Curriculum vitae

I. Academic/Professional Background

A. Name: **Shiva Kumar Rastogi** Title: **Dr.**

B. Educational Background

Degree	*Year*	*University*	*Major*	*Thesis/Dissertation*
Ph.D.	2003	Central Drug Research Institute, Lucknow, U.P.- 226 001, India. (Dr. R.M.L. Avadh University Faizabad, UP, India)	Medicinal Chemistry	
M. Sc.	1998	Lucknow University, UP, India	Organic Chemistry	
B. Sc.	1996	Lucknow Christian Degree College Lucknow, UP, India	Chemistry	

C. University Experience

Position	*University*	*Dates*
Associate Professor of Instruction	Texas State University San Marcos, TX -78666, USA	Aug 2024 – to Date
Lecturer	Texas State University San Marcos, TX -78666, USA	Aug 2019 – July 2024
Lecturer (75%) Research Associate (25%)	Texas State University San Marcos, TX -78666, USA	Jan 2019 – July 2019
Research Associate / Lecturer (part time)	Texas State University San Marcos, TX -78666, USA	Oct 2012 – Dec 2018
Postdoctoral Res. Fellow	University of Idaho Moscow, ID - 83844, USA	July 2006 - Sep 2012
Postdoctoral Res. Fellow/ Lecturer	New Mexico Institute of Mining and Technology Socorro, NM – 83801, USA	Oct 2004 - June 2006

D. Relevant Professional Experience

Position	*Entity*	*Dates*
Research Scientist	Torrent Pharmaceutical Ltd. Co. Gujarat – 382428, India	Feb 2003 – May 2004

E. Other Professional Credentials (licensure, certification, etc.)

A. Professional Membership:

2004: American Chemical Society member
2006-2012: Assistant Editor: Versita Emerging Science Publisher; Versita Ltd., 78 York Street, London W1H 1DP, Great Britain. Since 2012-2014

Since 2008: Refereed for Journal Manuscripts /Reviews/Book Proposal / Conference Over 300 invitations have been received from various journals since year 2008 and around 250 manuscripts have been reviewed.

Serves as Poster Judge:

5. Summer,2022; Dr. Rastogi served as a REU scientific poster presentation judge in Ingram Building, Texas State University, San Marcos, TX - 78666, USA.

4. Feb 06,2020; 1:30-2:45 PM: Dr. Rastogi served as an invited scientific poster judge for "Women in Science and Engineering Initiative (WiSE)" Program in LBJ-Ballroom, Texas State University, San Marcos, TX - 78666, USA.

3. March 08, 2019; 1:30-2:45 PM: Dr. Rastogi served as an invited scientific poster judge for "Women in Science and Engineering Initiative (WiSE)" Program in LBJ-Ballroom, Texas State University, San Marcos, Tx - 78666, USA.

2. Jan 31, 2019; 10:00 AM - 12:00 PM: Dr. Rastogi did community service as an invited judge for science project for Texas Preparatory (elementary) school,400 Uhland, San Marcos, TX - 78666, USA

1. Served judge for undergraduate students's research scientific poster student in "Chemistry and Biochemistry Colloquium held in Flower Hall (Rm # 113) in Texas State University, San Marcos TX – 78666, USA on April 06, 2018 from 1:30 – 3:30 PM

Volunteer Work:

Community Service:
Since Fall-2021: Dr. Rastogi has developed and running a service-learning course for Organic chemistry lab course (CHEM-2141/2142) on the topic: - Service-Leaning Course from Organic Chemistry Research Lab for Fats-Oils-Grease (FOG) Program to Enhance our Neighborhood.

Jan 16, 2020; 9:00AM - 2:00 PM: Dr. Rastogi perform Cyanotyping (photochemistry) experiments for around 80 fifth grades students from Hernandez Primary School, San Marcos TX, with two undergraduate students in Texas State University, Department of Chemistry (Rm No. 114), San Marcos, TX - 78666, USA

Jan 16, 2019: I perform Cyanotyping (photochemistry) experiments for 110 fifth grades students from Hernandez Primary School, San Marcos TX, with five undergraduate students and Dr. M. J. Paterson from 9:00-2:00 PM

Dec 10, 2018: First time we tried to track general chemistry - 2 ACS booklets in final exam using barcoding system. Students swipe their TX State ID and get barcoded ACS booklet. In this way, we know particular booklet student have and same way we used barcode scanning for returning. Our method went successfully, however few modifications require to improve the system. Thanks Univ. of TX Chemistry team.

