

UNIVERSITÀ DEGLI STUDI DI MILANO

Procedura di selezione per la chiamata a professore di II fascia da ricoprire ai sensi dell'art. 18, comma 1, della Legge n. 240/2010 per il settore concorsuale 03/A2 - Modelli e Metodologie per le Scienze Chimiche,
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Irina Vlasova**CURRICULUM VITAE****INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)**

COGNOME	VLASOVA
NOME	IRINA
DATA DI NASCITA	13.10.1979

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	DATI PERSONALI: Data di nascita: 13.10.1979 Cittadinanza: Federazione Russa Stato civile: Sposata Bambini: il figlio	
	LINGUE: Russo – nativo Italiano – eccellente Inglese – eccellente	

ISTRUZIONE E FORMAZIONE

Maggio 2005	PhD in scienze fisiche e matematiche, Facoltà di Fisica, Università Statale di Mosca "Lomonosov", Mosca, Russia <i>Il tema del dissertazione di PhD: "The application of optical spectral methods in researches of blood serum components" (specialita - ottica)</i>
Gennaio 2002	Diploma in Fisica, Facoltà di Fisica, Università Statale di Mosca "Lomonosov", Mosca, Russia <i>Il tema del diploma: "The role of nitric oxide in the pathogenesis of atherosclerosis: antioxidant and prooxidant action of nitric oxide and its metabolites"</i>
Giugno 1996	Superiore scuola (medaglia d'argento), Mosca, Russia

ESPERIENZA LAVORATIVA:

<i>Marzo 2009 – attualmente</i> Docente (Senior Lecturer), 450 ore per un anno accademico Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia
<i>Settembre 2005 – Marzo 2009</i> Assistente di professore (insegnante) Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia
<i>Aprile 2005 – Settembre 2005</i> Ricercatore junior Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia
<i>Aprile 2002 – Aprile 2005</i> PhD studentessa Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia

ESPERIENZA PROFESSIONALE

<u>Ricerche scientifiche e interessi professionali</u> - UV-VIS spectroscopy, FTIR spectroscopy, correlation spectroscopy of scattered light for protein solutions and dyes solutions - Physical chemistry, chemical physics and biophysics, interaction protein and fluorescent dyes, biopolymers, oxidative stress, reactive oxygen species, free radical reactions
<u>Insegnamento</u> <i>2005 – attualmente</i> Insegnamento di lezioni di “Biofisica” (per bachelor e master) Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia <i>2002 – attualmente</i> Insegnamento di practicum di fisica generale (per bachelor) Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia <i>2006 – 2008</i> Insegnamento di seminari di fisica generale (per bachelor) Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia
<u>Supervisione</u> <i>2017 - attualmente</i> 1 master studente, 1 bachelor studente Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia <i>2012-2016</i> PhD studente Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia <i>2003-2017</i> 12 master studenti, 2 bachelor studenti Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia

<p><u>Capacita e competenze organizzative</u></p> <p>1. Presidente del comitato organizzatore della Scuola-Conferenza “I metodi moderni della biofisica sperimentale” per bachelori studenti, masteri studenti, PhD studenti (2013, 2014, 2015, Mosca, Russia)</p> <p>2. Direttore del gruppo scientifico “Spettroscopia di sangue” in Facolta di Fisica, Universita Statale di Mosca “Lomonosov” (2005 - attualmente)</p> <p>3. Organizzatore senior di pratica “La spettroscopia in biofisica” per studenti di Universita Statale di Mosca “Lomonosov” (2012 - attualmente)</p>
<p><u>Pubblicazioni</u></p> <p>- il numero totale di pubblicazioni – 128, di loro in giornale internazionale – 46 (in lingua inglese).</p> <p>- il numero di citazioni per Web of Science - 386</p> <p>- il numero di citazioni per Scopus – 390</p> <p>- H-index – 12.</p>
<p><u>Competenze tecniche e informatiche</u></p> <p>MS Word, Excel, Power Point, Adobe Photoshop, Opus Bruker, FL WinLab, UV WinLab.</p>

