, Georgia

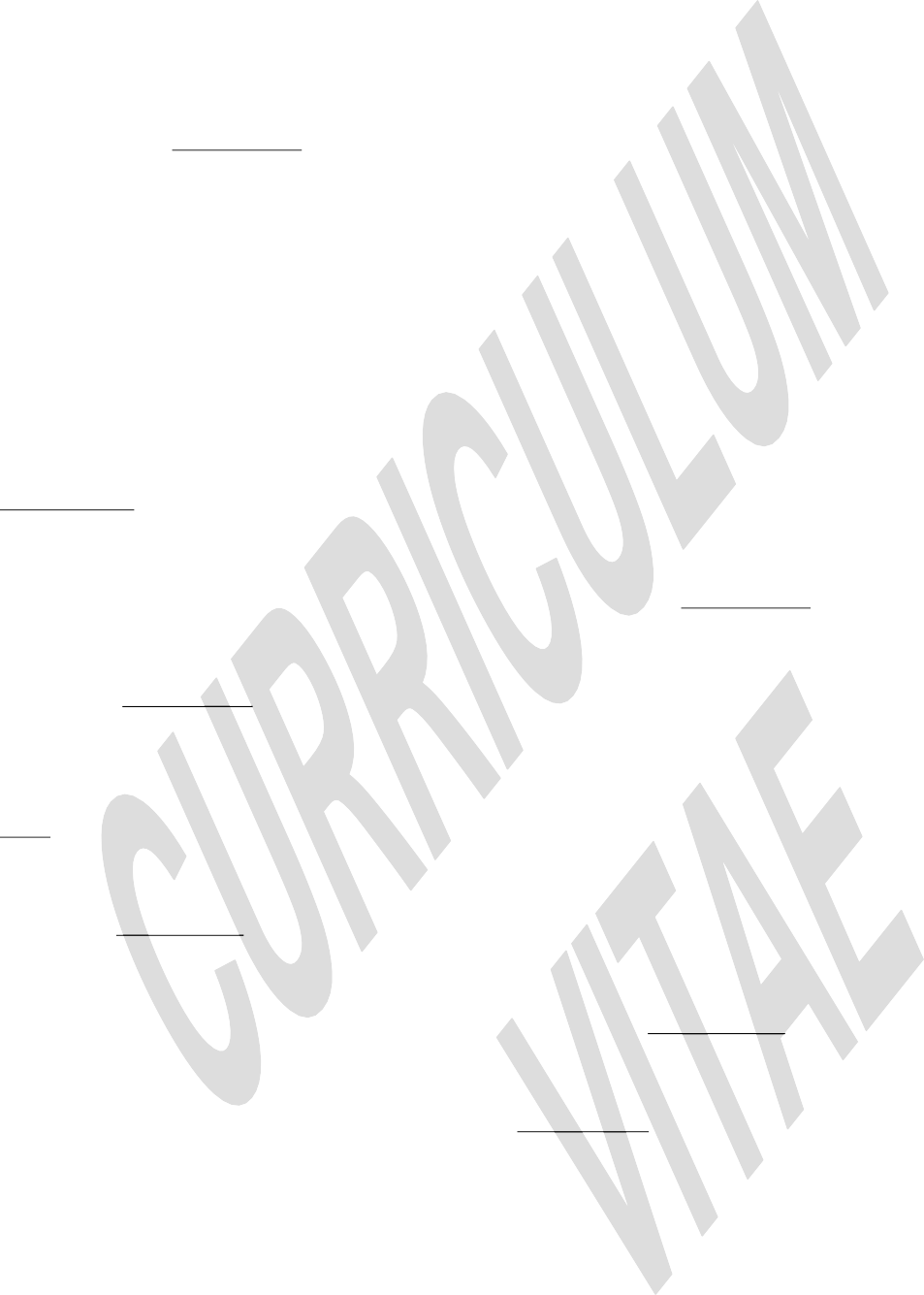
2020

1. A.P. Slobozhanyuk, I. Zivkovic, A. Shchelokova, A. А. Mikhailovskaya, I.V. Sushkov, E. Nenasheva, I.V. Melchakova, P.A. Belov, A Webb “Applications of dielectric pads, novel materials and resonators in 1.5T and 3T MRI”, Journal of Physics: Conference Series, Vol. 1461, No. 1, pp. 012166, 2020
2. Sinelnik, A., Shishkin, I., Yu, X., Samusev K., Belov P., Limonov M., Ginzburg, P., Rybin, M. “Optical properties of icosahedral quasicrystals”, AIP Conference Proceedings, 14-18 September 2020, St. Petersburg, Russian Federation, Virtual
3. Markvart A., Song M., Belov P.A., Simovski C.R., Kapitanova P.V. “Parametric study of metamaterial- inspired resonator for wireless power transfer”, METANANO 2019, 15-19 July 2019, St. Petersburg, Russian Federation
4. Shamkhi H., Baryshnikova K.V., Sayanskiy A.D., Kapitanova P.V., Terekhov P.D., Belov P.A., Karabchevsky A., Evlyukhin A.B., Kivshar Y.S., Shalin A.S. “Simultaneous suppression of forward and backward light scattering by high-index nanoparticles based on Kerker-like effects”, METANANO 2019, 15-19 July 2019 St. Petersburg, Russian Federation
5. Slobozhanyuk A.P., Zivkovic I., Shchelokova A., Mikhailovskaya A.A., Sushkov I.V., Nenasheva E., Melchakova I.V., Belov P.A., Webb A. “Applications of dielectric pads, novel materials and resonators in 1.5T and 3T MRI”, METANANO 2019, 15-19 July 2019, St. Petersburg, Russian Federation
6. Shamkhi H., Baryshnikova K.V., Sayanskiy A.D., Terekhov P.D., Gurvitz E.A., Valero A., Karabchevsky A., Kapitanova P.V., Evlyukhin A.B., Belov P.A., Kivshar Y.S., Shalin A.S. “Non-Huygens invisible metasurfaces”, METANANO 2019, 15-19 July 2019 St. Petersburg, Russian Federation

2019

1. Glybovski S.B., Solomakha G., Hurshkainen A.A., Nikulin A., Dobrykh D.A., Abdeddaim R., Slobozhanyuk A.P., Shchelokova A.V., Kozachenko A.V., Efimtcev A.Y., Melchakova I.V., Enoch S.,

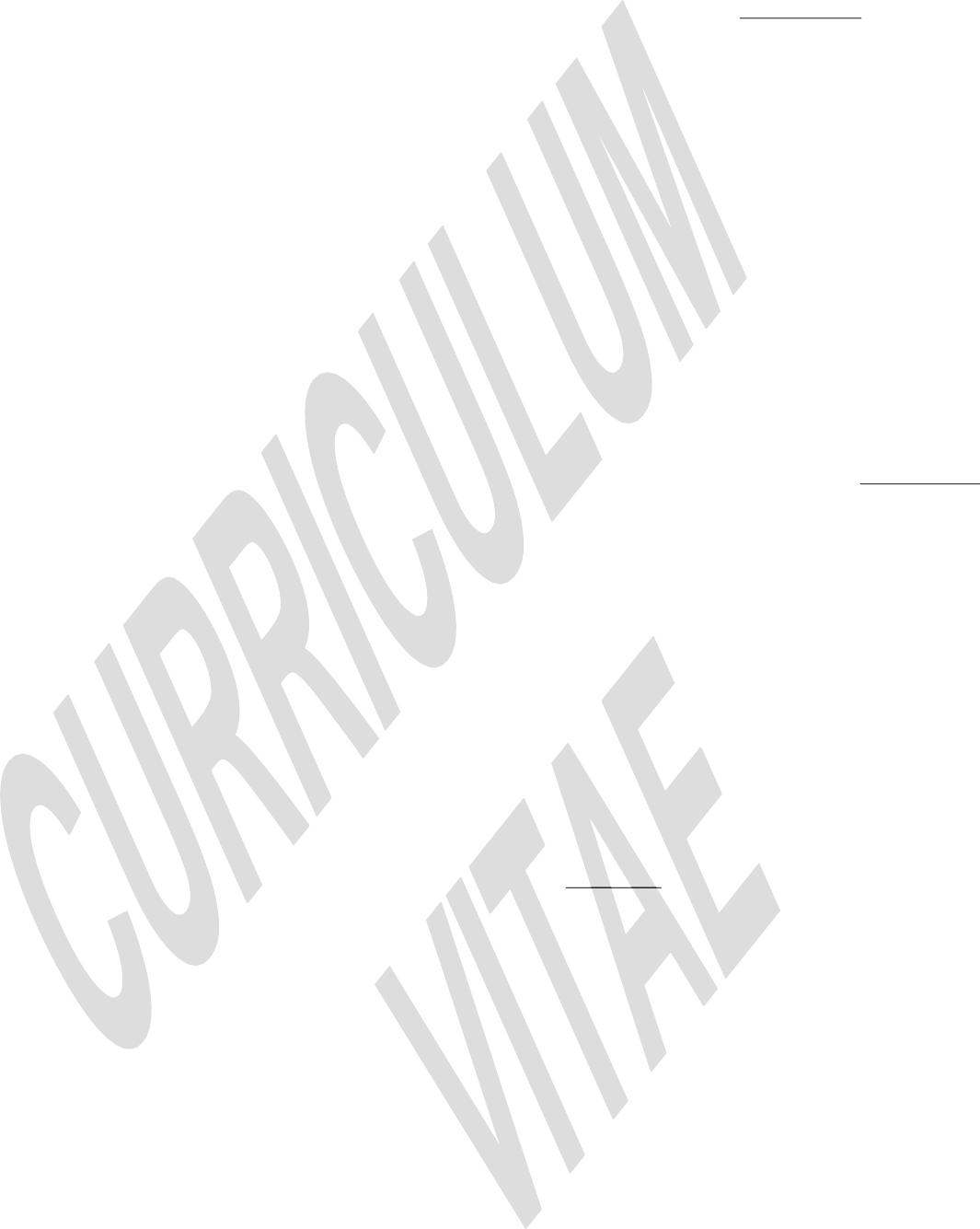
Belov P.A. “Surface and Volumetric Modes of Resonators Based on Periodic Wires for MRI Applications”, 13th European Conference on Antennas and Propagation (EuCAP), 31 March-5 April 2019, Krakow, Poland

