

Selected Top 20 Journal Publications [First author(s) underlined]:

1. Dixit, C.K., Vashist, S.K., MacCraith, B.D., O'Kennedy, R. Multisubstrate-compatible ELISA procedures for rapid and high-sensitivity immunoassays. **NATURE PROTOCOLS**, 6(4), 439-445, **2011**.
2. Dixit, C.K., Vashist, S.K., O'Neill, F.T., O'Reilly, B., MacCraith, B.D., O'Kennedy, R. Development of a high sensitivity rapid sandwich ELISA procedure and its comparison with the conventional approach. **ANALYTICAL CHEMISTRY**, 82(16), 7049-52, **2010**.
3. Vashist, S.K. A sub-picogram sensitive rapid chemiluminescent immunoassay for the detection of human fetuin A. **BIOSENSORS & BIOELECTRONICS**, **2012**, <http://dx.doi.org/10.1016/j.bios.2012.07.067>.
4. Zheng, D., Vashist, S.K., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. Rapid and simple preparation of a reagentless glucose electrochemical biosensor. **ANALYST**, 137(16), 3800-3805, **2012**.
5. Zheng, D., Vashist, S.K., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. **Amperometric glucose biosensing using 3-aminopropyltriethoxysilane functionalized graphene. TALANTA, 2012**, doi: <http://dx.doi.org/10.1016/j.talanta.2012.05.014>
6. Vashist, S.K., Technology behind commercial devices for blood glucose monitoring in diabetes management: A review. **ANALYTICA CHIMICA ACTA**, 703(2), 124-136, **2011**.
7. Dixit, C.K., Vashist, S.K., MacCraith, B.D., O'Kennedy, R. Evaluation of apparent non-specific protein loss due to adsorption on sampling tube surfaces and/or compromised immunogenicity. **ANALYST**, 136(7), 1406-11, **2011**.
8. Vashist, S.K., Zheng, D., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. Sulfo-N-hydroxysuccinimide interferes with bicinchoninic acid protein assay. **ANALYTICAL BIOCHEMISTRY**, 417(1), 156-8, **2011**.
9. Vashist, S.K., Dixit, C.K., MacCraith, B.D., O'Kennedy, R. Effect of antibody immobilization strategies on the analytical performance of a surface plasmon resonance-based immunoassay. **ANALYST**, 136(21), 4431-36, **2011**.
10. Vashist, S.K., Zheng, D., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. Advances in carbon nanotube based electrochemical sensors for bioanalytical applications. **BIOTECHNOLOGY ADVANCES**, 29(2), 169-188, **2011**.
11. Vashist, S.K. Effect of antibody modifications on its biomolecular binding as determined by Surface Plasmon Resonance. **ANALYTICAL BIOCHEMISTRY**, 421, 336-338, **2012**.
12. Vashist, S.K. A method for regenerating gold surface for prolonged reuse of gold-coated Surface Plasmon Resonance chip. **ANALYTICAL BIOCHEMISTRY**, 423, 23-25, **2012**.
13. Vashist, S.K., Dixit, C.K. Interference of N-hydroxysuccinimide with bicinchoninic acid protein assay. **BIOCHEM. BIOPHYS. RES. COMMUN.**, 411(2), 455-7, **2011**.
14. Vashist, S.K., Zheng, D., Pastorin, G., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. Delivery of drugs and biomolecules using carbon nanotubes. **CARBON**, 49(13), 4077-97, **2011**.
15. Cui, H.-F., Vashist, S.K., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. Interfacing carbon nanotubes with living mammalian cells and cytotoxicity issues. **CHEMICAL RESEARCH TOXICOLOGY**, 23(7), 1131-1147, **2010**.
16. Li, J., Yap, S.Q., Nayak, T.R., Chandra, G.W., Ang, W.H., Panczyk, T., Ramaprabhu, S., Vashist, S.K., Sheu, F.-S., Tan, A., Pastorin, G. Carbon

nanotube bottles for incorporation release and enhanced cytotoxic effect of Cisplatin. **CARBON**, 50, 1625-1634, **2012**.

17. Vashist, S.K. Non-invasive glucose monitoring technology in diabetes management: A Review. **ANALYTICA CHIMICA ACTA**, **2012**; DOI: 10.1016/j.aca.2012.03.043.
18. Vashist, S.K., Venkatesh, A.G., Mitsakakis, K., Czilwik, G., Roth, G., von Stetten, F., Zengerle, R. Nanotechnology in diagnostics and biosensors: Technology Push Vs. Industrial/Healthcare Requirements. **BIONANOSCEINCE**, **2012**, 2(3), 115-126, 2012
19. Vashist, S.K., Saraswat, M., Holthofer, H. Comparative study of the developed chemiluminescence, ELISA and SPR immunoassay formats for the highly sensitive detection of human albumin. **PROCEDIA CHEMISTRY**, **2012**. (in Press)
20. Vashist, S.K. Comparison of various 1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide based strategies for crosslinking antibodies to 3-aminopropyltriethoxysilane-functionalized bioanalytical platforms. **DIAGNOSTICS**, 2, 23-33, **2012**.

(Rest – Available on request)

Book Chapters:

1. Vashist, S.K., Korotcenkov, G. “*Microcantilever-based Chemical Sensors*”. Book Chapter in **CHEMICAL SENSORS: TECHNOLOGIES. VOLUME 4: SOLID-STATE DEVICES** published by Momentum Press, USA. **2011**.

