

References

- ❖ AbdelRahim, K., Mahmoud, S.Y., Ali, A.M., Almaary, K.S., Mustafa, A.E.-Z.M. and Husseiny, S.M. (2017) Extracellular biosynthesis of silver nanoparticles using *Rhizopus stolonifer*. Saudi Journal of Biological Sciences 24(1), 208-216.
- ❖ Abdel-Raouf, N., Al-Enazi, N.M. and Ibraheem, I.B. (2017) Green biosynthesis of gold nanoparticles using *Galaxaura elongata* and characterization of their antibacterial activity.
- ❖ Abdulla, H.S. and Abbo, A.I. (2012) Optical and electrical properties of thin films of polyaniline and polypyrrole. Int J Electrochem Sci 7, 10666-10678.
- ❖ Aboelfetoh, E.F., El-Shenody, R.A. and Ghobara, M.M. (2017) Eco-friendly synthesis of silver nanoparticles using green algae (*Caulerpa serrulata*): reaction optimization, catalytic and antibacterial activities. Environmental Monitoring and Assessment 189(7), 349.
- ❖ Adavallan, K. and Krishnakumar, N. (2014) Mulberry leaf extract mediated synthesis of gold nanoparticles and its anti-bacterial activity against human pathogens. Advances in Natural Sciences: Nanoscience and Nanotechnology 5(2), 025018.
- ❖ Agnihotri, M., Joshi, S., Kumar, A.R., Zinjarde, S. and Kulkarni, S. (2009) Biosynthesis of gold nanoparticles by the tropical marine yeast *Yarrowia lipolytica* NCIM 3589. Materials Letters 63(15), 1231-1234.
- ❖ Ahmad, A., Mukherjee, P., Senapati, S., Mandal, D., Khan, M.I., Kumar, R. and Sastry, M. (2003b) Extracellular biosynthesis of silver nanoparticles using the fungus *Fusarium oxysporum*. Colloids and Surfaces B: Biointerfaces 28(4), 313-318.
- ❖ Ahmad, A., Senapati, S., Khan, M.I., Kumar, R. and Sastry, M. (2003a) Extracellular biosynthesis of monodisperse gold nanoparticles by a novel extremophilic actinomycete, *Thermomonospora sp.* Langmuir 19(8), 3550-3553.
- ❖ Ahmad, A., Senapati, S., Khan, M.I., Kumar, R. and Sastry, M. (2005) Extra-/intracellular biosynthesis of gold nanoparticles by an alkalotolerant fungus, *Trichothecium sp.* Journal of Biomedical Nanotechnology 1(1), 47-53.
- ❖ Ahmad, A., Senapati, S., Khan, M.I., Kumar, R., Ramani, R., Srinivas, V. and Sastry, M. (2003c) Intracellular synthesis of gold nanoparticles by a novel alkalotolerant actinomycete, *Rhodococcus species*. Nanotechnology 14(7), 824.
- ❖ Ahmad, N., Sharma, S., Alam, M.K., Singh, V., Shamsi, S., Mehta, B. and Fatma, A. (2010b) Rapid synthesis of silver nanoparticles using dried medicinal plant of basil. Colloids and Surfaces B: Biointerfaces 81(1), 81-86.
- ❖ Ahmad, N., Sharma, S., Singh, V., Shamsi, S., Fatma, A. and Mehta, B. (2010a) Biosynthesis of silver nanoparticles from *Desmodium triflorum*: a novel approach towards weed utilization. Biotechnology Research International 2011.
- ❖ Ahmed, Q., Gupta, N., Kumar, A. and Nimesh, S. (2016b) Antibacterial efficacy of silver nanoparticles synthesized employing *Terminalia arjuna* bark extract. Artificial cells, nanomedicine, and biotechnology, 1-9.
- ❖ Ahmed, S., Ahmad, M., Swami, B.L. and Ikram, S. (2016a) Green synthesis of silver nanoparticles using *Azadirachta indica* aqueous leaf extract. Journal of Radiation Research and Applied Sciences 9(1), 1-7.
- ❖ Ainsworth, E.A. and Gillespie, K.M. (2007) Estimation of total phenolic content and other oxidation substrates in plant tissues using Folin-Ciocalteu reagent. Nature protocols 2(4), 875.
- ❖ Aitenneite, H., Abboud, Y., Tanane, O., Solhy, A., Sebti, S. and Bouari, A.E. (2016) Rapid and green microwave-assisted synthesis of silver nanoparticles using aqueous *Phoenix Dactylifera* L.(date palm) leaf extract and their catalytic activity for 4-Nitrophenol reduction. Journal of Material and Environmental Sciences 7(7), 2335-2339.
- ❖ Ajitha, B., Reddy, Y.A.K., Rajesh, K. and Reddy, P.S. (2016) *Sesbania grandiflora* leaf extract assisted green synthesis of silver nanoparticles: Antimicrobial activity. Materials Today: Proceedings 3(6), 1977-1984.
- ❖ Akhtar, N., El-Safty, S.A. and Khairy, M. (2014) Simple and sensitive electrochemical sensor-based three-dimensional porous Ni-hemoglobin composite electrode. Chemosensors 2(4), 235-250.
- ❖ Alani, F., Moo-Young, M. and Anderson, W. (2012) Biosynthesis of silver nanoparticles by a new strain of *Streptomyces* sp. compared with *Aspergillus fumigatus*. World Journal of Microbiology and Biotechnology 28(3), 1081-1086.
- ❖ Al-Bahrani, R., Raman, J., Lakshmanan, H., Hassan, A.A. and Sabaratnam, V. (2017) Green synthesis of silver nanoparticles using tree oyster mushroom *Pleurotus ostreatus* and its inhibitory activity against pathogenic bacteria. Materials Letters 186, 21-25.
- ❖ Ali, K., Ahmed, B., Dwivedi, S., Saquib, Q., Al-Khedhairy, A.A. and Musarrat, J. (2015) Microwave accelerated green synthesis of stable silver nanoparticles with *Eucalyptus globulus* leaf extract and their antibacterial and antibiofilm activity on clinical isolates. PLoS One 10(7), e0131178.