July 27, 2018: Dr. Rastogi volunteer on sugar candy making table in "Chemistry in Food Science Event" held in public library San Marcos, TX – 78666, USA from 2:00 – 3:00 PM, Organized by Dr. Benjamin

Martin, Associate Professor, Department of Chemistry and Biochemistry, University of Texas, San Marcos, TX – 78666, USA

II. TEACHING

A. Teaching Honors and Awards:

Sep, 2020: **Teaching Award of Honor** at Texas State University in recognition of exemplary service during the Covid-19 crisis in Spring 2020 semester

May 18, 2019: **Part-Time Faculty Excellence in Teaching Award** from Department of Chemistry and Biochemistry, College of Science and Engineering, Texas State University, San Marcos, TX

B. Courses Taught:

Academic courses

Fall-2024 till today: Intro Chem CHEM-1310, to nonscience major students (77), TXST Univ.
Fall-2024: Gen-chem 1341, course to undergraduates' students (85 students), TXST Univ.
Spring-2024: Org-chem CHEM 2330, Intro to Organic Chemistry to nonscience major, TXST Univ.
Spring-2020: Gen-chem1335, course to engineering students (80 students), TXST Univ.
Fall 2019: Gen-chem1335-001course to engineering students (147 students), TXST Univ.
Fall 2019: Gen-chem1342-002 course to freshmen students (106 students), TXST Univ.
Spring 2019: Gen-chem1335 (two sec), to engineering students, TXST Univ.
Fall 2018: Gen-chemistry1342 (sec. 004), to undergraduate students, TXST Univ.
Spring2018: Gen-chem1341 (sec 263), to undergraduate students, TXST Univ.
Fall 2014: General Chemistry1342 (Sec 10), to undergraduate students, TXST Univ.
Fall 2013: General Chemistry-1341 (Sec. 01), to undergraduate students, TXST Univ.
Spring 2006: Gen-chemistry-001, to undergraduate students at NMIMT, Socorro, NM

Laboratory courses:

From Spring-2020 till today: Teaching and coordinating undergraduate level, organic chemistry laboratory courses (CHEM-2141 and (CHEM-2142) face-to-face and on-line method, TXST Univ.
June-2024-25 : CHEM 2130 organic chemistry to nonscience major students.
Spring-2025 : BIO 4299 (2 credit) Undergraduate research to bio major student (1)
Fall-2024 : BIO 4299 (2 credit) Undergraduate research to bio major student (1)
Summer 2011: Laboratory practical course, to four undergraduate students from Idaho-INBRE Program
Summer 2011: Ed-Curriculum and Instruction (EDCI) 505 (8 credit) laboratory practical, to high school teachers at BNAL, UI and CDA, ID
Summer 2010: Laboratory training, for two undergraduate students from Idaho-INBRE
Summer 2010: EDCI 505 (8 credit) laboratory practical, to high school teacher at BNAL, UICDA, ID
Decmber2009: Professional development (1 credit) course, to high school teacher at BNAL, UICDA, ID

Other Teaching and Coordinator:

Since Fall 2023: Coordinated and taught undergraduate level chemistry laboratory safety training to instructional associates (IAs) at Texas State University, San Marcos, TX-78666, USA

Service:

Since Fall 2021: Service-Learning Excellence (SLE) program, running a SLE program with undergraduate organic chemistry laboratory students, and participating and contributing in a "Fats, Oils, and Grease (FOG) program" of City of San Marcos, TX, USA

Since Fall 2022: **Library representative** for department of chemistry and biochemistry at Texas State University, San Marcos, TX-78666, USA

Since Fall 2022: **Academic advisor of "Pre-Pharmacy Society** of undergraduate student at Texas State University, San Marcos, TX-78666, USA.

Committee member:

Fall- 2024-Spring-2025: Served as chair for Nontenure Line Faculty (NLF) annual evaluation committee member for year 2024 at Texas State University, San Marcos, TX-78666, USA.

Since Fall 2023: Nontenure Line Faculty (NLF) annual evaluation committee member at Texas State University, San Marcos, TX-78666, USA.

Since Fall 2022: Nontenure Line Faculty (NLF) promotion and title series committee at Texas State University, San Marcos, TX-78666, USA.

C. Graduate Theses/Dissertations, Honors Theses, or Exit Committees (if supervisor, please indicate):

In spring – 2022 semester, Dr. Rastogi has supervised **Veronica C. Ciliberto** un undergraduate student and IA of CHEM2141, for writing her undergraduate thesis for Honor college.