1. P. Belov “Hybrid nanophotonics for sensing, thermometry and generation of white light at the nanoscale”, Discussions on Nano & Mesoscopic Optics DINAMO, 21-22 April 2019, Galapagos, Ecuador
2. Zograf G., Petrova M.I., Petrov M.I., Belov P.A., Komissarenko F.E., Makarova E.K., Pushkarev A.P., Sun Y., Ghosh P., Li Q., Qiu M., Makarov S.V., Zyuzin M.V. “Semiconductor resonant all-optical temperature sensor and thermal release trigger of encapsulated anti-cancer drugs for in vitro studies”, 6th International School and Conference "Saint Petersburg OPEN 2019": Optoelectronics, Photonics, Engineering and Nanostructures, 22–25 April 2019, Saint Petersburg, Russian Federation
3. Al-Naima K., Belov P.A., Kivshar Y.S., Alexander S.S., Baryshnikova K.V., Saianskii A.D., Terekhov P.D., Gurvitz E.A., Canos Valero A., Karabchevski A., Kapitanova P.V., Evlyukhin A.B. “Non-Huygens invisible metasurfaces”, 2019 PhotonIcs & Electromagnetics Research Symposium - Spring (PIERS- Spring), 17-20 June, 2019, Rome, Italy
4. Alena V. Shchelokova, Alexey P. Slobozhanyuk, Stanislav B. Glybovski, Irina V. Melchakova, Pavel A. Belov “Metasurfaces based coils for MRI”, 10th International Conference on Metamaterials, Photonic Crystals and Plasmonics (МЕТА 2019), JULY 23 – 26, 2019, Lisbon, Portugal
5. Mingzhao Song, Aleksandr Markvart, Constantin Simovski, Polina Kapitanova, Pavel Belov “Wireless power transfer based on dielectric resonators and metasurfaces”, 21st International Conference on Electromagnetics in Advanced Applications (ICEAA 2019), 9-13 Sept. 2019, Granada, Spain
6. Kurdjumov S.A., Moussu M., Ciobanu L., Nenasheva E.A., Djemai B., Dubois M., Webb A.G., Enoch S., Belov P.A., Abdeddaim R., Glybovski S.B. “Tunable all-dielectric RF-coils for magnetic resonance microscopy”, 21st International Conference on Electromagnetics in Advanced Applications (ICEAA 2019), 9-13 Sept. 2019, Granada, Spain
7. Song M., Markvart A., Simovski C.R., Kapitanova P.V., Belov P.A. “Wireless power transfer based on dielectric resonators and metasurfaces”, 13th International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials), 16-21 Sept. 2019, Rome, Italy
8. Song M., Belov P.A., Glybovsky S.B., Simovski C.R., Kapitanova P.V. “Metasurface for extension of wireless power transfer distance”, 13th International Congress on Artificial Materials for Novel Wave Phenomena, Metamaterials 2019, 16-21 Sept. 2019, Rome, Italy
9. Shamkhi H., Shalin A.S., Baryshnikova K.V., Sayanskiy A.D., Kapitanova P.V., Terekhov P.D., Belov P.A., Karabchevsky A., Evlyukhin A.B., Kivshar Y.S. “Extraordinary transparent metasurfaces composed of transverse scatterers”, 13th International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials), 16-21 Sept. 2019, Rome, Italy
10. Song M., Belov P.A., Kapitanova P.V. “Metasurface for Wireless Power Transfer to Multiple Receivers”, 2019 IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), 4-6 Nov. 2019, Tel-Aviv, Israel
11. Sushencev I., Shcherbakov A.A., Ladutenko K.S., Belov P.A. “Superdirective dielectric spherical multilayer antennae”, 2019 IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), Israel, 4-6 Nov. 2019, Tel-Aviv
12. Kurdjumov S.A., Ciobanu L., Djemai B., Belov P.A., Glybovski S.B., Nenasheva E.A., Webb A.G., Moussu M., Dubois M., Enoch S., Abdeddaim R. “Efficient Probes for Ultra-high-field Magnetic Resonance Microscopy Based on Coupled Ceramic Resonators”, 2019 IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), 4-6 Nov. 2019, Tel-Aviv, Israel

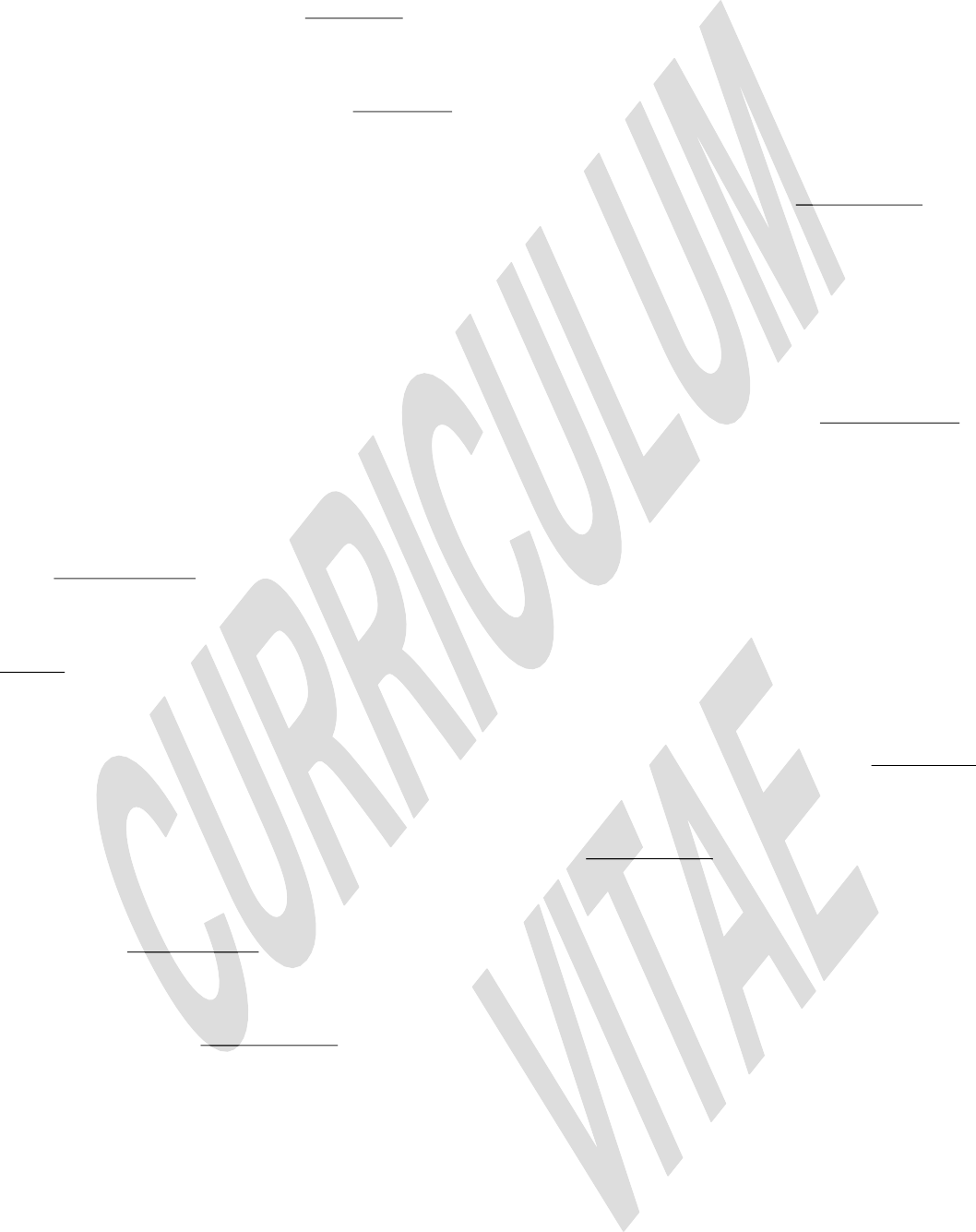
2018

1. Slobozhanyuk A.P., Shchelokova A.V., Ni X., Mousavi S.H., Smirnova D.A., Belov P.A., Alu A., Kivshar Y.S., Khanikaev A.B. “All-dielectric topological meta-optics”, Conference on Lasers and Electro-Optics (CLEO) 13–18 May 2018, San Jose, California, United States
2. Polina Kapitanova, Andrey Sayanskiy, Mikhail Odit, Andrey Miroshnichenko, Andrey Lavrinenko, Pavel Belov “All-dielectric Metasurfaces as an Efficient Tool for Electromagnetic Waves Manipulation”, 20th International Conference on Transparent Optical Networks (ICTON), 1-5 July 2018, Bucharest, Romania
3. Hurshkainen A.A., Nikulin A.V., Melchakova I.V., Belov P.A., Enoch S., Abdeddaim R., Glybovski S.B. “A Quantitative Study of a New RF-coil for 7 Tesla Small-Animal Imaging”, IEEE Antennas and Propagation Society International Symposium and USNC/URSI National Radio Science Meeting, APSURSI, 8-13 July 2018, Boston, Massachusetts
4. Kapitanova P.V., Sayanskiy A.D., Miroshnichenko A., Belov P.A. “Functional All-dielectric Metasurfaces

for Efficient Manipulation of Electromagnetic Waves”, IEEE Antennas and Propagation Society International Symposium and USNC/URSI National Radio Science Meeting, APSURSI, 8-13 July 2018, Boston, Massachusetts