- ❖ Ali, M., Kim, B., Belfield, K.D., Norman, D., Brennan, M. and Ali, G.S. (2016a) Green synthesis and characterization of silver nanoparticles using *Artemisia absinthium* aqueous extract—A comprehensive study. Materials Science and Engineering: C 58, 359-365.
- ❖ Ali, Z.A., Yahya, R., Sekaran, S.D. and Puteh, R. (2016b) Green synthesis of silver nanoparticles using apple extract and its antibacterial properties. Advances in Materials Science and Engineering 2016.
- ❖ Al-Shmgani, H.S., Mohammed, W.H., Sulaiman, G.M. and Saadoon, A.H. (2016) Biosynthesis of silver nanoparticles from *Catharanthus roseus* leaf extract and assessing their antioxidant, antimicrobial, and wound-healing activities. Artificial cells, nanomedicine, and biotechnology, 1-7.

- ❖ Altamura, S. and Muckenthaler, M.U. (2009) Iron toxicity in diseases of aging: Alzheimer's disease, Parkinson's disease and atherosclerosis. *Journal of Alzheimer's Disease* 16(4), 879-895.
- ❖ Amaladhas, T.P., Usha, M. and Naveen, S. (2013) Sunlight induced rapid synthesis and kinetics of silver nanoparticles using leaf extract of *Achyranthes aspera* L. and their antimicrobial applications. *Mat. Lett* 4(10), 779-785.
- ❖ Ambrosi, A., Chua, C.K., Bonanni, A. and Pumera, M. (2014) Electrochemistry of graphene and related materials. *Chemical reviews* 114(14), 7150-7188.
- ❖ Anand, K., Gengan, R., Phulukdaree, A. and Chuturgoon, A. (2015) Agroforestry waste *Moringa oleifera* petals mediated green synthesis of gold nanoparticles and their anti-cancer and catalytic activity. *Journal of Industrial and Engineering Chemistry* 21, 1105-1111.
- ❖ Anand, K., Gengan, R., Phulukdaree, A. and Chuturgoon, A. (2015) Agroforestry waste *Moringa oleifera* petals mediated green synthesis of gold nanoparticles and their anti-cancer and catalytic activity. *Journal of Industrial and Engineering Chemistry* 21, 1105-1111.
- ❖ Anandalakshmi, K., Venugopal, J. and Ramasamy, V. (2016) Characterization of silver nanoparticles by green synthesis method using *Pedalium murex* leaf extract and their antibacterial activity. *Applied Nanoscience* 6(3), 399-408.
- ❖ André, R., Natálio, F., Humanes, M., Leppin, J., Heinze, K., Wever, R., Schröder, H.C., Müller, W.E. and Tremel, W. (2011) V2O5 nanowires with an intrinsic peroxidase-like activity. *Advanced Functional Materials* 21(3), 501-509.
- ❖ Ankamwar, B. (2010) Biosynthesis of gold nanoparticles (green-gold) using leaf extract of *Terminalia catappa*. *Journal of Chemistry* 7(4), 1334-1339.
- ❖ Ankamwar, B., Chaudhary, M. and Sastry, M. (2005a) Gold nanotriangles biologically synthesized using tamarind leaf extract and potential application in vapor sensing. *Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry* 35(1), 19-26.
- ❖ Ankamwar, B., Damle, C., Ahmad, A. and Sastry, M. (2005b) Biosynthesis of gold and silver nanoparticles using *Emblia officinalis* fruit extract, their phase transfer and transmetallation in an organic solution. *Journal of Nanoscience and Nanotechnology* 5(10), 1665-1671.
- ❖ Ankamwar, B., Salgaonkar, M. and Sur, U.K. (2017) Room Temperature Green Synthesis of Anisotropic Gold Nanoparticles Using Novel Biological Fruit Extract. *Inorganic and Nano-Metal Chemistry* (just-accepted), 00-00.
- ❖ Annadhasan, M. and Rajendiran, N. (2015) Highly selective and sensitive colorimetric detection of Hg (II) ions using green synthesized silver nanoparticles. *RSC Advances* 5(115), 94513-94518.
- ❖ Annadhasan, M., Muthukumarasamyvel, T., Sankar Babu, V. and Rajendiran, N. (2014) Green synthesized silver and gold nanoparticles for colorimetric detection of Hg^{2+} , Pb^{2+} , and Mn^{2+} in aqueous medium. *ACS Sustainable Chemistry & Engineering* 2(4), 887-896.
- ❖ Annamalai, J. and Nallamuthu, T. (2015) Characterization of biosynthesized gold nanoparticles from aqueous extract of *Chlorella vulgaris* and their anti-pathogenic properties. *Applied Nanoscience* 5(5), 603-607.
- ❖ Anupama, N. and Madhumitha, G. (2017) Green synthesis and catalytic application of silver nanoparticles using *Carissa carandas* fruits. *Inorganic and Nano-Metal Chemistry* 47(1), 116-120.
- ❖ Arabian Journal of Chemistry 10, S3029-S3039.
- ❖ Armendariz, V., Herrera, I., Jose-yacaman, M., Troiani, H., Santiago, P. and Gardea-Torresdey, J.L. (2004) Size controlled gold nanoparticle formation by *Avena sativa* biomass: use of plants in nanobiotechnology. *Journal of Nanoparticle Research* 6(4), 377-382.
- ❖ Arokiyaraj, S., Arasu, M.V., Vincent, S., Prakash, N.U., Choi, S.H., Oh, Y.-K., Choi, K.C. and Kim, K.H. (2014) Rapid green synthesis of silver nanoparticles from *Chrysanthemum indicum* L and its antibacterial and cytotoxic effects: an in vitro study. *International journal of nanomedicine* 9, 379.
- ❖ Arokiyaraj, S., Vincent, S., Saravanan, M., Lee, Y., Oh, Y.K. and Kim, K.H. (2017) Green synthesis of silver nanoparticles using *Rheum palmatum* root extract and their antibacterial activity against *Staphylococcus aureus* and *Pseudomonas aeruginosa*. *Artificial cells, nanomedicine, and biotechnology* 45(2), 372-379.