"Title: Green Approach Towards Triazole Forming Reactions for Developing Anticancer Drugs"
Citation: Ciliberto, V. C. (2022). *Green approach toward triazole forming reactions for developing anticancer drug*.
Citations:
Texas State University, San Marcos, Texas.
https://digital.library.txstate.edu/handle/10877/15966

D. Courses Prepared and Curriculum Development:

Summer 2010: EDCI 505 (16 credit) laboratory practical
for a high school teacher at BNAL, UICDA, ID

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press)

1. Chapters in Books:

7. (Invited book chapter) Shiva K. Rastogi*, Mosab A. Odeh and Pranav K. Rastogi, Chapter-5 : Sodium-glucose Cotransporter-2 (SGLT2) in Diabetes Mellitus, for Elsevier publisher and Chapter-6: Shiva K. Rastogi* and Anjali M. Aggarwal, Insulin Agonist in Diabetes mellitus (December-03, 2024; First draft sends to Dr. Manisha Nidhar and Dr. Ashish Kumar Tewari).

6. (Invited short review) Shiva K. Rastogi*; Veronica C. Ciliberto; Monica Z. Trevino, Brooke A. Campbell, William J. Brittain, Green Approach toward Triazole forming Reactions for Developing Anticancer Drugs, Current Organic Chemistry. 2023, https://doi.org/10.2174/1570179420666230508125144 PMID: 37157212 (Manuscript # BMS-COS-2022-HT13-3513-3; in press; Communicated: Aug-24, 2022; published May-08, 2023) [impact factor = 1.8].

5. (Invited short review) **Shiva K. Rastogi***, Jennifer K Dunnigan, Adelyne C. Towne, Zhenze Zhao, Liqin Du and William J. Brittain, Photopharmacology of Azo-Combretastatin-A4: Tubulin Polymerization Inhibitors utilizing Green Chemistry Key Step, *Curr. Org. Chem.,* **2021**, *25*(20), 2457-2474. [impact factor = 1.933].

4. William J. Brittain, **Shiva K. Rastogi**, Robert A. Rogers, Peter Rinaldi. Physical Rotation Barrier in Z-azobenzene: A Physical Organic Problem in Honor of J.D.R. *J. Phys. Org. Chem.* **2018**, *31*, e3847.

3. Alexander Kornienko, Véronique Mathieu, **Shiva K. Rastogi**, Florence Lefranc, and Robert Kiss. Therapeutic Agents Triggering Non-Apoptotic Cancer Cell Death. *J. Med. Chem.* **2013**, *56*(12), 4823-4839.

2. Sanjay Batra, Tangam Srinivasan, **Shiva K. Rastogi** and Bijoy Kundu. Identification of enzyme inhibitors using combinatorial libraries. *Curr. Med. Chem.*, **2002**, 9, 307- 319.

1. Bijoy Kundu, Sanjay K. Khare, **Shiva K. Rastogi**. Combinatorial Chemistry: polymer supported synthesis of peptide and nonpeptides. *Progress in Drug Research*, **1999**, 53, 89-156.

2. Articles

a. Refereed Journal Articles:

39. **Shiva K Rastogi*,** Zhenze Zhao, M. Brenton Gildner, Ben Shoulders, Tara L. Velasquez, Madeleine O. Blumenthal, Lei Wang[†], Xiopeng Li[†], Todd W. Hudnall, Tania Betancourt[‡], Liqin Du, and William J. Brittain, Synthesis, Optical Properties, and in vitro Cell Viability of Novel Spiropyran and their Photostationary States, (accepted on Dec. 27, **2020**), *Tetrahedron,* 80, 2021, 131854

38. Meredith, H. Barbee, Tatiana, Kouznetsova, Scott L. Barrett, Gregory R. Gossweiler, Yangju Lin, **Shiva K. Rastogi**, William J. Brittain, and Stephen L. Craig Substituent effect and mechanism in a mechanochemical reaction *J. Am. Chem. Soc.* **2018,** *140* (40), 12746-12750

37. **Shiva K. Rastogi,**[†*] Zhenze Zhao,[†] Scott L. Barrett,[†] Spencer D. Shelton,[†] Martina Zafferani[§], Hailee E. Anderson,[†] Madeleine O. Blumenthal,[†] Lindsey R. Jones,[†] Lei Wang,[‡] Xiaopeng Li,[‡] Craig N. Streu,[§]

Liqin Du,[†] and William J. Brittain[†*] Photoresponsive Azo-Combretastatin A-4 Analogues *Er. J Med Chem.* **2018** 143, 1-7

36. **Shiva Kumar Rastogi***; Hailee E. Anderson; Joseph Lamas; Scott L. Barrett, Travis Cantu; Stefan Zauscher; William J. Brittain and Tania Betancourt, Enhanced Release of Molecules upon UV Light Irradiation from Photo-Responsive Hydrogels Prepared from Bifunctional Azobenzene and Four-Arm Poly(ethylene glycol), *ACS Appl. Mater. Interfaces. ACS Appl. Mater. Interfaces.* **2018**, 10, 30071-30080