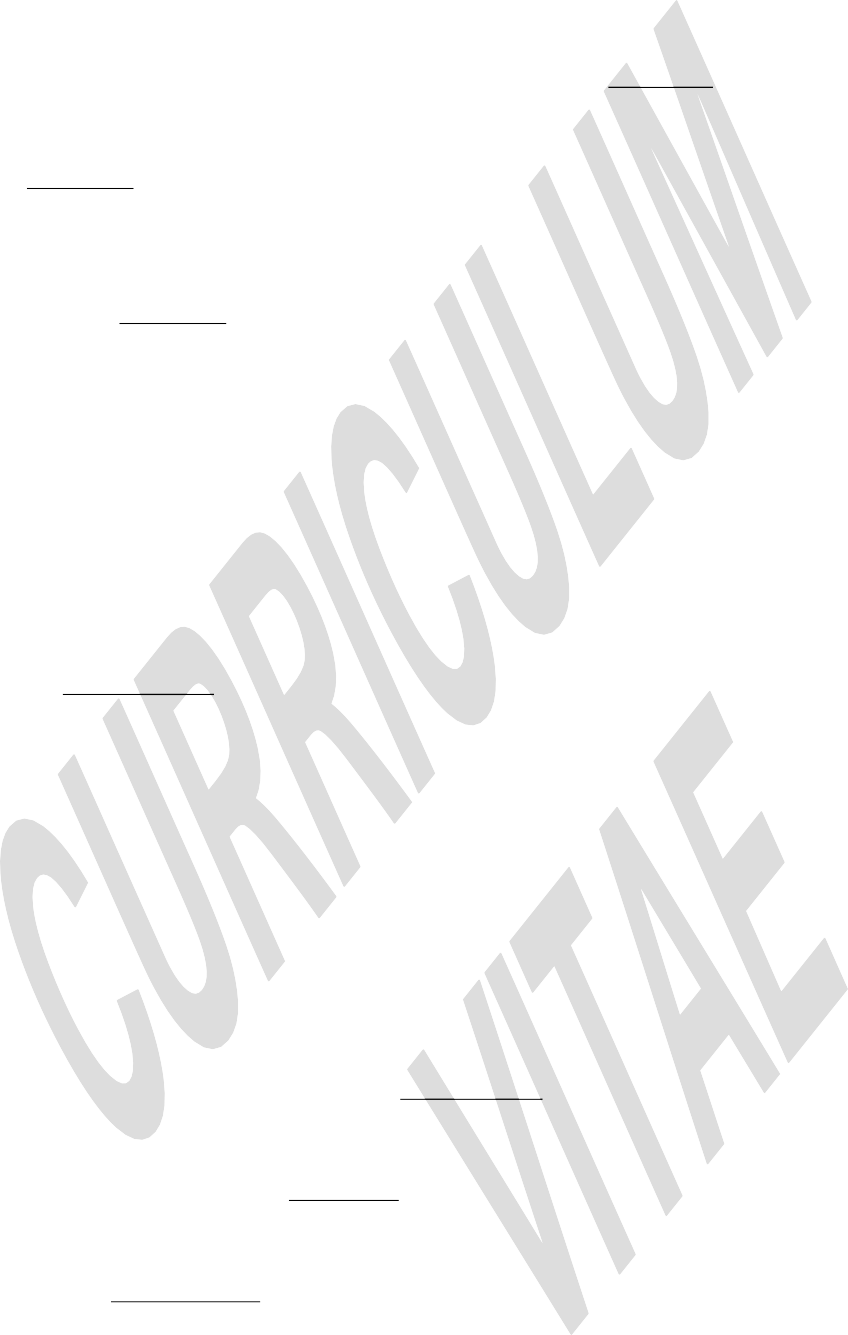
1. Odit M., Sayanskyi A., Asadchy V., Belov P. “Microwave reflecting focusing metasurface based on water”, IEEE Antennas and Propagation Society International Symposium and USNC/URSI National Radio Science Meeting, APSURSI, 8-13 July 2018, Boston, Massachusetts
2. Shchelokova A.V., Slobozhanyuk A.P., Glybovski S.B., Melchakova I.V., Belov P.A. “Metasurfaces for Improvement Magnetic Resonance Imaging Characteristics: Novel Designs and in Vivo Studies”, Progress In Electromagnetics Research Symposium, PIERS-Toyama, 1 - 4 August 2018, Toyama, Japan
3. Glybovski S. B., Sayanskiy A. D., Kuznetsov S. A., J. P. del Risco, Slobozhanyuk A. P., Belov P. A., Baena J. D. “Self-complementary tessellations as universal design approach for lp-to-cp transforming frequency selective surfaces”, 12th International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials), 27 Aug.-1 Sept. 2018, Espoo, Finland
4. Shchelokova A.V., Brui E.A., Glybovski S.B., Slobozhanyuk A.P., Melchakova I.V., Belov P.A. “Tunability methods for magnetic resonance imaging applications of metasurfaces”, 12th International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials), 27 Aug.-1 Sept. 2018, Espoo, Finland
5. Zalipaev V.V., Kosulnikov S.Y., Glybovski S.B., Shchelokova A.V., Slobozhanyuk A.P., Belov P.A. “Mode Hopping in 1D Arrays of Resonant PEC Thin Wires over an Interface between Two Dielectric Media”, 12th International Congress on Artificial Materials for Novel Wave Phenomena (Metamaterials), 27 Aug.-1 Sept. 2018, Espoo, Finland
6. D.V. Zhirihin, M.A. Gorlach, X.Ni, D.A. Smirnova, D. Korobkin, A.P. Slobozhanyuk, P.A. Belov, A. Alù and A.B. Khanikaev “Experimental observation of spin-locked propagation of topological edge states in an open non-Hermitian metasurface”, METANANO 2018, 17–21 September 2018, Sochi, Russian Federation
7. Markvart A., Song M., Kosulnikov S., Glybovski S., Belov P., Simovski C., Kapitanova P. “Metamaterials-inspired resonator for wireless power transfer systems”, METANANO 2018, 17–21 September 2018, Sochi, Russian Federation
8. Odit M., Saynskyi A., Munina I.V., Belov P.A. “Functional metasurfaces based on water”, METANANO 2018, 17–21 September 2018, Sochi, Russian Federation
9. Lepeshov S.I., Gorodetskii A.A., Toropov N.A., Vartanyan T.A., Krasnok A.E., Belov P.A., Rafailov E.U. “Novel Optimized Hybrid Terahertz Photoconductive Antennas”, METANANO 2018, 17–21 September 2018, Sochi, Russian Federation

2017

1. A. Hurshkainen, A. Nikulin, S. Glybovski, I. Melchakova, P. Belov, B. Larrat, E. Georget, S. Enoch, L. Neves, P. Sabouroux, R. Abdeddaim, “Hybridized eigenmodes of periodic wire arrays and their application in radiofrequency coils for preclinical MRI”, 2017 Progress In Electromagnetics Research Symposium - Spring (PIERS), 22–25 May 2017, St Petersburg, Russia
2. Bogdanov A.A., Gorlach M.A., Song M., Slobozhanyuk A.P., Belov P.A. “Nonlocal homogenization of coated wire medium”, 2017 Progress In Electromagnetics Research Symposium - Spring (PIERS), 22–25 May 2017, St Petersburg, Russia
3. А. Shchelokova, A. Slobozhanyuk, Sh. Ch. Saha, I. Sotiriou, M. Koutsoupidou, G. Palikaras, Efthymios Kallos, P. Belov and A. Webb “In vivo magnetic resonance imaging of human knee with metasurface”, 2017 Progress In Electromagnetics Research Symposium - Spring (PIERS), 22–25 May 2017, St Petersburg, Russia
4. Zalogina A.S., Zograf G.P., Makarov S.V., Savelev R.S., Kudryashov S.I., Tiguntseva E.Y., Shadrivov I.V., Zuev D.A., Belov P.A. “Zero phonon line enhancement by Mie-type resonances of nanodiamonds with nitrogen-vacancy centers”, 2017 Progress In Electromagnetics Research Symposium - Spring (PIERS), 22–25 May 2017, St Petersburg, Russia
5. Kolodny S.A., Sun Y., Zuev D.A., Belov P.A., Krasnok A.E. “Approach for fine-tuning of hybrid dimer nanoantennas via laser melting”, 2017 Progress In Electromagnetics Research Symposium - Spring (PIERS), 22–25 May 2017, St Petersburg, Russia
6. S. Lepeshov, D. Zuev, V. Milichko, P. Belov, A. Krasnok, I. Mukhin, A. Gudovskikh, A. Miroshnichenko, “Experimental demonstration of a reconfigurable magnetic Fano resonance in hybrid oligomers”, Days on Diffraction (DD), 19-23 June 2017, St. Petersburg, Russia
7. Zograf G.P., Petrov M.I., Zuev D.A., Milichko V.A., Dmitriev P.A., Makarov S.V., Belov P.A. “2D thermal map calculation and experimental study for optical heating of resonant non-plasmonic nanoparticles”, Days on Diffraction (DD), 19-23 June 2017, St. Petersburg, Russia
8. S. Li, S. Lepeshov, R. Savelev, D. Baranov, P. Belov, A. Krasnok, “Dielectric Yagi-Uda nanoantennas driven by electron-hole plasma photoexcitation”, Saint Petersburg OPEN 2017, 3-6 April 2017, St Petersburg, Russia
9. S. Lepeshov, A. Gorodetsky, N. Toropov, T. Vartanyan, E. Rafailov, A. Krasnok, P. Belov, “Optimization of Nanoantenna-Enhanced Terahertz Emission from Photoconductive Antennas”, Saint Petersburg OPEN 2017, 3-6 April 2017, St Petersburg, Russia
10. D. Zhirihin, K. Simovski, P. Belov, S. Glybovski, “Mushroom-type HIS as a perfect absorber for two angles of incidence”, 2017 11th International Congress on Engineered Materials Platforms for Novel Wave Phenomena (Metamaterials), 27 Aug.-2 Sept. 2017, Marseille, France
11. P. Kapitanova, A. Sayanskiy, P. Belov, and A. Miroshnichenko, “Generalized Huygens’ Metasurface Based on Higher Order Magnetic Dipolar Resonances”, 2017 11th International Congress on Engineered Materials Platforms for Novel Wave Phenomena (Metamaterials), 27 Aug.-2 Sept. 2017, Marseille, France
12. A. V. Shchelokova, D. A. Dobrykh, S. B. Glybovski , I. V. Melchakova, P. A. Belov, “A metasolenoid-like resonator for MRI applications”, 2017 11th International Congress on Engineered Materials Platforms for Novel Wave Phenomena (Metamaterials), 27 Aug.-2 Sept. 2017, Marseille, France
13. A. Hurshkainen, A. Nikulin, S. Glybovski, R. Abdeddaim, C. Vilmen, S. Enoch, I. Melchakova, P. Belov and D. Bendahan “A metamaterial-inspired MR antenna independently tunable at two frequencies”, 2017 11th International Congress on Engineered Materials Platforms for Novel Wave Phenomena (Metamaterials), 27 Aug.-2 Sept. 2017, Marseille, France
14. A. Shchelokova, R. Schmidt, A. Slobozhanyuk, T. Kallos, A. Webb, P. A. Belov “Enhancement of magnetic resonance imaging with metasurfaces: From concept to human trials”, 2017 11th International Congress on Engineered Materials Platforms for Novel Wave Phenomena (Metamaterials), 27 Aug.-2 Sept. 2017, Marseille, France
15. A. V. Shchelokova, A. P. Slobozhanyuk, I. V. Melchakova, S. B. Glybovski, A. G. Webb, Yu. S. Kivshar, and P. A. Belov, “Tunable hybrid metasurfaces for MRI applications”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September, 2017, Vladivostok, Russia
16. Alexey Slobozhanyuk, Yuri Kivshar, Alena Shchelokova, Irina Melchakova, Stanislav Glybovski, Pavel Belov, Andrew Webb “Tunable hybrid metasurfaces for image quality enhancement”, 2017 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting, 9-14 July 2017, San Diego, CA, USA
17. Kapitanova, P., Odit, M., Dobrykh, D., Andryieuski, A., Lavrinenko, A.V., Belov, P. “Tunable water- based microwave metasurface”, 11th European Conference on Antennas and Propagation (EUCAP 2017), 19-24 March 2017, Paris, France
18. M. A. Gorlach, D. Korobkin, X. Ni, D. A. Smirnova, P. A. Belov, A. Alu, A. B. Khanikaev, “Spectroscopy of topological photonic states in dielectric metasurfaces”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September 2017, Vladivostok, Russia
19. Song, M., Belov, P.A., Kapitanova, P.V. “Colossal permittivity resonators for wireless power transfer systems”, 11th European Conference on Antennas and Propagation (EUCAP 2017), 19-24 March 2017, Paris, France
20. Mingzhao Song, Pavel Belov, Polina Kapitanova “Dielectric resonators for mid-range wireless power transfer application”, 2017 IEEE Wireless Power Transfer Conference (WPTC), 10-12 May 2017, Taipei, Taiwan
21. Zalogina A.S., Mingabudinova L.R., Zuev D.A., Makarov S.V., Vinogradov A.V., Milichko V.A., Belov

P.A. “Enhancement of second harmonic generation in chiral metal-organic frameworks with silicon nanoparticles”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September 2017, Vladivostok, Russia

1. Lepeshov S.I., Zuev D.A., Krasnok A.E., Miroshnichenko A.E., Belov P.A. “Control of Magnetic Fano resonance of Hybrid Oligomers via Femtosecond Laser Modification at Nanoscale”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September 2017, Vladivostok, Russia
2. P.A. Dmitriev, D.G. Baranov, V.A. Milichko, I.S. Mukhin, Q. Li, S. Mondal, S.V. Makarov, A.K. Samusev, G.P. Zograf, D.A. Zuev, E.K. Makarova, M.I. Petrov, I.S. Sinev, M.A. Gorlach, K.S. Frizyuk, P.A. Belov, “Resonant optical properties of crystalline silicon nanoparticles fabricated by laser ablation- based methods”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September 2017, Vladivostok, Russia
3. Zalogina A.S., Savelev R.S., Shadrivov I.V., Zuev D.A., Belov P.A. “High refractive index nanoparticles for single NV-centre luminescence control”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September, 2017, Vladivostok, Russia
4. Zalogina A.S., Zograf G.P., Ushakova E.V., Komissarenko F.E., Savelev R.S., Kudryashov S.I., Makarov S.V., Zuev D.A., Belov P.A. “Control of luminescence in resonant nanodiamonds with NV-centers”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September, 2017, Vladivostok, Russia
5. A. S. Zalogina, J. Javadzade, D. A. Zuev, R. S. Savelev, V. V. Vorobyov, S. V. Makarov, P. A. Belov,