- ❖ Aromal, S.A. and Philip, D. (2012) Green synthesis of gold nanoparticles using *Trigonella foenum-graecum* and its size-dependent catalytic activity. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 97, 1-5.
- ❖ Aromal, S.A., Vidhu, V. and Philip, D. (2012) Green synthesis of well-dispersed gold nanoparticles using *Macrotyloma uniflorum*. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 85(1), 99-104.
- ❖ Arulkumar, S. and Sabesan, M. (2011) Biosynthesis and characterization of gold nanoparticle using antiparkinsonian drug *Mucuna pruriens* plant extract. *International Journal* 1(4).
- ❖ Arun, G., Eyini, M. and Gunasekaran, P. (2014) Green synthesis of silver nanoparticles using the mushroom fungus *Schizophyllum commune* and its biomedical applications. *Biotechnology and Bioprocess Engineering: BBE* 19(6), 1083.
- ❖ Arunachalam, K.D., Annamalai, S.K. and Hari, S. (2013) One-step green synthesis and characterization of leaf extract-mediated biocompatible silver and gold nanoparticles from *Memecylon umbellatum*. *International journal of nanomedicine* 8, 1307.

- ❖ Arunkumar, C., Nima, P., Astalakshmi, A. and Ganesan, V. (2013) Green synthesis and characterization of silver nanoparticles using leaves of *Tecoma stans* (L.) Kunth. Int. J. Nanotechnol. Appl 3, 1-10.
- ❖ Ashour, A.A., Raafat, D., El-Gowelli, H.M. and El-Kamel, A.H. (2015) Green synthesis of silver nanoparticles using cranberry powder aqueous extract: characterization and antimicrobial properties. International journal of nanomedicine 10, 7207.
- ❖ Atar, N., Eren, T., Demirdögen, B., Yola, M.L. and Çağlayan, M.O. (2015b) Silver, gold, and silver@ gold nanoparticle-anchored l-cysteine-functionalized reduced graphene oxide as electrocatalyst for methanol oxidation. Ionics 21(8), 2285-2293.
- ❖ Atar, N., Eren, T., Yola, M.L., Gerengi, H. and Wang, S. (2015a) Fe@ Ag nanoparticles decorated reduced graphene oxide as ultrahigh capacity anode material for lithium-ion battery. Ionics 21(12), 3185-3192.
- ❖ Awad, M.A., Hendi, A.A., Ortashi, K.M., Elradi, D.F., Eisa, N.E., Al-lahieb, L.A., Al-Otiby, S.M., Merghani, N.M. and Awad, A.A. (2014) Silver nanoparticles biogenic synthesized using an orange peel extract and their use as an anti-bacterial agent. International Journal of Physical Sciences 9(3), 34-40.
- ❖ Baharara, J., Namvar, F., Ramezani, T., Hosseini, N. and Mohamad, R. (2014) Green synthesis of silver nanoparticles using *Achillea biebersteinii* flower extract and its anti-angiogenic properties in the rat aortic ring model. Molecules 19(4), 4624-4634.
- ❖ Bahrami-Teimoori, B., Nikparast, Y., Hojatianfar, M., Akhlaghi, M., Ghorbani, R. and Pourianfar, H.R. (2017) Characterisation and antifungal activity of silver nanoparticles biologically synthesised by *Amaranthus retroflexus* leaf extract. Journal of Experimental Nanoscience 12(1), 129-139.
- ❖ Bai, R.S. and Abraham, T.E. (2002) Studies on enhancement of Cr (VI) biosorption by chemically modified biomass of *Rhizopus nigricans*. Water research 36(5), 1224-1236.
- ❖ Balalakshmi, C., Gopinath, K., Govindarajan, M., Lokesh, R., Arumugam, A., Alharbi, N.S., Kadaikunnan, S., Khaled, J.M. and Benelli, G. (2017) Green synthesis of gold nanoparticles using a cheap *Sphaeranthus indicus* extract: impact on plant cells and the aquatic crustacean Artemia nauplii. Journal of Photochemistry and Photobiology B: Biology.
- ❖ Balamurugan, M., Kaushik, S. and Saravanan, S. (2016) Green synthesis of gold nanoparticles by using *Peltophorum pterocarpum* flower extracts. Nano Biomed Eng 8(4), 213-218.
- ❖ Balavigneswaran, C., Kumar, T.S.J., Packiaraj, R.M. and Prakash, S. (2014) Rapid detection of Cr (VI) by AgNPs probe produced by *Anacardium occidentale* fresh leaf extracts. Applied Nanoscience 4(3), 367-378.
- ❖ Bankar, A., Joshi, B., Kumar, A.R. and Zinjarde, S. (2010) Banana peel extract mediated novel route for the synthesis of silver nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects 368(1), 58-63.
- ❖ Bar, H., Bhui, D.K., Sahoo, G.P., Sarkar, P., De, S.P. and Misra, A. (2009) Green synthesis of silver nanoparticles using latex of *Jatropha curcas*. Colloids and Surfaces A: Physicochemical and Engineering Aspects 339(1), 134-139.
- ❖ Barabadi, H., Honary, S., Mohammadi, M.A., Ahmadpour, E., Rahimi, M.T., Alizadeh, A., Naghibi, F. and Saravanan, M. (2017) Green chemical synthesis of gold nanoparticles by using *Penicillium aculeatum* and their scolicidal activity against hydatid cyst protoscolices of *Echinococcus granulosus*. Environmental Science and Pollution Research, 1-11.
- ❖ Baram-Pinto, D., Shukla, S., Gedanken, A. and Sarid, R. (2010) Inhibition of HSV-1 Attachment, Entry, and Cell-to-Cell Spread by Functionalized Multivalent Gold Nanoparticles. Small 6(9), 1044-1050.
- ❖ Barwal, I., Ranjan, P., Kateriya, S. and Yadav, S.C. (2011) Cellular oxido-reductive proteins of *Chlamydomonas reinhardtii* control the biosynthesis of silver nanoparticles. Journal of nanobiotechnology 9(1), 56.