35. Chang Ji, Clayton Lambert, Mikaela Enters, **Shiva Rastogi**, Christopher Brown, Ben Shoulders, and William Brittain, Reaction Mechanism for the Formation of Dialkylated Nickel(II) Salen involved in the Catalytic Reduction of (Bromomethyl)cyclopropane, *J. Electrochem. Soc.* (*Organic and Bioelectrochemistry Section), J. Electrochem. Soc.* **2016**, *163*(14), G206-210

34. Brown, C.; **Rastogi, S. K.**; Barrett, S. L.; Anderson, H. E.; Twichell, E.; Gralinski, S.; McDonald, A.; Brittain, W. J., Differential Azobenzene Solubility Increases Equilibrium *Cis/Trans* Ratio in Water, *J. Photochem. Photobiol. A,* **2017**, *336*, 140-145

33. Karolyn Barker; **Shiva K Rastogi**, Jose Dominguez, Travis Cantu, and Jennifer Irvin, William Brittain and Tania Betancourt, Biodegradable DNA-Enabled Poly(Ethylene glycol) Hydrogels by Copper-free Click Chemistry, *J. Biomat. Sci.* **2016**, *27*(1) 22-39

32. **Rastogi, Shiva**; Rogers, R. Aaron; Shi, Justin; Gao, C; Rinaldi, Peter; Brittain, William, Conformational Dynamics of ortho-Fluoro Substituted Z-Azobenzene, ***J. Org. Chem.*** **2015**, *80*, 11485-11490

31.**Shiva K. Rastogi**, Aaron Rogers, Christopher T. Brown, Cindy Salinas, Katherine M. Martin, Jacob Armitage, Christopher Dorsey, Gao, Peter Rinaldi and William J. Brittain, Through-Space ^{19}F-^{19}F Spin-Spin Coupling in *ortho*-Fluoro-Substituted *cis*-Azobenzene, *Mag. Reson. Chem.* **2015**, *54*, 126-131.

30. Renpeng Gu; Joseph Lamas; **Shiva K Rastogi**, Xiaopeng Li, William Brittain and Stefan Zauscher, Photocontrolled micellar aggregation of amphiphilic DNA-azobenzene conjugates, *Colloids and Surf. B: Biointerfaces*, **2015**, *135*, 126-132

29. Rastogi, Shiva; Medellin, Derek; Kornienko, Alexander, C-H Functionalization Directed by Transformable Nitrogen Heterocycles: Synthesis of ortho-Oxygenated Arylnaphthalenes from Arylphthalazines, *Org. Biomol. Chem.*, **2014**, *12*, 410-413

28. Magedov, Igor; Frolova, Liliya; Romero, Anntherese; Karki, Menuka; Otero, Isaiah; Hayden, Kathryn; Evdokimov, Nikolai; Banuls, Laetitia; Rastogi, Shiva; Smith, W; Lu, Shi-Long; Kiss, Robert; Shuster, Charles; Hamel, Ernest; Bologa, Cristian; Rogelj, Snezna; Kornienko, Alexander, Exploring Natural Product Chemistry and Biology with Multicomponent Reactions. Discovery of a Novel Tubulin-Targeting Scaffold Derived from the Rigidin Family of Marine Alkaloids, *J. Med. Chem.,* **2013**, *56*(17), 6886-6900

25. **Shiva K. Rastogi**, Saswata Karmakar, A. Larry Branen, Patrick J. Hrdlicka, Sequence-unrestricted targeting of dsDNA using gold nanoparticles (AuNPs) conjugated to Invader probes, (Research completed in Sep. 2012; manuscript in preparation)

24. **Shiva K. Rastogi***, CharLene M. Gibson, Josh R. Branen, D. Eric Aston, A. Larry Branen, and Patrick J. Hrdlicka*. DNA Detection on Lateral Flow Test Strips: Enhanced Signal Sensitivity Using LNA-conjugated Gold Nanoparticles, *Chemical Communications* 2012, *48*(62), 7714 -7716.

23.**Shiva K. Rastogi***, Benjamin D. Denn, A. Larry Branen. Synthesis of highly fluorescent and thio-linkers stabilize gold quantum dots & nano clusters in DMF for Bio-labeling. *Journal of Nanoparticles Research* 2012, *14*, 673-684.

22. **Shiva K. Rastogi***, Parul Pal, D. Eric Aston, Thomas E. Bitterwolf, A. Larry Branen. 8-Aminoquinoline Functionalized Silica Nanoparticles: A Fluorescent Nanosensor for Detection of Divalent Zinc in Aqueous and in Yeast Cell Suspension. *ACS Applied Materials and Interfaces*. 2011, *3*(5), 1731-1739.