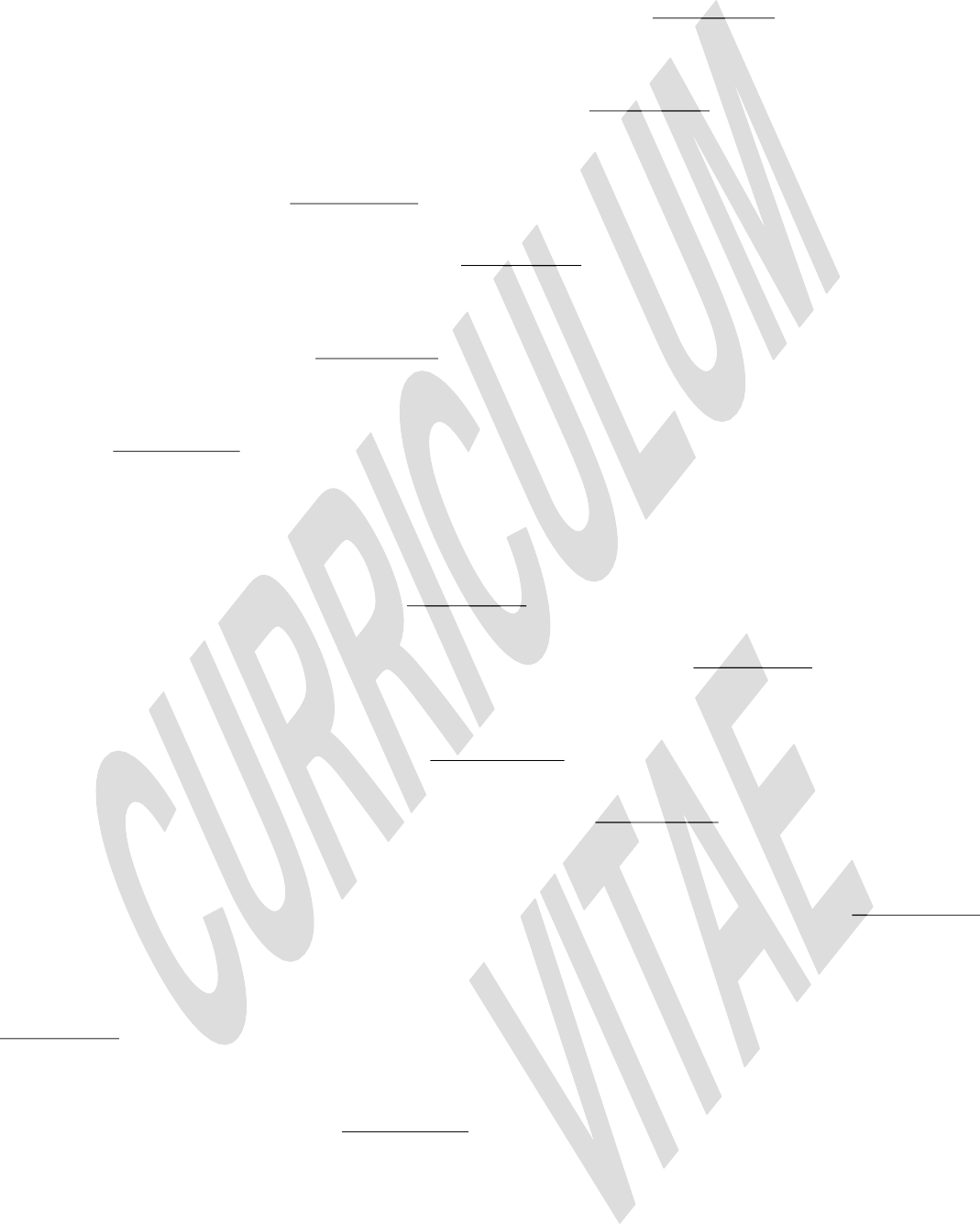
A.V. Akimov, I.V. Shadrivov, “Effect of dipole orientation on Purcell factor for the quantum emitter near silicon nanoparticle”, International Conference on Metamaterials and Nanophotonics (METANANO- 2017), 18 - 22 September, 2017, Vladivostok, Russia

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2. M. Song, P. Belov, P. Kapitanova, “Multipolar modes in dielectric disk resonator for wireless power transfer”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September, 2017, Vladivostok, Russia
3. A. Hurshkainen, S. Kurdjumov, C. Simovski, S. Glybovski, I. Melchakova, C. A. T. van den Berg, A. Raaijmakers, and P. Belov “Decoupling capabilities of split-loop resonator structure for 7 Tesla MRI surface array coils”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September, 2017, Vladivostok, Russia
4. S. Kurdjumov, S. Glybovski, A. Hurshkainen, A. Webb, R. Abdeddaim, L. Ciobanu, I. Melchakova, and P.Belov, “A mechanically tunable and efficient ceramic probe for MR-microscopy at 17 Tesla”, International Conference on Metamaterials and Nanophotonics (METANANO-2017), 18 - 22 September, 2017, Vladivostok, Russia
5. Kapitanova P., Odit M., Danaeifar M., Sayanskiy A., Belov P., Miroshnichenko A., Kivshar Y. “All- dielectric Bianisotropic and Multimode Unidirectional Microwave Metasurfaces”, 47th European Microwave Conference (EuMC), 10-12 October 2017, Nuremberg, Germany
6. A. V. Shchelokova, D. A. Dobrykh, A. P. Slobozhanyuk, S. B. Glybovski, M. A. Zubkov, E. A. Brui, I. V. Melchakova, P. A. Belov, “Metasurface-based wireless coils for magnetic resonance imaging”, IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), 13-15 Nov. 2017, Tel-Aviv, Israel
7. V.A. Milichko, K.S. Frizyuk, P.A. Dmitriev, D.A. Zuev, G.P. Zograf, S.V. Makarov, P.A. Belov “Hybrid nanocavity for molecular sensing”, IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), 13-15 Nov. 2017, Tel-Aviv, Israel
8. P. Kapitanova, P. Belov “Numerical Study of Magnetic Wireless Power Transfer System Based on Magnetic Modes of Dielectric Disk Resonator”, IEEE International Conference on Microwaves, Antennas, Communications and Electronic Systems (COMCAS), 13-15 Nov. 2017, Tel-Aviv, Israel