COLLABORAZIONI

- Prof. Dr. Mikhail Panteleev, Centro di Problemi Teorici di Farmacologia Fisica e Chimica RAS, Mosca, Russia
- Prof. Dr. Fasli Ataullakhanov, Centro di Ematologia, Oncologia e Immunologia Pediatrica, Mosca, Russia

PREMI

2013:

Il vincitore del concorso per giovani insegnanti e ricercatori della Universita Statale di Mosca “Lomonosov”

2011:

Il vincitore del concorso per giovani insegnanti e ricercatori della Universita Statale di Mosca “Lomonosov”

2009:

Premio per studenti di talento, PhD studenti e ricercatori giovani della Universita Statale di Mosca “Lomonosov”

2008:

Il vincitore del concorso per giovani insegnanti e ricercatori della Universita Statale di Mosca “Lomonosov”

2007:

Il vincitore del concorso per giovani insegnanti e ricercatori della Universita Statale di Mosca “Lomonosov”

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Premio per studenti di talento, PhD studenti e ricercatori giovani della Universita Statale di Mosca “Lomonosov”

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RACCOMANDAZIONI

Possono essere da:

- Prof. Dr. Mikhail Panteleev, Centro di Problemi Teorici di Farmacologia Fisica e Chimica RAS, Mosca, Russia, E-mail: mapanteleev@yandex.ru

- Prof. Dr. Fasli Ataullakhanov, Centro di Ematologia, Oncologia e Immunologia Pediatrica, Mosca, Russia, E-mail: ataullakhanov.fazly@gmail.com

- Prof. Dr. Vladimir Belokurov, Università Statale di Mosca “Lomonosov”, Facoltà di Fisica, Mosca, Russia, E-mail: vvbelokurov@yandex.ru

- Prof. Dr. Vladimir Koshelev, Università Statale di Mosca “Lomonosov”, Facoltà di Medicina Fondamentale, Mosca, Russia, E-mail:koshelevv@fbm.msu.ru

PUBBLICAZIONI

1. Vlasova I.M., Vlasov A.A., Grapendaal G.R., Saletsky A.M. Association constants in the Bovine Serum Albumin / Human Serum Albumin – Tween 20 system in aqueous solutions. // **Russian Journal of Physical Chemistry A**, 2018, v. 92, № 4, p. 712-716.

2. Vlasova I.M., Vlasov A.A., Saletskii A.M. Complexation of serum albumins and Triton X-100: quenching of tryptophan fluorescence and analysis of the rotational diffusion of complexes. // **Russian Journal of Physical Chemistry A**, 2016, v. 90, № 7, p. 1479-1483.

3. Vlasova I.M., Kuleshova A.A., Vlasov A.A., Saletsky A.M. Rotational diffusion of markers of the fluorescein family in solutions of bovine serum albumin according to the data from polarized fluorescence. // **Russian Journal of Physical Chemistry A**, 2015, v. 89, № 2, pp. 336-340.

4. Vlasova I.M., Zhuravleva V.V., Saletsky A.M. Rotational diffusion of bovine serum albumin denaturated by sodium dodecyl sulfate according to data from tryptophan fluorescence. // **Russian Journal of Physical Chemistry A**, 2014, v. 88, № 3, pp. 551-556.

5. Vlasova A.A., Kuleshova A.A., Vlasov A.A., Saletsky A.M. Investigation of binding of nanomarkers of fluorescein family to bovine serum albumin at various values of pH: spectroscopic study. // **Journal Molecular Structure**, 2013, v. 1051, pp. 86-94.

6. Vlasova I.M., Zhuravleva V.V., Saletsky A.M. Denaturation of bovine serum albumin initiated by sodium dodecyl sulfate as monitored via the intrinsic fluorescence of the protein. // **Russian Journal of Physical Chemistry B**, 2014, v. 8, № 3, pp. 385-390.