21. Parul Pal, **Shiva K. Rastogi***, Charlene M. Gibson, D. Eric Aston, A. Larry Branen, and Thomas E. Bitterwolf. Fluorescence Sensing of Zn(II) using Ordered Mesoporous Silica Materials (MCM-41) Functionalized with N-(Quinolin-8-yl)-2-(3-triethoxysilyl)propylamino) acetamide. *ACS Applied Materials and Interfaces.* 2011, *3*(2), 279-286.

20. **Shiva K. Rastogi***, Veronica J. Rutledge, CharLene Gibson, David Newcombe, Josh R. Branen and A. Larry Branen. Ag colloids and Ag Clusters over EDAPTMS-Coated Silica Nanoparticles: Synthesis, Characterization and Antibacterial Activity against *Escherichia coli*. *Nanomedicine: Nanotechnology, Biology and Medicine*, 2011, *7*(3), 305-314.

19. Yukta P Timalsina, Dennis Oriero, Timothy Cantrell, Tej Prakash, Joshua Branen, D Eric Aston, Kenneth Noren, James J Nagler, **Shiva Rastogi**, David N McIlroy and Giancarlo Corti. Characterization of a vertically aligned silica nanospring-based sensor by alternating current impedance spectroscopy. J. Micromech. Microeng. 2010, *20*, 095005 (10pp).

18. **Shiva K. Rastogi***, Veronica J. Rutledge, Josh R. Branen, and A. Larry Branen. Magnetic Bead and Fluorescent Silica Nanoparticles Based Optical Immunodetection of Staphylococcal enterotoxin B (SEB) in Bottled Water. *Sensors & Transducers Journal*, 2009, *7*, 191-202.

17. **Shiva K. Rastogi**, Nirankar N. Mishra, Michael E. Østergaard, Eric Cameron, Brian, Finaloski, Patrick J. Hrdlicka, and Wusi C. Maki. Hybridization Study of PNA-DNA in Solution and Surface-Solution Interface for Biosensor Application, *Analytical Letters*, 2009, *42*(15), 2485-2495.

16. Wuci C. Maki, Nirankar N. Mishra, Eric G. Cameron, Briam Filanoski, **Shiva K Rastogi**, Gary K. Maki, Nanowire-transistor based ultra-sensitive DNA methylation detection. Biosens. Bioelectron. 2008, 23(6), 780-787.

15. Nirankar N. Mishra, Wusi C. Maki, Eric Cameron, Ron Nelson, Paul Winterrowd, **Shiva K. Rastogi**, Brian Filanoski and Gary K. Maki. Ultra-sensitive detection of bacterial toxin with silicon nanowire transistor. *Lab Chip*, 2008, *8*(6), 868-871.

14. Brian Filanoski, **Shiva K. Rastogi**, Adam Cameron, Eric Cameron, Nirankar N. Mishra,Wusi Maki and Gary Maki. Non-Enzymatic Aqueous Peroxyoxalate Chemiluminescence Immune Detection Using a CCD Camera and CMOS Device, *Luminescence: Journal of Bioluminescence and Chemiluminescence,* 2008, *23*(5), 296-302.

13. Wusi C. Maki, Nirankar N. Mishra, **Shiva K. Rastogi**, Eric Cameron, Brian Filanoski and Gary K. Maki. Universal Bio-molecular Signal Transduction Based Nano Electronic Bio-detections System, *Sensor and Actuators B*, 2008, *133*, 547-554.

12. Brian Filanoski, **Shiva K Rastogi**, Eric Cameron, Nirankar N. Mishra, Paul Gallagher and Wusi Maki. A Novel Homogeneous Bioluminescence Energy Transfer Element for Bio-molecular Detaction on CCD and Hand-held CMOS Imaging Device. *Luminescence: Journal of Bioluminescence and Chemiluminescence,* 2008, *23*(1), 22-27.

11. Madhuri Manpadi, Pavel Y. Uglinskii, **Shiva K. Rastogi**, Karen M. Cotter, Yin-Shan C. Wong, Lisa A. Anderson, Amber J. Ortega, Severine Van slambrouck, Wim F. A. Steelant, Snezna Rogelj, Paul Tongwa, Mikhail Yu. Antipin, Igor V. Magedov and Alexander Kornienko. Three-Component Synthesis and Anticancer Evaluation of Polycyclic Indenopyridines Lead to the Discovery of a Novel Indenoheterocycle with Potent Apoptosis Inducing Properties. *Organic & Biomolecular Chemistry*, 2007, *5*(23), 3865-3872.

10. **Shiva K. Rastogi** and Alexander Kornienko. A Solution to the Stereochemical Problems posed by *Amaryllidaceae* Constituents using a Highly *Syn*-Selective Arylcuprate Conjugates Addition to *γ*-Amino and *γ*-Carbamato-α, β-Enoates. *Tetrahedron Asymmetry*, 2006, *17*, 3170-3178.