- ❖ Basavaraja, S., Balaji, S., Lagashetty, A., Rajasab, A. and Venkataraman, A. (2008) Extracellular biosynthesis of silver nanoparticles using the fungus *Fusarium semitectum*. Materials Research Bulletin 43(5), 1164-1170.
- ❖ Basavegowda, N., Idhayadhulla, A. and Lee, Y.R. (2014) Phyto-synthesis of gold nanoparticles using fruit extract of *Hovenia dulcis* and their biological activities. Industrial Crops and Products 52, 745-751.
- ❖ Basiri, S., Mehdinia, A. and Jabbari, A. (2017) Biologically green synthesized silver nanoparticles as a facile and rapid label-free colorimetric probe for determination of Cu^{2+} in water samples. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 171, 297-304.
- ❖ Bastus, N.G., Merkoci, F., Piella, J. and Puntes, V. (2014) Synthesis of highly monodisperse citrate-stabilized silver nanoparticles of up to 200 nm: kinetic control and catalytic properties. Chem. Mater 26(9), 2836-2846.
- ❖ Beg, M., Maji, A., Mandal, A.K., Das, S., Aktara, M.N., Jha, P.K. and Hossain, M. (2017) Green synthesis of silver nanoparticles using *Pongamia pinnata* seed: Characterization, antibacterial property, and spectroscopic investigation of interaction with human serum albumin. Journal of Molecular Recognition 30(1).
- ❖ Begum, N., Mathew, S., Govindaraju, A. and Qadri, I. (2016) Green synthesis, Antioxidant Potential and Hypoglycemic Effect of Silver Nanoparticles using Ethanolic Leaf Extract of *Clausena anisata* (Willd.) Hook. F. Ex Benth. of Rutaceae. Pharmacognosy Journal 8(6).
- ❖ Begum, N.A., Mondal, S., Basu, S., Laskar, R.A. and Mandal, D. (2009) Biogenic synthesis of Au and Ag nanoparticles using aqueous solutions of Black Tea leaf extracts. Colloids and Surfaces B: Biointerfaces 71(1), 113-118.

- ❖ Bhainsa, K.C. and D'souza, S. (2006) Extracellular biosynthesis of silver nanoparticles using the fungus *Aspergillus fumigatus*. *Colloids and Surfaces B: Biointerfaces* 47(2), 160-164.
- ❖ Bharathi, D., Kalaichelvan, P., Atmaram, V. and Anbu, S. (2016) Biogenic synthesis of silver nanoparticles from aqueous flower extract of *Bougainvillea spectabilis* and their antibacterial activity. *Journal of Medicinal Plants* 4(5), 248-252.
- ❖ Bhat, R., Sharanaabasa, V., Deshpande, R., Shetti, U., Sanjeev, G. and Venkataraman, A. (2013) Photo-bio-synthesis of irregular shaped functionalized gold nanoparticles using edible mushroom *Pleurotus florida* and its anticancer evaluation. *Journal of Photochemistry and Photobiology B: Biology* 125, 63-69.
- ❖ Bhui, D.K., Bar, H., Sarkar, P., Sahoo, G.P., De, S.P. and Misra, A. (2009) Synthesis and UV-vis spectroscopic study of silver nanoparticles in aqueous SDS solution. *Journal of Molecular Liquids* 145(1), 33-37.
- ❖ Bhuvaneswari, R., Xavier, R.J. and Arumugam, M. (2017) Facile synthesis of multifunctional silver nanoparticles using mangrove plant *Excoecaria agallocha* L. for its antibacterial, antioxidant and cytotoxic effects. *Journal of Parasitic Diseases* 41(1), 180-187.
- ❖ Billacura, M.P. and Mimbesa, H.S. (2015) 026: leaf extract mediated green synthesis of silver nanoparticles from widely available *Wedelia trilobata*: synthesis, partial characterization and antimicrobial property analysis, British Medical Journal Publishing Group.
- ❖ Bindhu, M. and Umadevi, M. (2015) Antibacterial and catalytic activities of green synthesized silver nanoparticles. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 135, 373-378.
- ❖ Binupriya, A., Sathishkumar, M., Vijayaraghavan, K. and Yun, S.-I. (2010) Bioreduction of trivalent aurum to nano-crystalline gold particles by active and inactive cells and cell-free extract of *Aspergillus oryzae* var. *viridis*. *Journal of Hazardous Materials* 177(1), 539-545.
- ❖ Birla, S.S., Gaikwad, S.C., Gade, A.K. and Rai, M.K. (2013) Rapid synthesis of silver nanoparticles from *Fusarium oxysporum* by optimizing physicocultural conditions. *The Scientific World Journal* 2013.
- ❖ Bøjesen, E.D. and Iversen, B.B. (2016) The chemistry of nucleation. *CrystEngComm* 18(43), 8332-8353.
- ❖ Brust, M., Walker, M., Bethell, D., Schiffrian, D.J. and Whyman, R. (1994) Synthesis of thiol-derivatised gold nanoparticles in a two-phase liquid-liquid system. *Journal of the Chemical Society, Chemical Communications* (7), 801-802.
- ❖ Bulut, E. and Özcar, M. (2009) Rapid, facile synthesis of silver nanostructure using hydrolyzable tannin. *Industrial & Engineering Chemistry Research* 48(12), 5686-5690.
- ❖ Buszewski, B., Railean-Plugaru, V., Pomastowski, P., Rafińska, K., Szultka-Mlynśka, M., Golinska, P., Wypij, M., Laskowski, D. and Dahm, H. (2016) Antimicrobial activity of biosilver nanoparticles produced by a novel *Streptacidiphilus durhamensis* strain. *Journal of Microbiology, Immunology and Infection*.
- ❖ Cai, X., Gao, X., Wang, L., Wu, Q. and Lin, X. (2013) A layer-by-layer assembled and carbon nanotubes/gold nanoparticles-based bienzyme biosensor for cholesterol detection. *Sensors and Actuators B: Chemical* 181, 575-583.