7. Vlasova I.M., Vlasov A.A., Saletsky A.M. Interaction of ionic detergent cetyltrimethylammonium bromide with human serum albumin at various values of pH: spectroscopic study. // **Journal of Molecular Structure**, 2010, v. 984, pp. 332-338.
8. Vlasova I.M., Zhuravleva V.V., Vlasov A.A., Saletsky A.M. Interaction of cationic surfactant cetyltrimethylammonium bromide with bovine serum albumin in dependence on pH: a study of tryptophan fluorescence. // **Journal Molecular Structure**, 2013, v. 1034, pp. 89-94.
9. Vlasova I.M., Bukharova E.M., Kuleshova A.A., Saletsky A.M. Spectroscopic investigations of interaction of fluorescent nanomarkers of fluorescein family with human serum albumin at different values of pH. // **Current Applied Physics**, 2011, v. 11, № 5, pp. 1126-1132.
10. Vlasova I.M., Zhuravleva V.V., Saletsky A.M. Denaturation of Bovine Serum Albumin under the Action of Cetyltrimethylammonium Bromide, According to Data from Fluorescence Analysis. // **Russian Journal of Physical Chemistry A**, 2013, v. 87, № 6, pp. 1027-1034.
11. Vlasova I.M., Saletsky A.M. Investigation of denaturation of human serum albumin under action of cetyltrimethylammonium bromide by Raman spectroscopy. // **Laser Physics**, 2011, v. 21, № 1, pp. 239-244.
12. Vlasova I.M., Kuleshova A.A., Panchishin A.I., Vlasov A.A. Investigation of interaction of fluorescent nanomarker Bengal Rose with human serum albumin at various values of pH. // **Journal Molecular Structure**, 2012, v. 1016, p. 1-7.
13. Vlasova I.M., Saletsky A.M. Raman spectroscopy in comparative investigations of mechanisms of binding of three molecular probes – fluorescein, eosin and erythrosin – to human serum albumin. // **Laser Physics Letters**, 2008, v. 5, № 11, pp. 834-839.
14. Vlasova I.M., Zhuravleva V.V., Saletsky A.M. Determination of the Parameters of the Rotational Diffusion of Complexes of Serum Albumins with Triton X100 from Analysis of Tryptophan Fluorescence. // **Russian Journal of Physical Chemistry B**, 2013, v. 7, № 5, pp. 562-567.
15. Vlasova I.M., Zhuravleva V.V., Saletskii A.M. Denaturation of Human Serum Albumin under the Action of Cetyltrimethylammonium Bromide According to Fluorescence Polarization Data of Protein. // **Russian Journal of Physical Chemistry A**, 2012, v. 86, № 3, pp. 509-515.
16. Vlasova I.M., Saletsky A.M. Denaturation of Human Serum Albumin Initiated by Cetyltrimethylammonium Bromide as Monitored via the Intrinsic Fluorescence of the Protein and Fluorescence of an Eosin Probe. // **Russian Journal of Physical Chemistry B**, 2011, v. 5, № 2, pp. 320-325.
17. Vlasova I.M., Buharova E.M., Saletsky A.M. Rotational Diffusion of Fluorescein Family Markers in Solutions of Human Serum Albumin. // **Russian Journal of Physical Chemistry A**, 2011, v. 85, № 5, pp. 876-880.
18. Vlasova I.M., Saletsky A.M. Investigation of neuroprotective action of drug “Semax” at ischemic insult by Raman spectroscopy method by estimation of damage of low density lipoprotein of rat blood. // **Laser Physics**, 2009, v. 19, № 12, pp. 2219-2223.
19. Vlasova I.M., Saletsky A.M. Investigation of influence of different values of pH on mechanisms of binding of human serum albumin with markers of fluorescein family. // **Journal of Molecular Structure**, 2009, v. 936, pp. 220-227.