9. Artem S. Kireev, Oleg N. Nadein, Vincent J. Augustin, Nancy E. Bush, Antonio Evidente, Madhuri Manpadi, Marcia A. Ogasawara, **Shiva K. Rastogi**, Snezna Rogelj, Scott T. Shors, Alexander Kornienko. Synthesis and Biological Evaluation of Aromatic Analogues of Conduritol F, L-Chiro-Inositol and Dihydroconduritol F Structurally Related to the Amaryllidaceae Anticancer Constituents. *Journal of Organic Chemistry*, 2006, *71*(22), 5694-5707.

8. **Shiva K. Rastogi**, Gauruv K. Srivastava, Sanjay. K. Singh, Rajesh Grover, Raja Roy and Bijoy Kundu. Solid Phase Synthesis of 3,5 Disubstituted Oxazolidin-2-Ones. *Tetrahedron Letters,* 2002, *43*(46), 8327-8330.

7. B. Kundu, **S. K. Rastogi**, R. Ahmad and A.K. Srivastava. Identification of Novel α-Glucosidase Inhibitors by Screening Libraries based on N-[4-(Benzyloxy) Benzoyl] Alanine Derivative. *Combinatorial Chemistry and High Throughput Screening*, 2002, *5*(7), 545-550.

6. S. Batra, T. Srinivasan, **S. K. Rastogi**, B. Kundu, A. Patra, A. P. Bhaduri and M. Dikshit. Combinatorial Synthesis and Biological Evaluation of Isoxazole-Based Libraries as Antithrombotic agents. *Bioorganic Medicinal Chemistry Letters,* 2002, *12*(15), 1905 -1908.

5. A. P. Kesarwani, G. K. Srivastava, **S. K. Rastogi** and B. Kundu. Solid Phase Synthesis of Quinazoline-4-(3H)-Ones with Three-Point Diversity. *Tetrahedron Letters*, 2002, *43*(32), 5579-5581.

4. R.P. Tripathi, **S. K. Rastogi**, B. Kundu, J. K. Saxena, V.J.M. Reddt, S. Srivastava, S. Chandra and A.P. Bhaduri. Identification of Inhibitors of DNA Topoisomerase II from a Synthetic Library of Glycoconjugates. *Combinatorial Chemistry and High Throughput Screening*, 2001, *4*(3), 237-244.

3. **S. K. Rastogi**, P. Gupta, T. Srinivasan and B. Kundu. Combinatorial Synthesis of Unsymmetrical Secondary Amines Application to Arylethanolamines, Arylpropanolamines and Aryloxypropanolamines. *Molecular Diversity,* 2000, *5*(2), 91-104.

2. S. Batra, **S. K. Rastogi**, B. Kundu, A. Patra, A. P. Bhaduri. A novel Isoxazole based Scaffold for Combinatorial Chemistry. *Tetrahedron Letters*, 2000, *41*(31), 5971-5974.

1. B. Kundu, **S. K. Rastogi**, S. Batra, S.K. Raghuwanshi and P.K. Shukla. Combinatorial Approach to Lead Optimization of a Novel Hexapeptide with Antifungal Activity. *Bioorganic Medicinal Chemistry Letters,* 2000, *10(16)*, 1779-1781.

Patents:

1. Wusi Chen Maki, Brian John Filanoski, Nirankar Mishra, **Shiva Rastogi**, Methods of DNA Methylation Detection, University of Idaho, Moscow, ID – 83844, USA, US 7794939 B2 published on 14-Sep-2010

b. Non-refereed Articles:

1. **Shiva K. Rastogi***, Jamie M. F. Jabal, Huijin Zhang, Charlene M. Gibson, Kevin J. Haler, You Qiang, D. Eric Aston and A. Larry Branen. Antibody@silica coated Iron Oxide nanoparticles: synthesis, capture of *E. coli* and SERS titration of biomolecules with antibacterial silver colloid. *Journal of Nanomedicine & Nanotechnology,* 2011, *2*(7), 2-7.

3. Conference Proceedings

b. Non-refereed:

11. Shiva K. Rastogi*, Jamie M. F. Jabal, Huijin Zhang, Charlene M. Gibson, Kevin J. Haler, You Qiang, D. Eric Aston and A. Larry Branen. Silica Coated Magnetic Nanoparticles (SMNPs): Capture and Identification of Escherichia coli using Surface Enhanced Raman Spectroscopy. NSTI-Nanotech **2011**, www.nsti.org, ISBN 978-1-4398-17138-6; vol. 3; 68-71.

10. Shiva K. Rastogi*, Ben D. Denn, Charlene M. Gibson and A. Larry Branen. One Pot vs. Two Step Synthesis of Fluorescent Gold Quantum Dots and Capping with Thiolated Organic Linker. NSTI-Nanotech **2011**, www.nsti.org, ISBN 978-1-4398-1742-3; vol. 1; 311-314.