2016

1. A. P. Slobozhanyuk, A. V. Shchelokova, P. A. Belov “Advanced electromagnetic materials for magnetic resonance imaging”, 2016 IEEE Radio and Antenna Days of the Indian Ocean (RADIO), 10-13 Oct. 2016, St. Gilles-les-Bains, Reunion
2. P. Kapitanova, M. Song, I. Iorsh, P. Belov, “Wireless power transfer system based on ceramic resonators”, 2016 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (METAMATERIALS), 19-22 Sept. 2016, Chania, Greece
3. Mingzhao Song, Pavel Belov, Polina Kapitanova “High permittivity dielectric resonators for wireless power transfer system”, Antennas and Propagation Society International Symposium (APSURSI), 26 June- 1 July 2016, Fajardo, Puerto Rico
4. M. Gorlach, P. Belov, “Nonlocality in discrete nonlinear metamaterials”, 2016 10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (METAMATERIALS), 19-22 Sept. 2016, Chania, Greece
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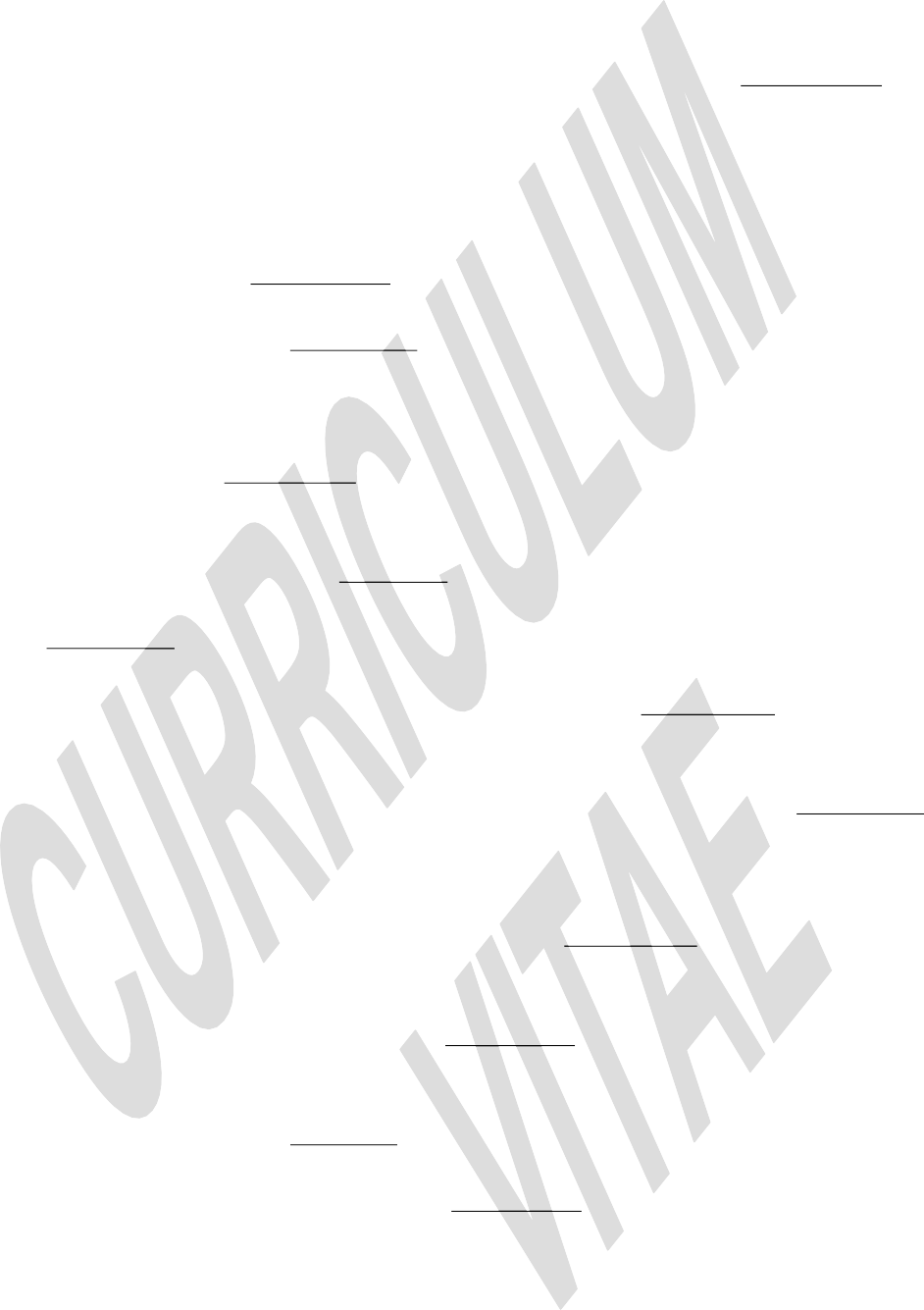
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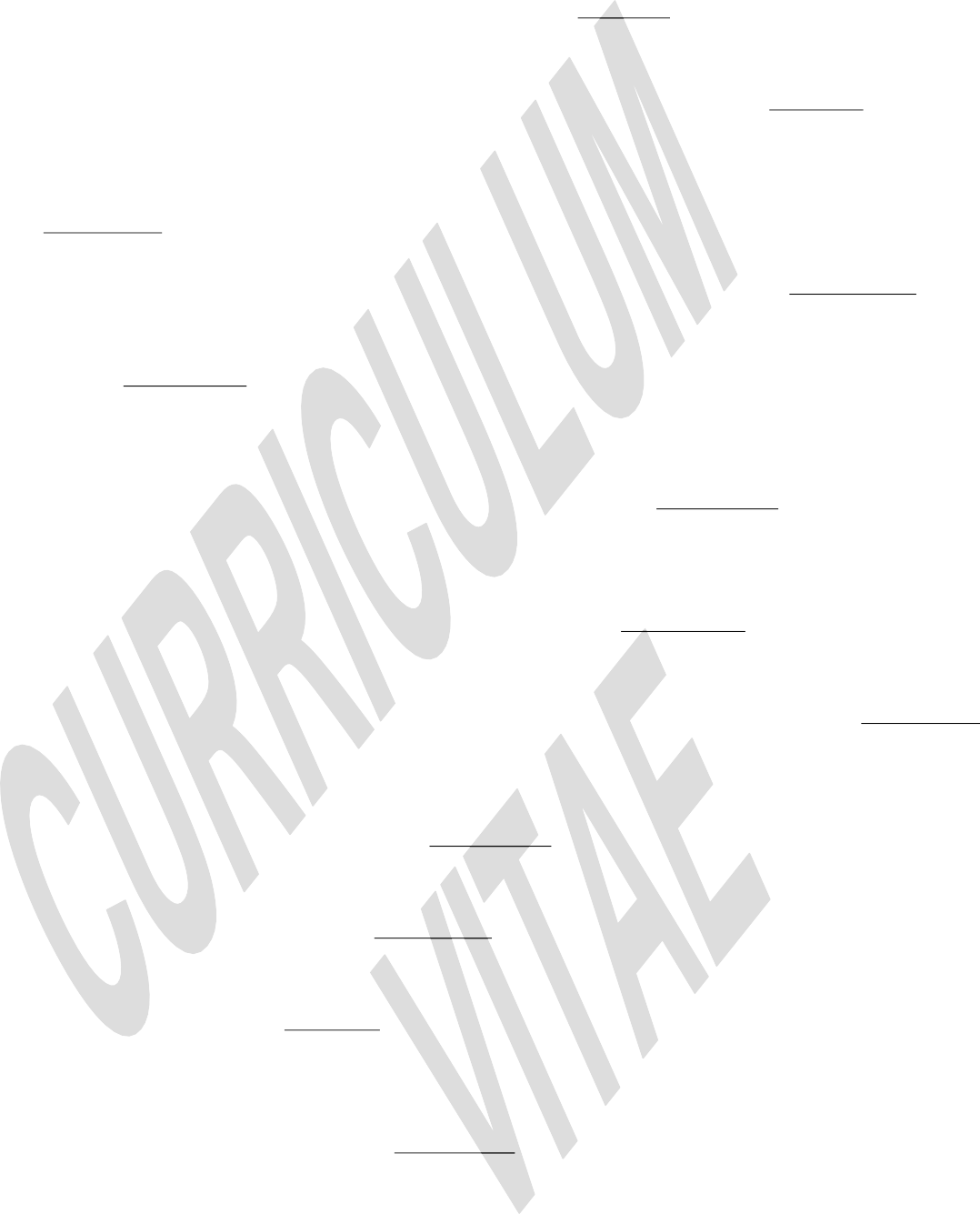