- ❖ Cano, M., Núñez-Lozano, R., Lumbreras, R., González-Rodríguez, V., Delgado-García, A., Jiménez-Hoyuela, J.M. and de la Cueva-Méndez, G. (2017) Partial PEGylation of superparamagnetic iron oxide nanoparticles thinly coated with amine-silane as a source of ultrastable tunable nanosystems for biomedical applications. *Nanoscale* 9(2), 812-822.
- ❖ Cao, S., Zhang, L., Chai, Y. and Yuan, R. (2013) An integrated sensing system for detection of cholesterol based on TiO₂-graphene-Pt-Pd hybridnanocomposites. *Biosensors and Bioelectronics* 42, 532-538.
- ❖ Carrow, J.K. and Gaharwar, A.K. (2015) Bioinspired polymeric nanocomposites for regenerative medicine. *Macromolecular Chemistry and Physics* 216(3), 248-264.
- ❖ Castro-Longoria, E., Vilchis-Nestor, A.R. and Avalos-Borja, M. (2011) Biosynthesis of silver, gold and bimetallic nanoparticles using the filamentous fungus *Neurospora crassa*. *Colloids and Surfaces B: Biointerfaces* 83(1), 42-48.
- ❖ Chaloupka, K., Malam, Y. and Seifalian, A.M. (2010) Nanosilver as a new generation of nanoproduct in biomedical applications. *Trends in biotechnology* 28(11), 580-588.
- ❖ Chandran, S.P., Chaudhary, M., Pasricha, R., Ahmad, A. and Sastry, M. (2006) Synthesis of gold nanotriangles and silver nanoparticles using Aloevera plant extract. *Biotechnology Progress* 22(2), 577-583.
- ❖ Chang, T.-Y., Chen, C.-C., Cheng, K.-M., Chin, C.-Y., Chen, Y.-H., Chen, X.-A., Sun, J.-R., Young, J.-J. and Chiueh, T.-S. (2017) Trimethyl chitosan-capped silver nanoparticles with positive surface charge: Their catalytic activity and antibacterial spectrum including multidrug-resistant strains of *Acinetobacter baumannii*. *Colloids and Surfaces B: Biointerfaces* 155, 61-70.
- ❖ Charbgoo, F., Ahmad, M.B. and Darroudi, M. (2017) Cerium oxide nanoparticles: green synthesis and biological applications. *International journal of nanomedicine* 12, 1401.
- ❖ Chaudhuri, S.K., Chandela, S. and Malodia, L. (2016) Plant Mediated Green Synthesis of Silver Nanoparticles Using *Tecomella undulata* Leaf Extract and Their Characterization. *Nano Biomedicine & Engineering* 8(1).
- ❖ Chauhan, R., Kumar, A. and Abraham, J. (2013) A biological approach to the synthesis of silver nanoparticles with *Streptomyces* sp JAR1 and its antimicrobial activity. *Scientia pharmaceutica* 81(2), 607-624.

- ❖ Chen, C., Li, N., Lan, J., Ji, X. and He, Z. (2016) A label-free colorimetric platform for DNA via target-catalyzed hairpin assembly and the peroxidase-like catalytic of graphene/Au-NPs hybrids. *Analytica chimica acta* 902, 154-159.
- ❖ Chen, H., Kou, X., Yang, Z., Ni, W. and Wang, J. (2008) Shape-and size-dependent refractive index sensitivity of gold nanoparticles. *Langmuir* 24(10), 5233-5237.
- ❖ Chen, J., Lin, Z. and Ma, X. (2003) Evidence of the production of silver nanoparticles via pretreatment of *Phoma sp.* 3.2883 with silver nitrate. *Letters in applied microbiology* 37(2), 105-108.
- ❖ Chen, L., Sun, B., Wang, X., Qiao, F. and Ai, S. (2013) 2D ultrathin nanosheets of Co-Al layered double hydroxides prepared in L-asparagine solution: enhanced peroxidase-like activity and colorimetric detection of glucose. *Journal of Materials Chemistry B* 1(17), 2268-2274.
- ❖ Chen, S., Guo, Y., Chen, S., Yu, H., Ge, Z., Zhang, X., Zhang, P. and Tang, J. (2012) Facile preparation and synergistic antibacterial effect of three-component Cu/TiO₂/CS nanoparticles. *Journal of Materials Chemistry* 22(18), 9092-9099.
- ❖ Chen, X. and Mao, S.S. (2007) Titanium dioxide nanomaterials: synthesis, properties, modifications, and applications. *Chem. Rev* 107(7), 2891-2959.
- ❖ Chen, X., Tian, X., Su, B., Huang, Z., Chen, X. and Oyama, M. (2014) Au nanoparticles on citrate-functionalized graphene nanosheets with a high peroxidase-like performance. *Dalton Transactions* 43(20), 7449-7454.
- ❖ Chen, Z., Wang, Z., Chen, J., Wang, S. and Huang, X. (2012) Sensitive and selective detection of glutathione based on resonance light scattering using sensitive gold nanoparticles as colorimetric probes. *Analyst* 137(13), 3132-3137.
- ❖ Cheng, C., Li, S., Thomas, A., Kotov, N.A. and Haag, R. (2017) Functional Graphene Nanomaterials Based Architectures: Biointeractions, Fabrications, and Emerging Biological Applications. *Chemical reviews*.
- ❖ Cheng, H., Xi, C., Meng, X., Hao, Y., Yu, Y. and Zhao, F. (2009) Polyethylene glycol-stabilized platinum nanoparticles: The efficient and recyclable catalysts for selective hydrogenation of o-chloronitrobenzene to o-chloroaniline. *Journal of colloid and interface science* 336(2), 675-678.
- ❖ Clark, J.H. (1999) Green chemistry: challenges and opportunities. *Green Chemistry* 1(1), 1-8.
- ❖ Connor, E.E., Mwamuka, J., Gole, A., Murphy, C.J. and Wyatt, M.D. (2005) Gold nanoparticles are taken up by human cells but do not cause acute cytotoxicity. *Small* 1(3), 325-327.
- ❖ Cruz, B.H., Díaz-Cruz, J.M., Ariño, C. and Esteban, M. (2000) Heavy metal binding by tannic acid: a voltammetric study. *Electroanalysis* 12(14), 1130-1137.