9. Shiva K. Rastogi*, Josh R. Branen, Seth Gibbon, and A. Larry Branen**.** Fluorescent Silica Nano-Particles and Magnetic beads Immunoassay: An Optical Tool for Detection of Staphylococcal enterotoxin B (SEB) in Milk. *NanoTech Conference & Expo* **2009**; ISBN 978-1-4398-1782-7; vol. 1; 558-561

8. Shiva K. Rastogi*, ‡Parul Pal, †Nirankar N. Mishra, †Brian Filanoski, †Eric Cameron, ‡Thomas E. Bitterwolf, A. Larry Branen, and †Wusi C. Maki. Water Soluble Peroxyoxamide Reagent: Evaluation for Fluorescent Silica Nano-Particles Chemiluminescence. *NanoTech Conference & Expo,* **2009**; ISBN 978-1-4398-1782-7; vol. 1; 562-565

7. Shiva K. Rastogi, Nirankar N. Mishra, Brian Filanoski, Eric Cameron, and Wusi C. Maki**.** Fluorescence Based PNA-DNA Binding Characterization on Nano-Field Effect Transistor (FET) DNA Device Surface, *NanoTech Conference & Expo,* **2009**; ISBN 978-1-4398-1783-4; vol. 1; 251-254

6. Shiva K. Rastogi*, Seth Gibbon, Josh R. Branen, and A. Larry Branen. Amperometric Detection of Staphylococcal Enterotoxin B in milk using Magnetic Bead-Based Immunoassay on Disposable Screen Printed Carbon Electrode Strip. *NanoTech Conference & Expo,* **2009**; ISBN 978-1-4398-1782-7; vol. 1; 480-483.

5. W.C. Maki, N. N. Mishra, B. Filanoski, S. K. Rastogi. Functional Mesoporous Silica Nano-Particle for Optical Bio-Detection, *NanoTech Conference & Expo*, 2008; ISBN 978-1-4200-8504-4, vol. 2. 248-251.

4. N. N. Mishra, P. Winterrowd, R. Nelson, W. Maki, S. K. Rastogi, E. Cameron, B. Filanosk, and G. Maki. Polysilicon Nano-wires Based Nanodevice on Silicon Chip Fabrication and Its Application. *Nano Tech Conference & Expo*, 2008, ISBN 978-1-4200-8504-4 vol. 2, 607-610.

3. S. K. Rastogi, N. N. Mishra, P. Winterrowd, R. Nelson, B. Filanoski, W. Maki and G. Maki. Peptide Nucleic Acids Modified Nano-Biosensor for Early Cancer Diagnosis. *NanoTech Conference & Expo*, **2007**, ISBN 1420061836 vol. 2, 443-446.

2. B. Filanoski, S. K. Rastogi, E. Cameron, N. N. Mishra, W. Maki. Homogenous Bioluminescence Resonant Energy Transfer for High Density Array on Imaging Chip. *NanoTech Conference & Expo,* **2007**, ISBN 1420061836 vol. 2, 453-456.

1. N. N. Mishra, P. Winterrowd, R. Nelson, S. K. Rastogi, W. Maki and G. Maki. Fabrication and Characterization of Nano-Field Effect Transistor for Bio-safety. *NanoTech Conference & Expo*, **2007**, ISBN 1420061836 vol. 2, 465-468.

5. Reports:

2. William J. Brittain, **Shiva K. Rastogi**, Robert A. Rogers, Peter Rinaldi. Physical Rotation Barrier in Z-azobenzene: A Physical Organic Problem in Honor of J.D.R. *J. Phys. Org. Chem.* **2018**, *31*, e3847

1. D Eric Aston, David N McIlroy, Larry Branen, Shiva Rastogi, Joshua Branen, Giancarlo Corti, Patrick J Hrdlicka, Kenneth Noren and James J Nagler, Nanomaterials for Biosensor Platforms Toward Increasing Safety and Shelf Life of Agricultural Commodities (http://www.worldfoodscience.org/cms/?pid=1005559)

6. Book Reviews:

1. S. Batra, T. Srinivasan**, S. K. Rastogi** and B. Kundu. Identification of enzyme inhibitors using combinatorial libraries. *Current Medicinal Chemistry*, **2002**, *9*, 307- 319.

1. Papers Presented at Professional Meetings:

Speech

8. Dr. Rastogi have given an oral presentation On Photopharmacology on Photoresponsive Azo-combretastatin A-4 Analogues as Novel Cytotoxic Agents, in 74th Annual ACS Southwest Regional Meeting, Nov 7 - 10, 2018 in Little Rock, AR - USA 72201

7. Shiva K. Rastogi has given invited speech on "C-H Functionalization of Arylphthalazine" in "South-West Regional Meeting-ACS-2013 at WACO-TX, USA on Nov 17, 2013.