- 20 Vlasova I.M., Polyansky D.V., Saletsky A.M. Raman spectroscopy in investigations of mechanism of human serum albumin denaturation under action of sodium dodecyl sulfate. // **Laser Physics Letters**, 2007 г., v. 4, № 12, pp. 890-894.
21. Vlasova I.M., Buravtsov D.E., Dolmatova E.V., Koshelev V.B., Saletsky A.M. Research of protective action of ischemic preconditioning on components of blood serum at a brain ischemia by Raman spectroscopy method. // **Laser Physics Letters**, 2006, V. 3, № 8, pp. 401-405.
22. Vlasova I.M. Investigation of denaturation of human serum albumin under action of ionic surfactants by analysis of tryptophan fluorescence of protein. // **In the book «Serum Albumin: Structure, Functions and Health Impact»**, Novapublishers.com, 2012, Editors: Robert J. Alekseev and Alisa L. Rebane, ISBN: 978-1-62100-231-4, pp. 117-131.
23. Vlasova I.M., Gordeeva Ju.A., Vlasov A.A., Saletsky A.M. Determination of constants of binding of fluorescein family nanomarkers to human serum albumin. // **Moscow University Physics Bulletin**, 2012, v. 67, № 2, pp. 208-212.
24. Vlasova I.M., Kuleshova A.A., Vlasov A.A., Saletsky A.M. Polarized fluorescence in investigation of rotational diffusion of the fluorescein family markers in bovine serum albumin solutions. // **Moscow University Physics Bulletin**, 2014, v. 69, № 5, pp. 401-405.
25. Vlasova A.A., Kuleshova A.A., Saletsky A.M. The Fluorescence Characteristics and the Molecular Association of the Rose Bengal Nanomarker in Human SerumAlbumin Solutions. // **Moscow University Physics Bulletin**, 2011, v. 66, № 5, pp. 458-462.
26. Vlasova A.A., Kuleshova A.A., Vlasov A.A., Saletsky A.M. Molecular association processes and fluorescent characteristics of nanomarkers of the fluorescein family in solutions of bovine serum albumin. // **Moscow University Physics Bulletin**, 2013, v. 68, № 4, pp. 304-310.
27. Vlasova A.A., Polyansky D.V., Vlasov A.A., Saletsky A.M. // Investigation of rotational diffusion of the Rose Bengal fluorescent nanomarker in human serum albumin solutions. // **Moscow University Physics Bulletin**, 2013, v. 68, № 3, PP. 231-234.
28. Vlasova I.M., Saletsky A.M. Polarized Fluorescence in the Study of Rotational Diffusion of Human Albumin during Denaturation under the Action of SDS. // **Moscow University Physics Bulletin**, 2011, v. 66, № 1, pp. 59-63.
29. Vlasova I.M., Saletsky A.M. Raman spectroscopy in investigations of secondary structure of human serum albumin at binding of nanomarkers of fluorescein family. // **Laser Physics**, 2010, v. 20, № 9, pp. 1844-1848.
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32. Vlasova I.M., Saletsky A.M. Fluorescent characteristics of probes of fluorescein family in human serum albumin solutions. // **Moscow University Physics Bulletin**, 2009, v. 64, № 4, pp. 412-416.