- ❖ Cui, R., Han, Z. and Zhu, J.J. (2011) Helical carbon nanotubes: intrinsic peroxidase catalytic activity and its application for biocatalysis and biosensing. *Chemistry-A European Journal* 17(34), 9377-9384.
- ❖ Dahl, J.A., Maddux, B.L. and Hutchison, J.E. (2007) Toward greener nanosynthesis. *Chemical reviews* 107(6), 2228-2269.
- ❖ Dahoumane, S.A., Djediat, C., Yéprémian, C., Couté, A., Fiévet, F., Coradin, T. and Brayner, R. (2012) Recycling and adaptation of *Klebsormidium flaccidum* microalgae for the sustained production of gold nanoparticles. *Biotechnology and bioengineering* 109(1), 284-288.
- ❖ Daniel, M.-C. and Astruc, D. (2004) Gold nanoparticles: assembly, supramolecular chemistry, quantum-size-related properties, and applications toward biology, catalysis, and nanotechnology. *Chemical reviews* 104(1), 293-346.
- ❖ Daniel, M.-C. and Astruc, D. (2004) Gold nanoparticles: assembly, supramolecular chemistry, quantum-size-related properties, and applications toward biology, catalysis, and nanotechnology. *Chemical reviews* 104(1), 293-346.
- ❖ Das, R.K., Borthakur, B.B. and Bora, U. (2010) Green synthesis of gold nanoparticles using ethanolic leaf extract of *Centella asiatica*. *Materials Letters* 64(13), 1445-1447.
- ❖ Das, R.K., Gogoi, N. and Bora, U. (2011) Green synthesis of gold nanoparticles using *Nyctanthes arbortristis* flower extract. *Bioprocess and biosystems engineering* 34(5), 615-619.
- ❖ Das, R.K., Sharma, P., Nahar, P. and Bora, U. (2011) Synthesis of gold nanoparticles using aqueous extract of *Calotropis procera* latex. *Materials Letters* 65(4), 610-613.
- ❖ Das, S.K., Dickinson, C., Lafir, F., Brougham, D.F. and Marsili, E. (2012) Synthesis, characterization and catalytic activity of gold nanoparticles biosynthesized with *Rhizopus oryzae* protein extract. *Green Chemistry* 14(5), 1322-1334.
- ❖ Deplanche, K. and Macaskie, L. (2008) Biorecovery of gold by *Escherichia coli* and *Desulfovibrio desulfuricans*. *Biotechnology and bioengineering* 99(5), 1055-1064.
- ❖ Devanesan, S., AlSalhi, M.S., Vishnubalaji, R., Alfuraydi, A.A., Alajeel, N.M., Alfayez, M., Murugan, K., Sayed, S.R., Nicoletti, M. and Benelli, G. (2017) Rapid biological synthesis of silver nanoparticles using plant seed extracts and their cytotoxicity on colorectal cancer cell lines. *Journal of Cluster Science* 28(1), 595-605.
- ❖ Devi, L.S. and Joshi, S. (2015) Ultrastructures of silver nanoparticles biosynthesized using endophytic fungi. *Journal of Microscopy and Ultrastructure* 3(1), 29-37.
- ❖ Dhand, V., Soumya, L., Bharadwaj, S., Chakra, S., Bhatt, D. and Sreedhar, B. (2016) Green synthesis of silver nanoparticles using *Coffea arabica* seed extract and its antibacterial activity. *Materials Science and Engineering: C* 58, 36-43.

- ❖ Dhas, T.S., Kumar, V.G., Karthick, V., Angel, K.J. and Govindaraju, K. (2014) Facile synthesis of silver chloride nanoparticles using marine alga and its antibacterial efficacy. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 120, 416-420.
- ❖ Dibrov, P., Dzioba, J., Gosink, K.K. and Häse, C.C. (2002) Chemiosmotic mechanism of antimicrobial activity of Ag⁺ in *Vibrio cholerae*. *Antimicrobial agents and chemotherapy* 46(8), 2668-2670.
- ❖ Divsar, F., Habibzadeh, K., Shariati, S. and Shahriarinour, M. (2015) Aptamer conjugated silver nanoparticles for the colorimetric detection of arsenic ions using response surface methodology. *Analytical Methods* 7(11), 4568-4576.
- ❖ Dong, B., Qin, D., Shi, H.L., Fang, Y.R., Wang, W.Z., He, Y.Y., Cao, B.S., Liu, Y.X. and Ding, Y. (2014) Local surface plasmon resonance of single silver nanorice particles in the near-infrared. *Microchimica Acta* 181(7-8), 791-795.
- ❖ Dong, B., Qin, D., Shi, H.L., Fang, Y.R., Wang, W.Z., He, Y.Y., Cao, B.S., Liu, Y.X. and Ding, Y. (2014) Local surface plasmon resonance of single silver nanorice particles in the near-infrared. *Microchimica Acta* 181(7-8), 791-795.
- ❖ Dong, C., Cao, C., Zhang, X., Zhan, Y., Wang, X., Yang, X., Zhou, K., Xiao, X. and Yuan, B. (2017) Wolfberry fruit (*Lycium barbarum*) extract mediated novel route for the green synthesis of silver nanoparticles. *Optik-International Journal for Light and Electron Optics* 130, 162-170.
- ❖ Dong, C., Zhang, X., Cai, H. and Cao, C. (2016) Green synthesis of biocompatible silver nanoparticles mediated by *Osmanthus fragrans* extract in aqueous solution. *Optik-International Journal for Light and Electron Optics* 127(22), 10378-10388.
- ❖ Dong, S., Tang, C., Zhou, H. and Zhao, H. (2004) Photochemical synthesis of gold nanoparticles by the sunlight radiation using a seeding approach. *Gold bulletin* 37(3-4), 187-195.
- ❖ Du, L., Jiang, H., Liu, X. and Wang, E. (2007) Biosynthesis of gold nanoparticles assisted by *Escherichia coli* DH5α and its application on direct electrochemistry of hemoglobin. *Electrochemistry Communications* 9(5), 1165-1170.