6. Shiva K. Rastogi has given speech on "C-H Functionalization of Arylphthalazine" in "South-West Regional Meeting-ACS-2013 at WACO-TX on Nov 17, 2013.

5. Shiva K. Rastogi, CharLene M. Gibson, Josh R. Branen, D. Eric Aston, A. Larry Branen and Patrick J. Hrdlicka. DNA detection on Lateral Flow Test Strips: Enhanced Signal Sensitivity using LNA-conjugated Gold Nanoparticles. Poster Presented in Drug and Diagnostic Development conference at Westin San Francisco Market Street, San Francisco, CA, USA, Aug 6-8, 2012.

4. Shiva K Rastogi, Silica and Silica Coated Magnetic Nanoparticles Modified with 1,8-Naphthalimide-trimethoxypropylsilane: A PET Fluorescence Sensor for Zn^{2+}. American Chemical Society 237 National Meeting, March 22 – 26, 2009, Salt Lake City,UT, USA. Paper # 1251542**.**

3. Shiva K rastogi, Nirankar N. Mishra, Wusi Maki, Brian Filanoski, E. Cameron, Paul Winterrowd, Gary Maki. Peptide Nucleic Acid as A Sensing Probe on Nanowire-Field Effect Transistor (nano-FET) Based Biosensor, American Chemical Society 234 National Meeting, Aug 19 – 23, 2007, Boston, MA, USA.

2. Shiva K. Rastogi, Nirankar N. Mishra, Paul Winterrowd, Ron Nelson, Brian Filanoski, Eric Cameron, Wusi Maki and Gary Maki, Neutrally Charged Sensing Probe in Polyimide Coated Nano-Transistors**,** 13 NASA VLSI Design Symposium, June 4 – 5, 2007, Post Falls-83854, ID, USA

1. Shiva K. Rastogi Oleg N. Nadein and Alexander Kornienko. An Approach to the total synthesis of pancratistatin, 7-deoxypancratistatin and their Aromatic Analogues. American Chemical Society 230 Fall National Meeting, Aug 28, – Sep 01, 2005 Washington D.C. USA**.**

Posters: 28 posters were presented or contributed by Shiva K Rastogi in local and national conferences.

2. Invited Talks, Lectures, and Presentations:

3. Jan 07, 2020: Dr. Rastogi has received an email invitation to give an oral talk in an international conference, from Prof. and Department Chair Devdutt Chaturvedi (devduttchaturvedi@mgcub.ac.in) for **International Conference on Frontier Areas of Chemistry (ICFAC) in** Mahatma Gandhi Central University, Motihari – 845401, Bihar, India

2. Shiva K Rastogi has presented research progress report at USDA NC 1194 Annual Meeting at Kellogg Hotel and Conference Center, Michigan State University, 219 S. Harrisson Rd., East Lancing, MI 48824, USA on July 5-6, 2012

1. Shiva K. Rastogi has given invited speech on research summary through electronic conference to "John-Stephen Taylor and his group, Professor of Chemistry, Department of Chemistry, Washington University, Campus Box 1134, Campus Box 1134, St. Louis, MO 63130, St. Louis, MO 63130, USA., on May 10, 2012.

a. Works "in progress"

Rastogi S. K. et al.; *Ortho*-di-Fluoro analogues of Azo-Combretastatin A-4: Longer *cis*-life for Improved Anti-cancer potency (*manuscript in preparation*)

C. Grants and Contracts

1. Funded External Grants and Contracts:

Oct 13, 2023: Dr. Rastogi has been awarded with a mini-grant of $500 (USD) from Service-Learning and Excellence Department, Texas State University, San Marcos, TX - 78666, on conducting a research project on organic chemistry.

2011: First phase of SBIR-USDA grant ($99,712.44). University of Idaho and Biotracking LLC. Moscow, ID, USA. Shiva Rastogi serves as a Co-PD.

2010 – 2011: Partners in science program ($15,000) from M. J. Murdock charitable trust, Vancouver, WA, USA. Shiva Rastogi serves as a PI.

D. Fellowships, Awards, Honors:

May 18, 2019: Dr. Rastogi got received "Part-Time Faculty Excellence in Teaching Award" from Department of Chemistry and Biochemistry, College of Science and Engineering, Texas State University, 601 University Drive, San Marcos, TX - 78666, USA

2002 – 2003: Extended Senior Research Fellowship (INR 120,000/year) Council of Scientific and Industrial Research (CSIR), New Delhi, India

1999 – 2002: Post graduate research traineeship Central drug research institute, Lucknow, UP, India