33. Vlasova I.M., Saletsky A.M. Fluorescence of tryptophan in the denaturation of human serum albumin under the action of sodium dodecyl sulfate. // **Russian Journal of Physical Chemistry B**, 2009, v. 3, № 6, pp. 976-980.
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35. Vlasova I.M., Buravtsov D.E., Saletsky A.M. Luminescent analysis of blood components in investigations of neuroprotective properties of "Semax" at brain ischemia. // **Journal of Applied Spectroscopy**, 2009, v. 76, № 1, p. 121-126.
36. Vlasova I.M., Saletsky A.M. Raman spectroscopy in investigations of mechanism of binding of human serum albumin to molecular probe fluorescein. // **Laser Physics Letters**, 2008 г., v. 5, № 5, pp. 384-389.
37. Buravtsov D.E., Vlasova I.M., Saletsky A.M. Raman spectroscopy and fluorescence analysis in investigation of protective action of ischemic preconditioning at ischemic insult by estimation of damage of low density lipoprotein of blood. // **Photomedicine and Laser Surgery**, 2008, v. 26, № 3, pp. 181-187.
38. Vlasova I.M., Polyansky D.V., Saletsky A.M. Investigation of mechanism of binding of molecular probe eosin to human serum albumin by Raman spectroscopy method. // **Laser Physics Letters**, 2007, V. 4, № 5, pp. 390-394.
39. Vlasova I.M., Saletsky A.M. Analysis of protective action of ischemic preconditioning by fluorescent spectra of blood serum and fluorescent probes. // **Journal of Applied Spectroscopy**, 2007, v. 74, №3, p. 421-424.
40. Vlasova I.M., Zemlyansky A.Yu, Saletsky A.M. Spectral-luminescent characteristics of eosin in human serum albumin solutions at denaturation under action of sodium dodecyl sulfate. // **Journal of Applied Spectroscopy**, 2006, v. 73, № 5, p. 743-747.
41. Vlasova I.M., Saletsky A.M. Spectral-luminescent effect of damaging action of brain ischemia on blood serum components. // **Journal of Applied Spectroscopy**, 2005, v. 72, № 6, p. 906-910.
42. Vlasova I.M., Mikrin V.E., Saletsky A.M. Investigation of CsCl-induced aggregation of serum albumin depending on pH by Raman spectroscopy method. // **Laser Physics Letters**, 2005, V. 2, № 4, pp. 204-207.
43. Baranov A.N., Vlasova I.M., Saletsky A.M. Investigation of ischemia damaging action on blood serum by Raman spectroscopy method. // **Laser Physics Letters**, 2004, V. 1, № 11, pp. 555-559.
44. Baranov A.N., Vlasova I.M., Mikrin V.E., Saletsky A.M. Laser correlation spectroscopy of denaturation of serum albumin. // **Journal of Applied Spectroscopy**, 2004, v. 71, № 6, p. 911-915.
45. Baranov A.N., Vlasova I.M., Saletsky A.M. The investigation of aggregation of serum albumin. // **Journal of Applied Spectroscopy**, 2004, v. 71, № 2, p. 222-226.
46. Vlasova I.M., Dolmatova E.V., Koshelev V.B., Saletsky A.M. Investigation of ischemia damaging action on blood serum structure by laser spectroscopy methods. // **Laser Physics Letters**, 2004, V. 1, № 8, pp. 417-420.

Gentili Professori e Commissione Giudicatrice!

Sto cercando il lavoro come Professore Universitario di ruolo di II fascia All' Università degli Studi di Milano con l'aiuto del programma "EU Blue Card".

My investigations are in the area of physical chemistry of interaction of biological molecules with ligands (for example fluorescent markers) with the help of UV-VIS spectroscopy, fluorescence spectroscopy and FTIR spectroscopy. The analysis of the mechanism of binding of biomolecules (such as proteins molecules) with different ligands (such as fluorescent markers) is extremely interesting from the point of view of a biomedicine and pharmaceuticals, so from the point of view of bionanotechnology: for example, at creation of new drugs and their tests. The fluorescent markers are widely applied to research structurally-dynamic states of protein molecules.

My research and lectures on biophysical aspects of physical chemistry can be useful and interesting for students of Università degli Studi di Milano.

Sarò felice di lavorare all' Università degli Studi di Milano.

Cordiali Saluti,

Vlasova Irina

Data

27.02.2019

Luogo

Mosca