- ❖ Du, L., Xian, L. and Feng, J.-X. (2011) Rapid extra-/intracellular biosynthesis of gold nanoparticles by the fungus *Penicillium sp.* *Journal of Nanoparticle Research* 13(3), 921-930.
- ❖ Duan, J., Yin, H., Wei, R. and Wang, W. (2014) Facile colorimetric detection of Hg²⁺ based on anti-aggregation of silver nanoparticles. *Biosensors and Bioelectronics* 57, 139-142.
- ❖ Dubas, S.T. and Pimpan, V. (2008) Humic acid assisted synthesis of silver nanoparticles and its application to herbicide detection. *Materials Letters* 62(17), 2661-2663.
- ❖ Dubey, S.P., Lahtinen, M. and Sillanpää, M. (2010a) Green synthesis and characterizations of silver and gold nanoparticles using leaf extract of *Rosa rugosa*. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 364(1), 34-41.
- ❖ Dubey, S.P., Lahtinen, M. and Sillanpää, M. (2010c) Tansy fruit mediated greener synthesis of silver and gold nanoparticles. *Process Biochemistry* 45(7), 1065-1071.
- ❖ Dubey, S.P., Lahtinen, M., Särkkä, H. and Sillanpää, M. (2010b) Bioprospective of *Sorbus aucuparia* leaf extract in development of silver and gold nanocolloids. *Colloids and Surfaces B: Biointerfaces* 80(1), 26-33.
- ❖ Durán, N., Marcato, P.D., Alves, O.L., De Souza, G.I. and Esposito, E. (2005) Mechanistic aspects of biosynthesis of silver nanoparticles by several *Fusarium oxysporum* strains. *Journal of nanobiotechnology* 3(1), 8.
- ❖ Durán, N., Marcato, P.D., Durán, M., Yadav, A., Gade, A. and Rai, M. (2011) Mechanistic aspects in the biogenic synthesis of extracellular metal nanoparticles by peptides, bacteria, fungi, and plants. *Applied microbiology and biotechnology* 90(5), 1609-1624.
- ❖ Dutta, S. and Ray, S. (2014) Evaluation of antioxidant potentials of leaf aqueous and methanolic extracts of *Calophyllum inophyllum* in relation to total phenol and flavonoid contents. *Int J Pharm Bio Sci* 5(3), 441-450.
- ❖ Dwivedi, A.D. and Gopal, K. (2010) Biosynthesis of silver and gold nanoparticles using *Chenopodium album* leaf extract. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 369(1), 27-33.
- ❖ Edison, T.N.J.I., Lee, Y.R. and Sethuraman, M.G. (2016) Green synthesis of silver nanoparticles using *Terminalia cuneata* and its catalytic action in reduction of direct yellow-12 dye. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 161, 122-129.
- ❖ Elavazhagan, T. and Arunachalam, K.D. (2011) *Memecylon edule* leaf extract mediated green synthesis of silver and gold nanoparticles. *International journal of nanomedicine* 6, 1265.
- ❖ Elia, P., Zach, R., Hazan, S., Kolusheva, S., Porat, Z.e. and Zeiri, Y. (2014) Green synthesis of gold nanoparticles using plant extracts as reducing agents. *International journal of nanomedicine* 9, 4007.
- ❖ Elumalai, E., Prasad, T., Hemachandran, J., Therasa, S.V., Thirumalai, T. and David, E. (2010) Extracellular synthesis of silver nanoparticles using leaves of *Euphorbia hirta* and their antibacterial activities. *J Pharm Sci Res* 2(9), 549-554.
- ❖ Emmanuel, R., Karuppiah, C., Chen, S.-M., Palanisamy, S., Padmavathy, S. and Prakash, P. (2014) Green synthesis of gold nanoparticles for trace level detection of a hazardous pollutant (nitrobenzene) causing Methemoglobinemia. *Journal of Hazardous Materials* 279, 117-124.
- ❖ Ensafi, A.A., Rezaloo, F. and Rezaei, B. (2016) Electrochemical sensor based on porous silicon/silver nanocomposite for the determination of hydrogen peroxide. *Sensors and Actuators B: Chemical* 231, 239-244.

- ❖ Eren, T., Atar, N., Yola, M.L., Karimi-Maleh, H., Çolak, A.T. and Olgun, A. (2015) Facile and green fabrication of silver nanoparticles on a polyoxometalate for Li-ion battery. *Ionics* 21(8), 2193-2199.
- ❖ Estrela, J.M., Ortega, A. and Obrador, E. (2006) Glutathione in cancer biology and therapy. *Critical reviews in clinical laboratory sciences* 43(2), 143-181.
- ❖ Etris, S.F. (1997) Silver and silver alloys. *Kirk-Othmer encyclopedia of chemical technology*.
- ❖ Faraday, M. (1857) The Bakerian lecture: experimental relations of gold (and other metals) to light. *Philosophical Transactions of the Royal Society of London* 147, 145-181.
- ❖ Farooq, U., Waseem, B., Muzaffar, R., Tripathi, J., Tharani, M. and Sharma, M. (2014) A comparative study of phytochemical investigation of *Xanthium strumarium* medicinal plant. *International Journal of Research in Pharmacy and Chemistry* 4(1), 96-100.
- ❖ Farooq, U., Waseem, B., Muzaffar, R., Tripathi, J., Tharani, M. and Sharma, M. (2014) A comparative study of phytochemical investigation of *Xanthium strumarium* medicinal plant. *International Journal of Research in Pharmacy and Chemistry* 4(1), 96-100.
- ❖ Fayaz, A.M., Girilal, M., Rahman, M., Venkatesan, R. and Kalaichelvan, P. (2011a) Biosynthesis of silver and gold nanoparticles using thermophilic bacterium *Geobacillus stearothermophilus*. *Process Biochemistry* 46(10), 1958-1962.
- ❖ Fayaz, A.M., Girilal, M., Venkatesan, R. and Kalaichelvan, P. (2011b) Biosynthesis of anisotropic gold nanoparticles using *Maduca longifolia* extract and their potential in infrared absorption. *Colloids and Surfaces B: Biointerfaces* 88(1), 287-291.