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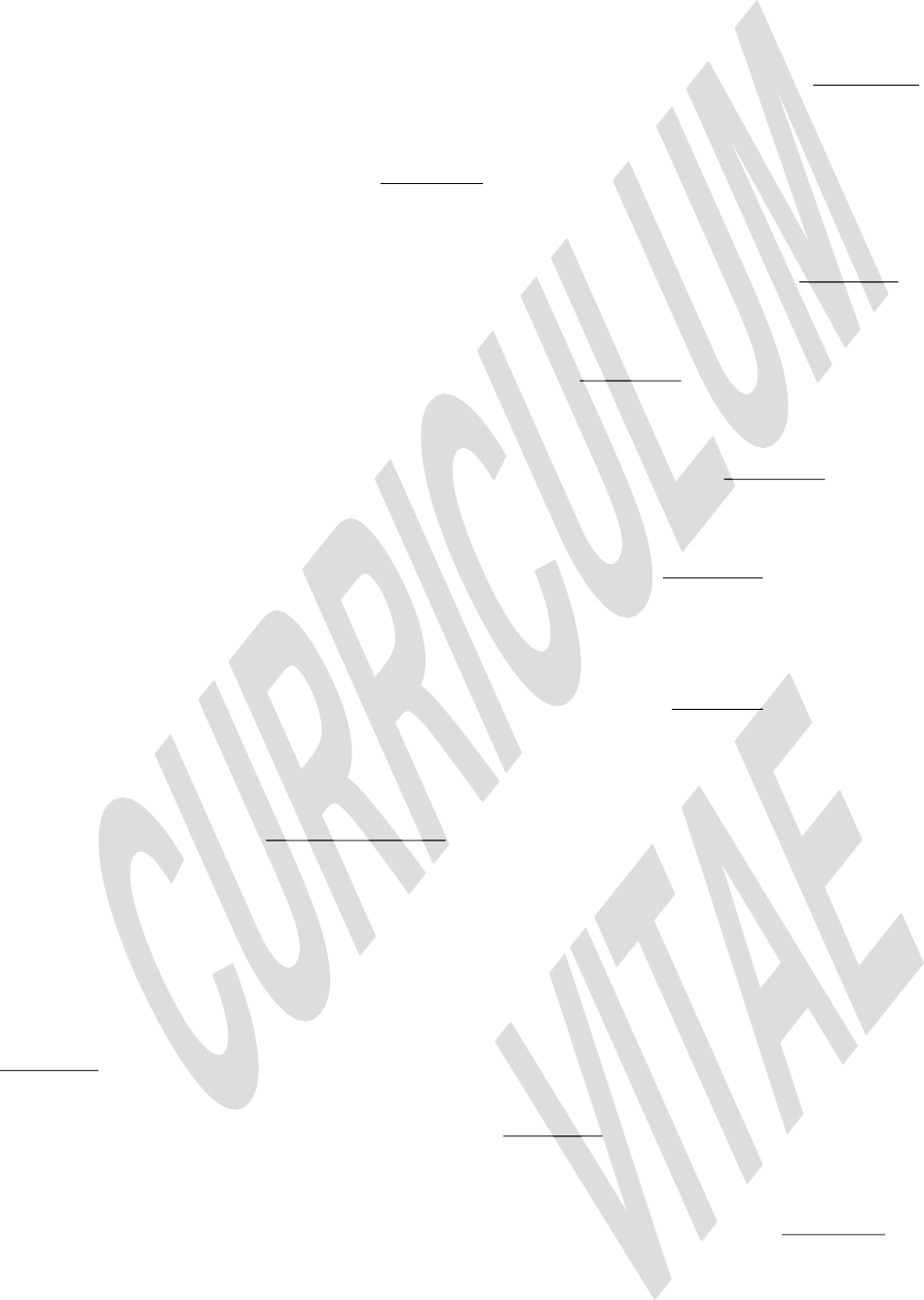
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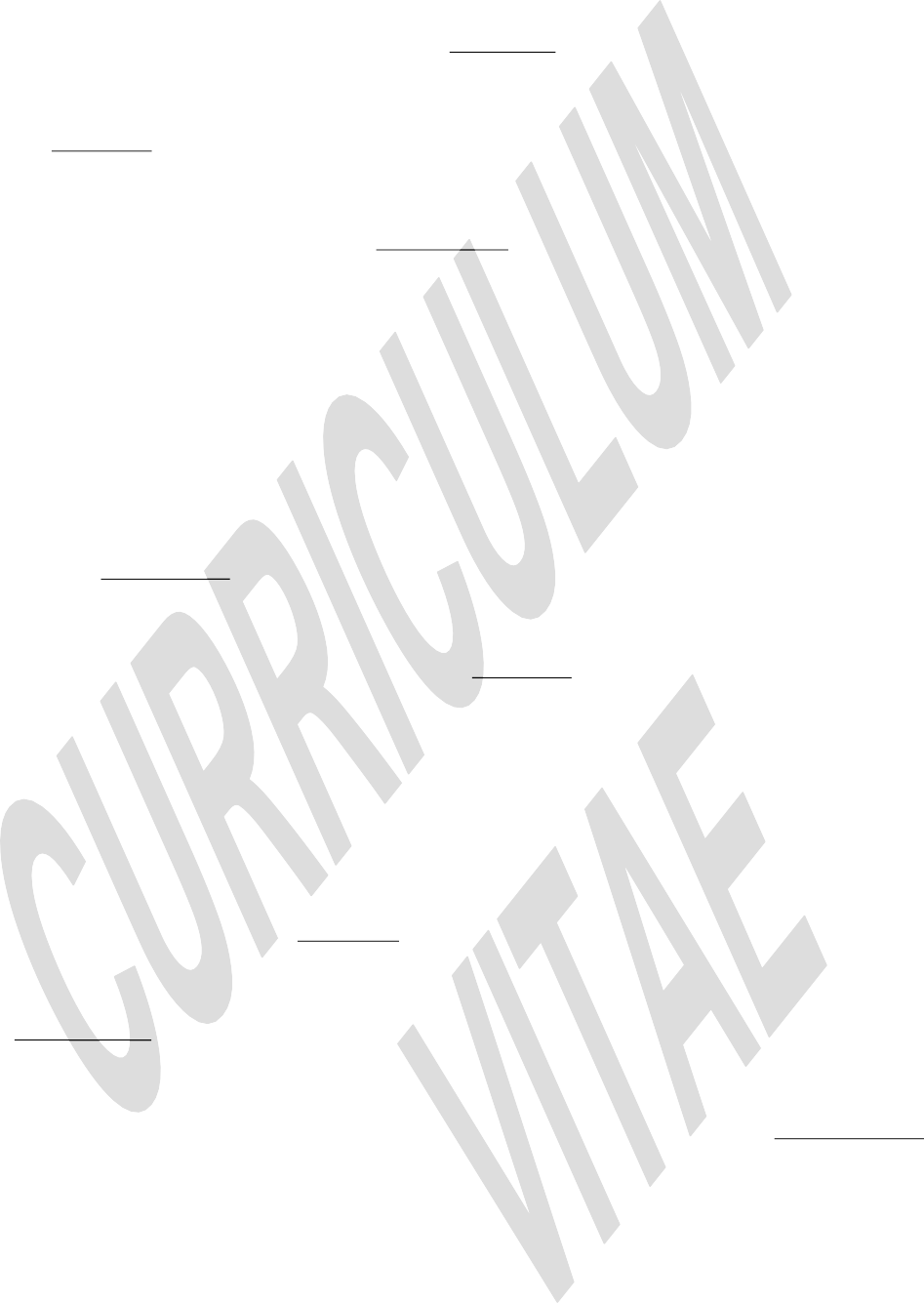
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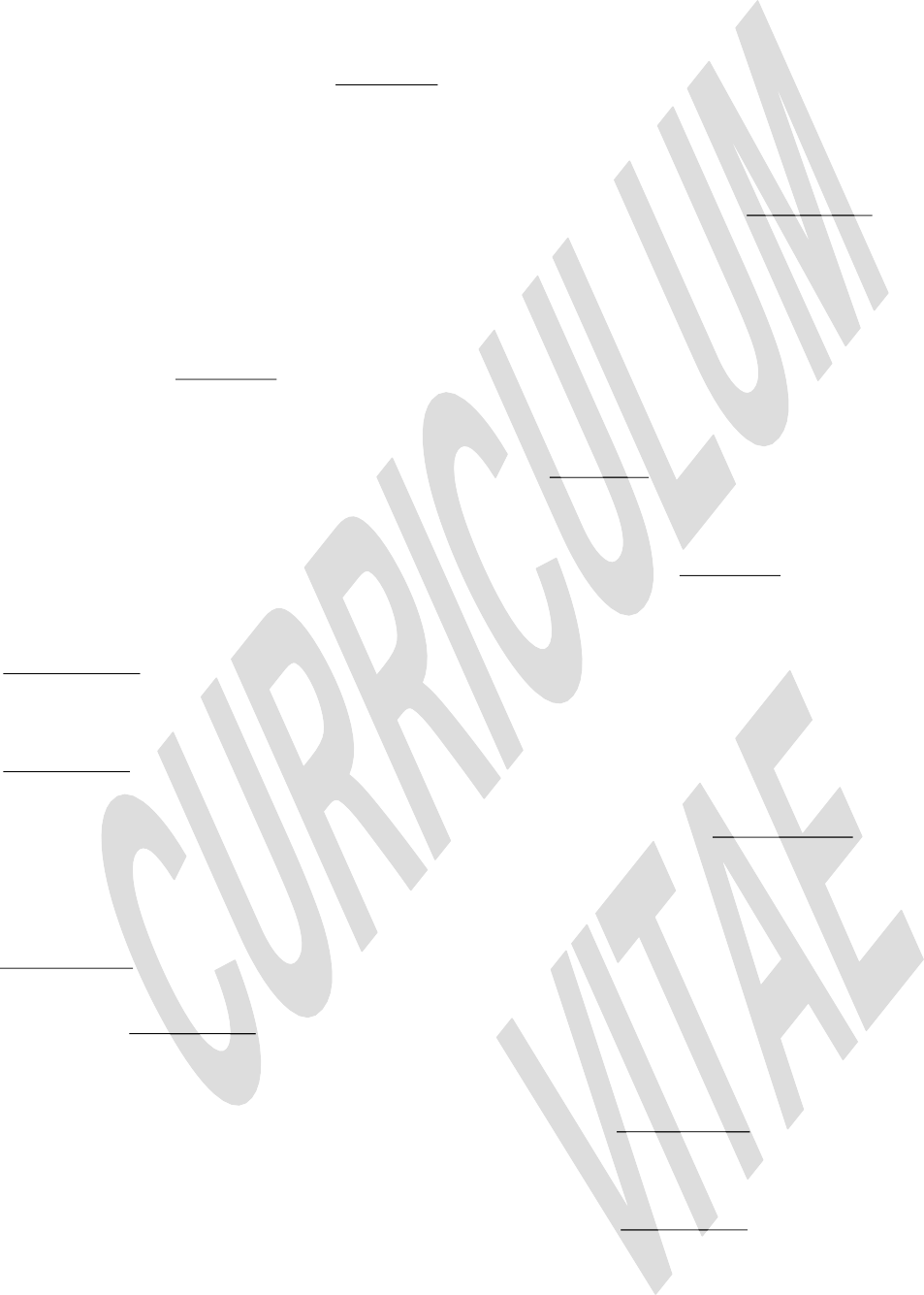
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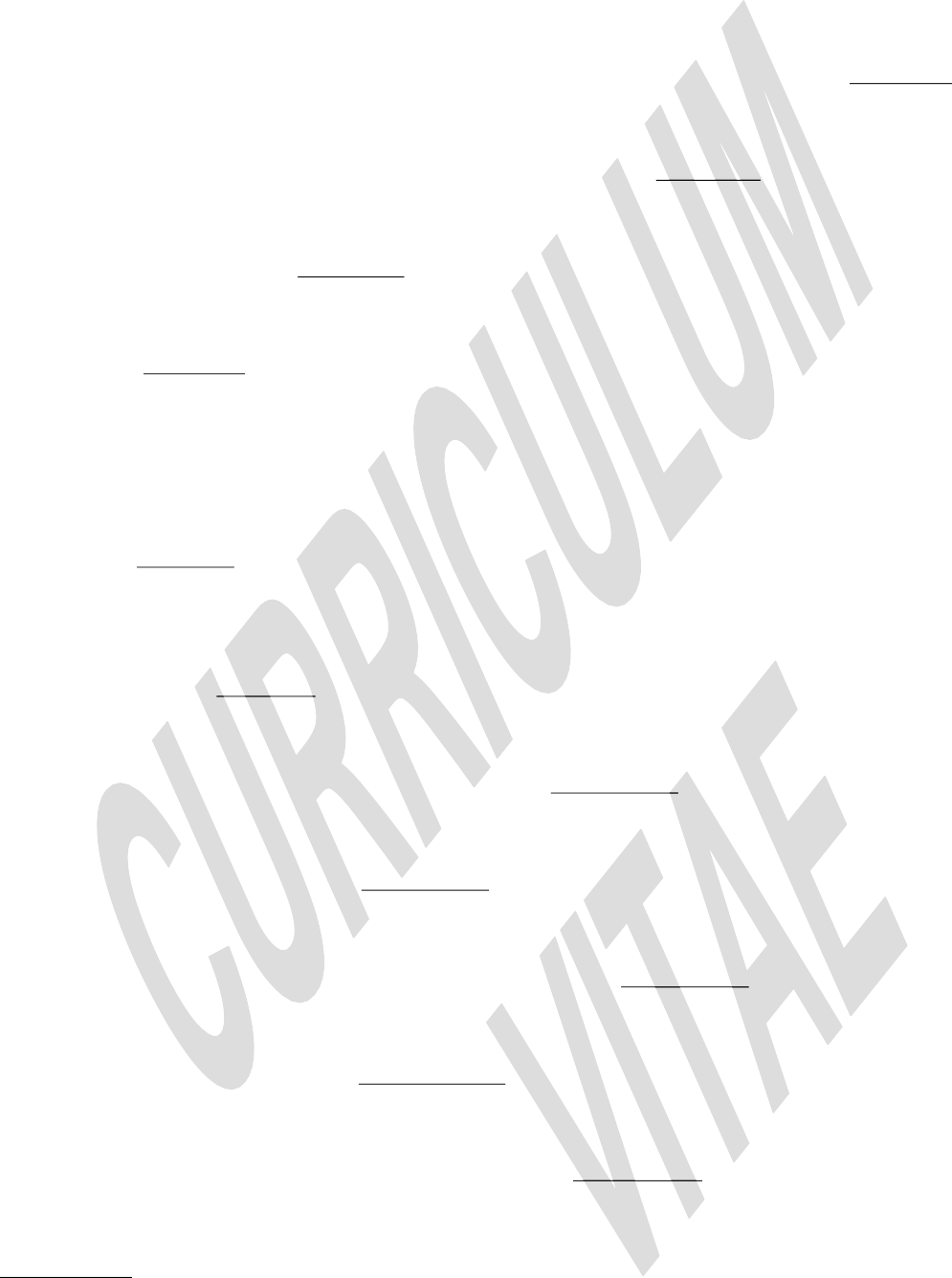
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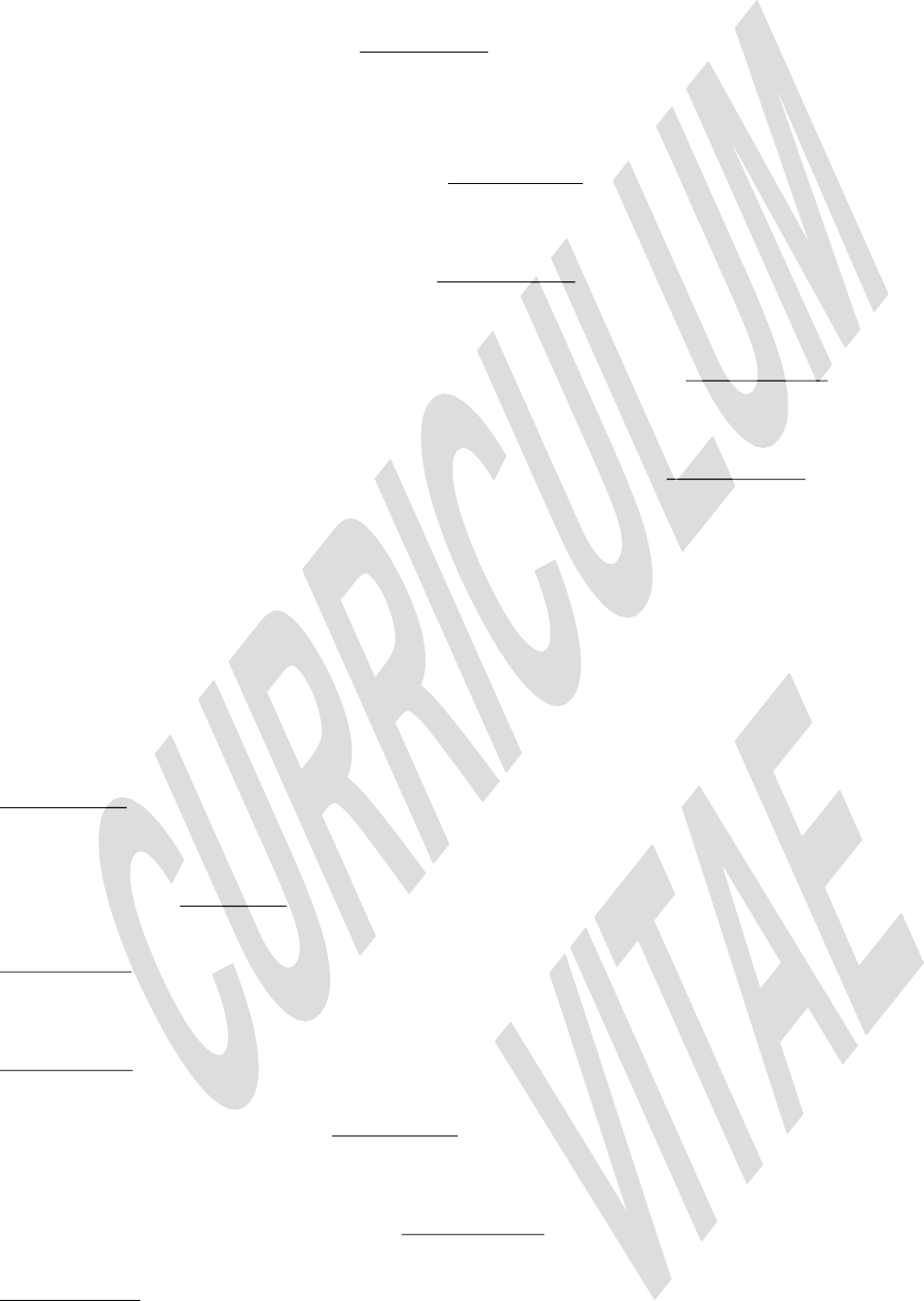
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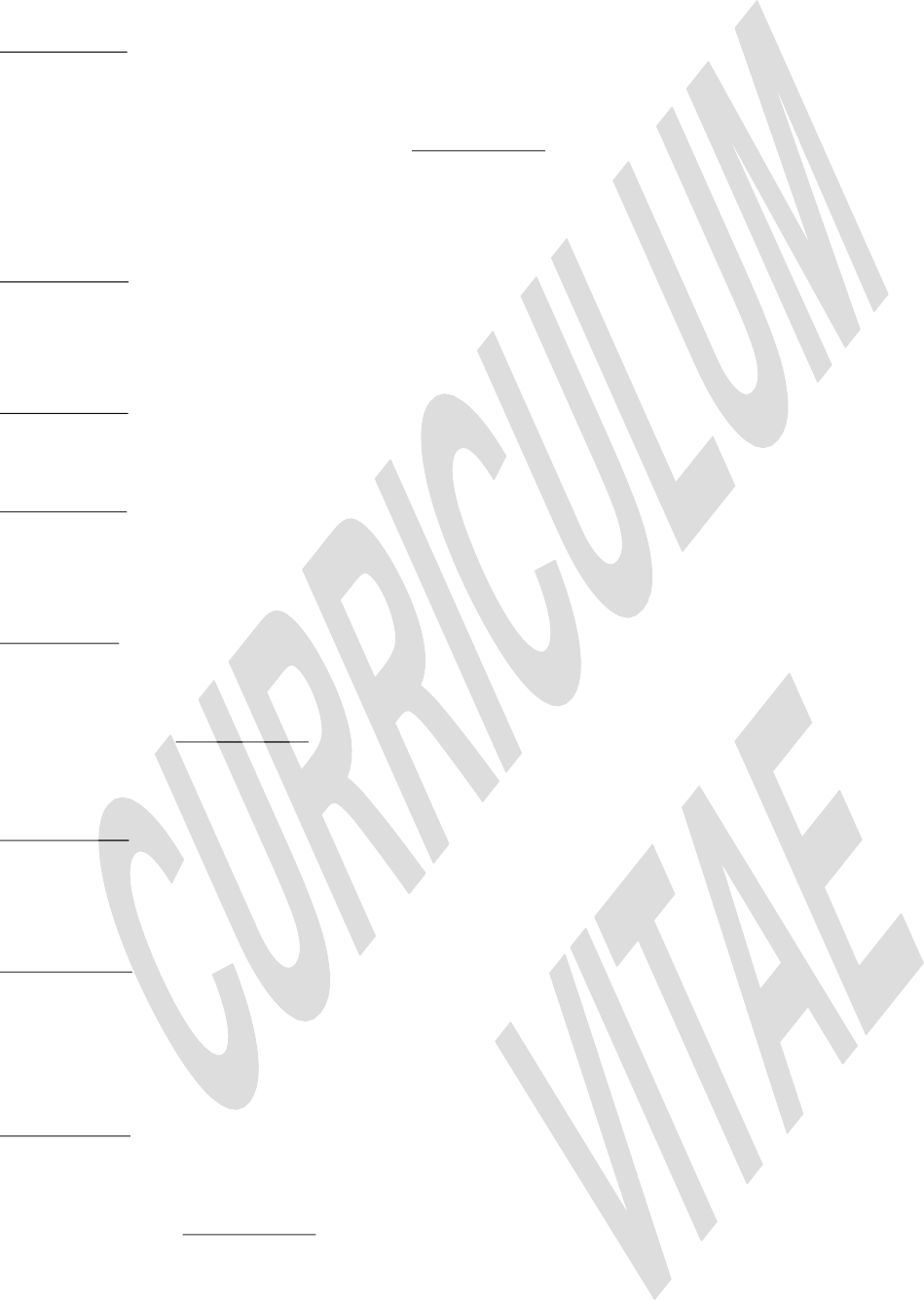