Selected Top 20 Conference Publications:

1. Vashist, S.K., Technologies for developing next-generation of diagnostics. **Photonic Global Conf. (PGC) 2012** [Singapore; Dec. 13-16, **2012**]. [Invited Talk]
2. Vashist, S.K. Graphene nano platelets-based rapid Enzyme-linked immunoassay for the highly sensitive detection of human lipocalin-2. **3rd Int. Conf. on Bio-sensing Technology 2013** [Sitges, Spain; May 13-15, **2013**].
3. Stevens, G.B., Silver, D., van Oordt, T., Vashist, S.K., Urban, G.A., Krueger, M. Optimizing the developed luciferase release assay for the automated detection of botulinum neurotoxin type A. **48th Annual Interagency Botulism Research Coordinating Committee (IBRCC) Meeting** [Santa Fe, New Mexico, Oct. 5-7, **2012**].
4. Vashist, S.K. A label-free and real-time surface plasmon resonance-based immunoassay for the highly sensitive detection of human fetuin A in 15 minutes. **Label-free Technologies** [Amsterdam, The Netherlands, Nov. 1-3, **2012**].
5. Vashist, S.K. Effect of 3-aminopropyltriethoxysilane-based antibody immobilization chemistries on the performance of surface plasmon resonance-based human fetuin A immunoassay. **Label-free Technologies** [Amsterdam, The Netherlands, Nov. 1-3, **2012**].
6. Vashist, S.K. A sub-picogram sensitive rapid chemiluminescent immunoassay for the detection of human fetuin A. **Biosensors 2012** [Cancun, Mexico; May 15-18, **2012**].
7. Zheng, D., Vashist, S.K., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. Mediatorless amperometric glucose biosensor based on the covalent binding of glucose oxidase to poly-L-lysine-functionalized glassy carbon electrode. **Biosensors 2012** [Cancun, Mexico; May 15-18, **2012**].

8. Zheng, D., Vashist, S.K., Al-Rubeaan, K., Luong, J.H.T., Sheu, F.-S. Development of electrochemical glucose biosensor based on glucose oxidase bound covalently to 3-aminopropyltriethoxysilane-functionalized glassy carbon electrode. **Biosensors 2012** [Cancun, Mexico; May 15-18, **2012**].
9. Vashist, S.K., Saraswat, M., Holthofer, H. Comparative study of the developed chemiluminescence, ELISA and SPR immunoassay formats for the highly sensitive detection of human albumin. **2nd Int. Conf. on Bio-Sensing Tech. 2011** [Amsterdam, Netherlands; Oct 10-12, **2011**].
10. Vashist, S.K., Saraswat, M., Holthofer, H. Development of a rapid sandwich Enzyme Linked Immunoassay procedure for the highly sensitive detection of human Lipocalin-2/NGAL. **2nd Int. Conf. on Bio-Sensing Tech. 2011** [Amsterdam, Netherlands; Oct 10-12, **2011**].
11. Dixit, C.K., Vashist, S.K., MacCraith, B.D., O'Kennedy, R. Novel SPR-based strategy for detection of human fetuin A/AHSG. **EUROP(T)RODE X** [Prague, Czech Republic; Mar. 28-31, **2010**]. [Invited Talk]
12. Vashist, S.K. Development of highly-sensitive rapid immunoassays & diagnostics for diabetic biomarkers. **The 1st Diabetes NanoCore Int. Symposium** [Saudi Arabia; Sept. 28-29, **2010**]. [Invited Talk]
13. Vashist, S.K. Recent Advances in Biosensors and Diagnostics for Point-of-care, Medical and Industrial Applications. **Int. Conf. on Sensors and Related Networks (SENNET 09)** [Vellore, India; Dec. 10, **2009**]. [Inv Talk]
14. Vashist, S.K. Trends in Bioanalytical Sciences and Biosensors for Immunodiagnosics & Point-of-care Devices. **Int. Conf. on Microbial Biotech. (MICROCON 09)** [Chandigarh, India; Mar. 03, **2009**]. [Invited Talk]
15. Vashist, S.K. Novel Approaches for Advanced Bioanalytical Platforms in Biosensing and Immunodiagnostic applications. **Int. Conf. on Trends in Bioanalytical Sciences and Biosensors (ICTBSB-2009)** [Dublin, Ireland; Jan. 27, **2009**]. [Invited Talk]
16. Dixit, C.K., Vashist, S.K., MacCraith, B.D., O'Kennedy, R. Development of novel strategies for antibody immobilization on agarose beads. **NCSR 10th Anniversary Symposium** [Dublin City Univ., Ireland; Oct 22, **2009**].
17. Saraswat, M., Vashist, S.K., Holthofer, H. Development of rapid immunoassay strategy for bioanalytical applications. **NCSR 10th Anniversary Symposium** [Dublin City Univ., Ireland; Oct 22, **2009**].
18. Vashist, S.K. Development of advanced optical platforms, new bioanalytical tools and procedures for highly sensitive and rapid immunoassays. **Bristol-Myers Squibb 33rd Interdivisional Analytical Research Conf.** [Syracuse NY, USA; Jun. 18-19, **2008**].
19. Byrne, B., Donohoe, G., O'Neill, F.T., Vashist, S.K., O'Sullivan, S.A., O'Kennedy, R., MacCraith, B.D. Antibody-based assay formats for the rapid detection of glycoconjugates. **Glycoscience Ireland** [Trinity College, Dublin, Ireland; Apr. 08, **2008**].
20. O'Neill, F.T., O'Sullivan, S.A., Vashist, S.K., MacCraith, B.D. Optimisation of optical immuno-sensors. **Europtrode IX** [Biomedical Diagnostics Institute, Dublin City University, Ireland; Mar. 30-Apr. 02, **2008**].

(Rest – Available on request)