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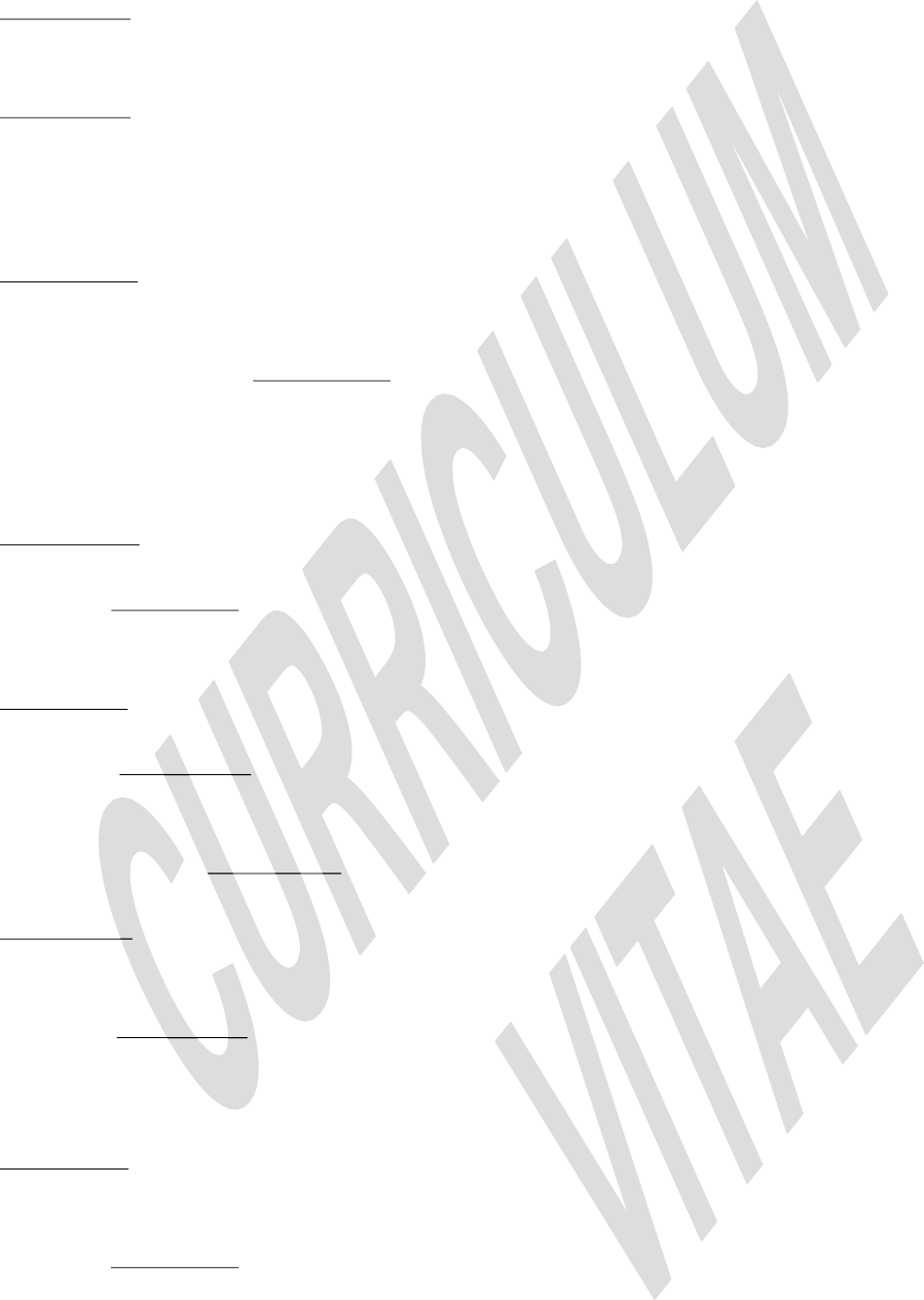
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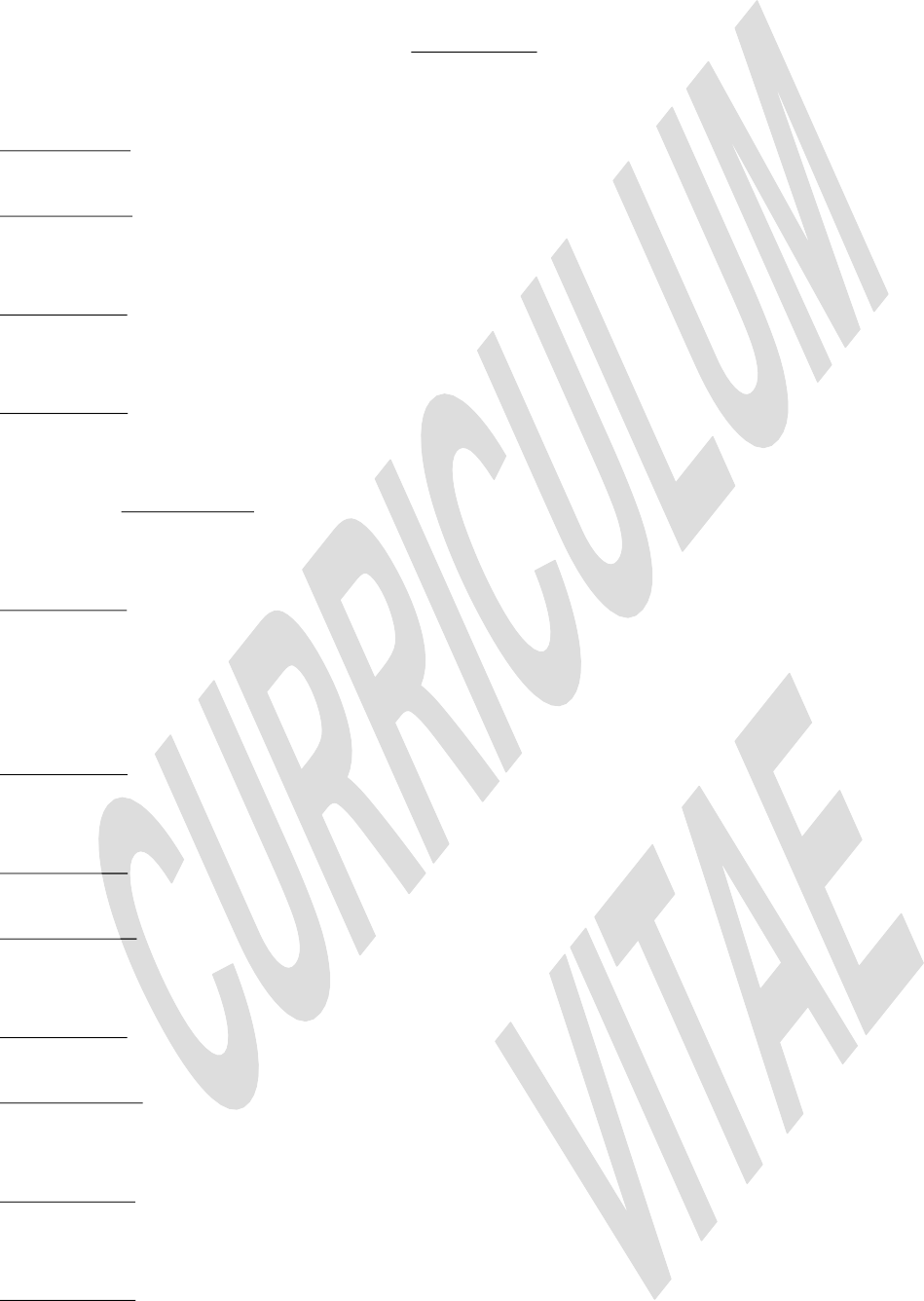
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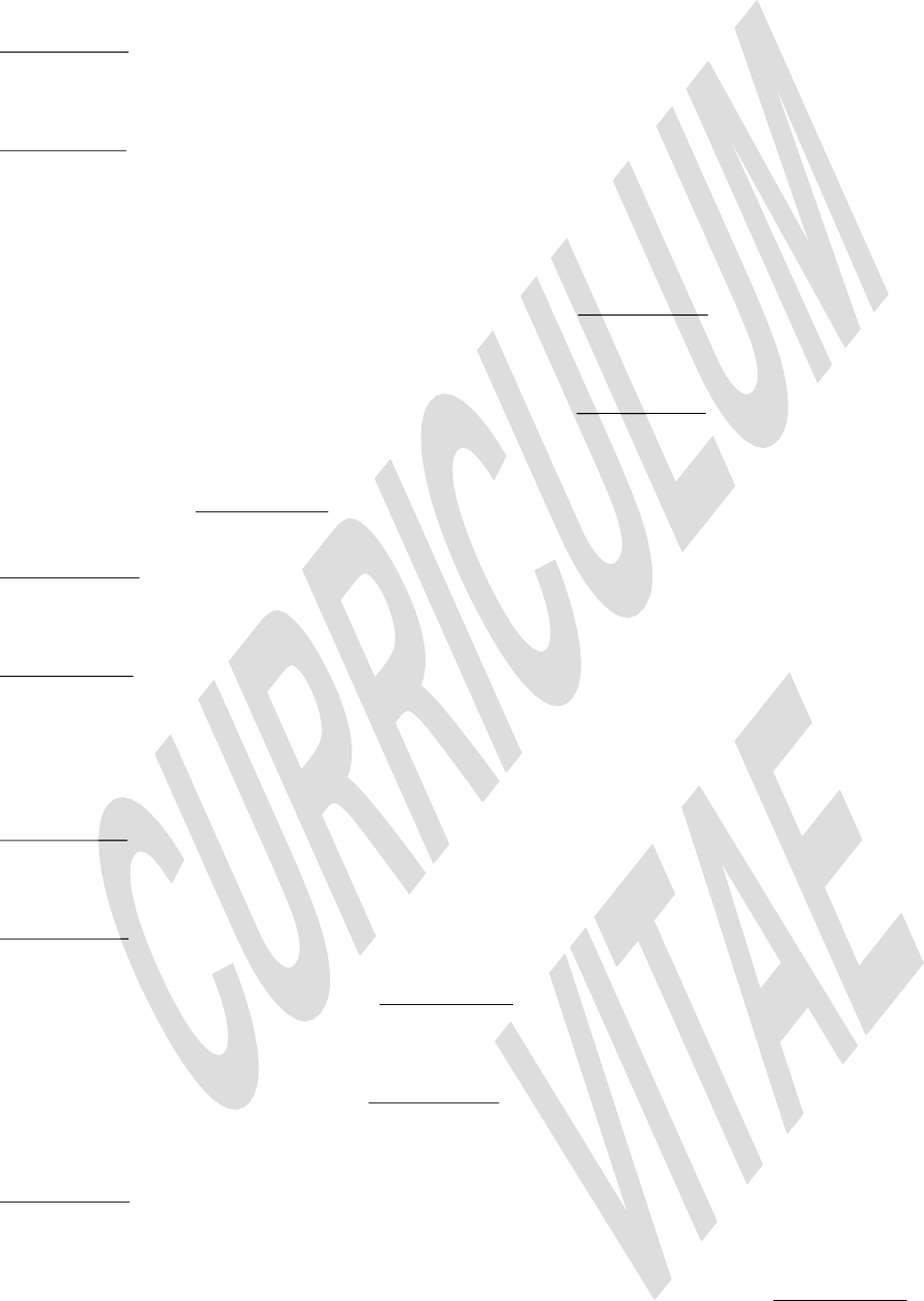
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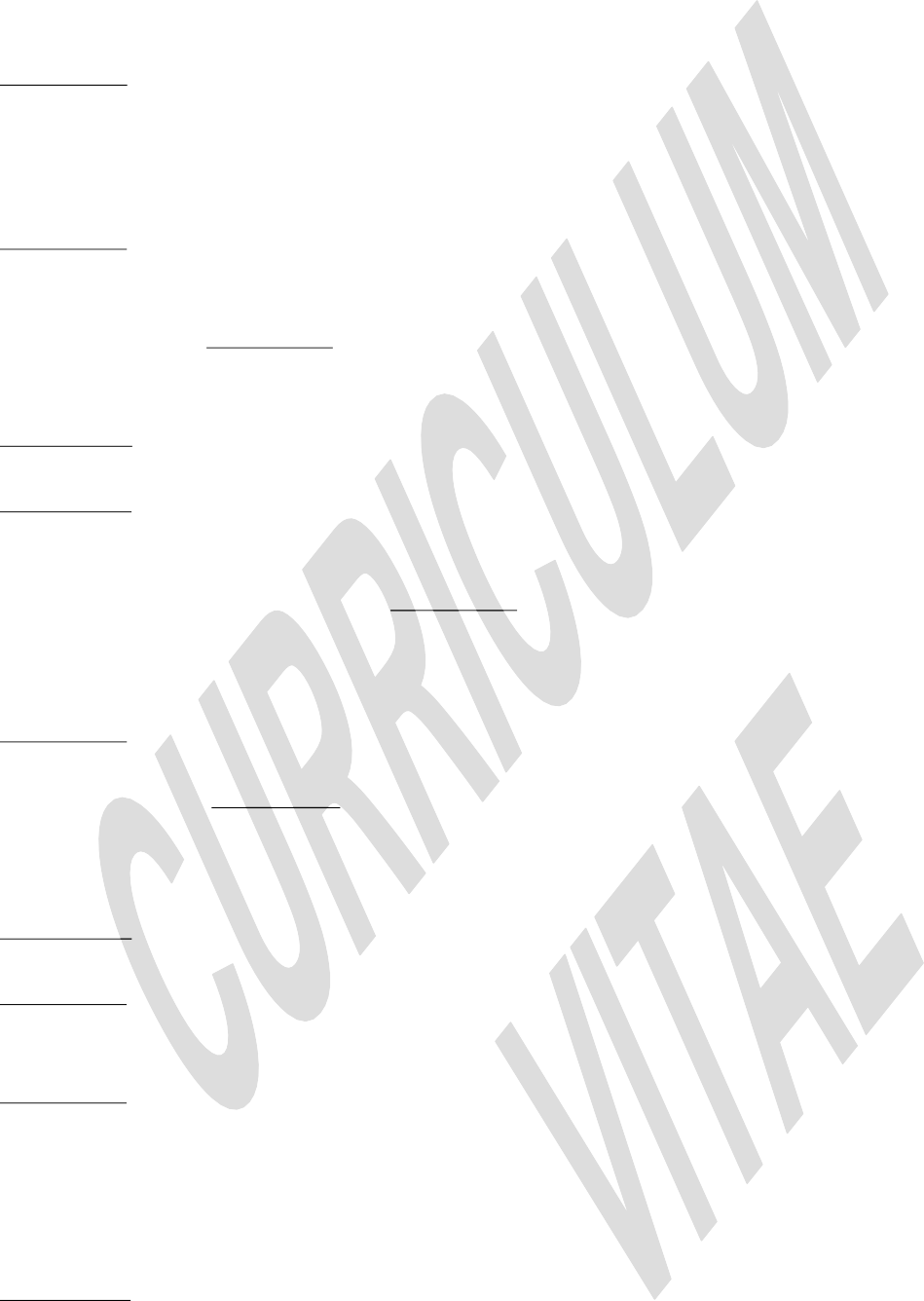
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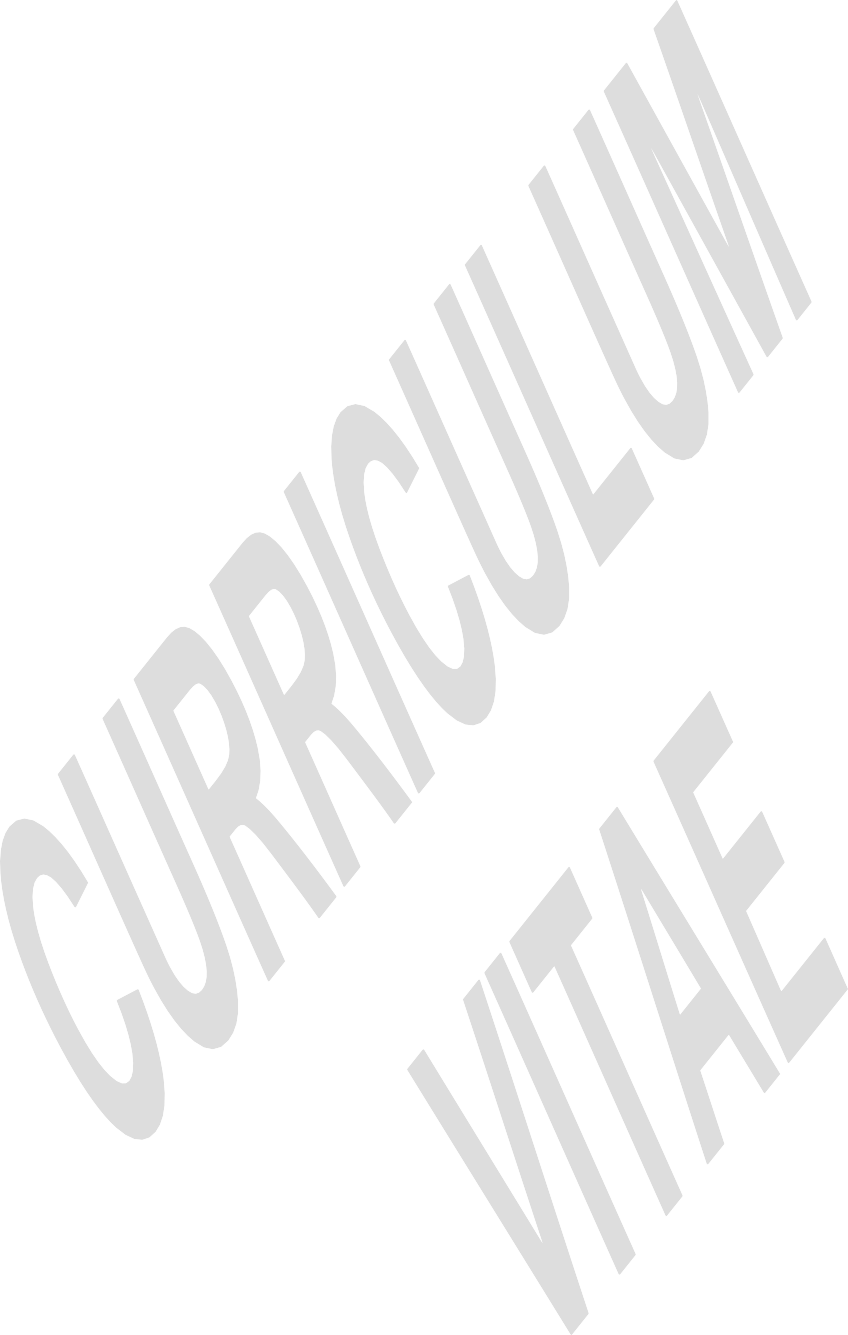
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