- ❖ Feng, J., Huang, P., Shi, S., Deng, K.-Y. and Wu, F.-Y. (2017) Colorimetric detection of glutathione in cells based on peroxidase-like activity of gold nanoclusters: A promising powerful tool for identifying cancer cells. *Analytica chimica acta* 967, 64-69.
- ❖ Ferrari, M. (2005) Cancer nanotechnology: opportunities and challenges. *Nature Reviews Cancer* 5(3), 161-171.
- ❖ Feynman, R.P. (1960) There's plenty of room at the bottom. *Engineering and science* 23(5), 22-36.
- ❖ Filippo, E., Serra, A., Buccolieri, A. and Manno, D. (2010) Green synthesis of silver nanoparticles with sucrose and maltose: morphological and structural characterization. *Journal of Non-Crystalline Solids* 356(6), 344-350.
- ❖ Flavel, B.S., Yu, J., Shapter, J.G. and Quinton, J.S. (2009) Patterned polyaniline & carbon nanotube-polyaniline composites on silicon. *Soft Matter* 5(1), 164-172.
- ❖ Francis, S., Joseph, S., Koshy, E.P. and Mathew, B. (2017) Green synthesis and characterization of gold and silver nanoparticles using *Mussaenda glabrata* leaf extract and their environmental applications to dye degradation. *Environmental Science and Pollution Research*, 1-11.
- ❖ Freitas, C. and Müller, R.H. (1998) Effect of light and temperature on zeta potential and physical stability in solid lipid nanoparticle (SLNTM) dispersions. *International journal of pharmaceutics* 168(2), 221-229.
- ❖ Gaikwad, S., Ingle, A., Gade, A., Rai, M., Falanga, A., Incoronato, N., Russo, L., Galdiero, S. and Galdiero, M. (2013) Antiviral activity of mycosynthesized silver nanoparticles against herpes simplex virus and human parainfluenza virus type 3. *International journal of nanomedicine* 8, 4303.
- ❖ Gajbhiye, M., Kesharwani, J., Ingle, A., Gade, A. and Rai, M. (2009) Fungus-mediated synthesis of silver nanoparticles and their activity against pathogenic fungi in combination with fluconazole. *Nanomedicine: Nanotechnology, Biology and Medicine* 5(4), 382-386.
- ❖ Gangula, A., Podila, R., Karanam, L., Janardhana, C. and Rao, A.M. (2011) Catalytic reduction of 4-nitrophenol using biogenic gold and silver nanoparticles derived from *Breynia rhamnooides*. *Langmuir* 27(24), 15268-15274.
- ❖ Gao, B., He, S., Guo, J. and Wang, R. (2006) Antibacterial property and mechanism of copolymer of acrylamide and quaternary salt of 4-vinyl pyridine. *Journal of applied polymer science* 100(2), 1531-1537.
- ❖ Gao, H., Xiao, F., Ching, C.B. and Duan, H. (2011) One-step electrochemical synthesis of PtNi nanoparticle-graphene nanocomposites for nonenzymatic amperometric glucose detection. *ACS applied materials & interfaces* 3(8), 3049-3057.
- ❖ Gao, L., Zhuang, J., Nie, L., Zhang, J., Zhang, Y., Gu, N., Wang, T., Feng, J., Yang, D. and Perrett, S. (2007) Intrinsic peroxidase-like activity of ferromagnetic nanoparticles. *Nature nanotechnology* 2(9), 577-583.
- ❖ Gao, X., Jang, J. and Nagase, S. (2009a) Hydrazine and thermal reduction of graphene oxide: reaction mechanisms, product structures, and reaction design. *The Journal of Physical Chemistry C* 114(2), 832-842.
- ❖ Gao, X., Lu, Y., He, S., Li, X. and Chen, W. (2015) Colorimetric detection of iron ions (III) based on the highly sensitive plasmonic response of the N-acetyl-L-cysteine-stabilized silver nanoparticles. *Analytica chimica acta* 879, 118-125.
- ❖ Gao, Y., Shan, D., Cao, F., Gong, J., Li, X., Ma, H.-y., Su, Z.-m. and Qu, L.-y. (2009b) Silver/polyaniline composite nanotubes: one-step synthesis and electrocatalytic activity for neurotransmitter dopamine. *The Journal of Physical Chemistry C* 113(34), 15175-15181.
- ❖ Gardea-Torresdey, J., Parsons, J., Gomez, E., Peralta-Videa, J., Troiani, H., Santiago, P. and Yacaman, M.J. (2002) Formation and growth of Au nanoparticles inside live alfalfa plants. *Nano Letters* 2(4), 397-401.
- ❖ Geraldes, A.N., Alves, A., Leal, J., Estrada-Villegas, G.M., Lincopan, N. and Katti, K.V. (2016) Green Nanotechnology from Plant Extracts: Synthesis and Characterization of Gold Nanoparticles. *Advances in Nanoparticles* 5(03), 176.
- ❖ Gericke, M. and Pinches, A. (2006a) Microbial production of gold nanoparticles. *Gold bulletin* 39(1), 22-28.

- ❖ Gericke, M. and Pinches, A. (2006b) Biological synthesis of metal nanoparticles. *Hydrometallurgy* 83(1), 132-140.
- ❖ Ghanbari, K. and Moloudi, M. (2016) Flower-like ZnO decorated polyaniline/reduced graphene oxide nanocomposites for simultaneous determination of dopamine and uric acid. *Analytical Biochemistry* 512, 91-102.
- ❖ Gharbi, N., Pressac, M., Hadchouel, M., Szwarc, H., Wilson, S.R. and Moussa, F. (2005) [60] fullerene is a powerful antioxidant in vivo with no acute or subacute toxicity. *Nano Letters* 5(12), 2578-2585.
- ❖ Ghodake, G. and Lee, D.S. (2011) Biological synthesis of gold nanoparticles using the aqueous extract of the brown algae *Laminaria japonica*. *Journal of Nanoelectronics and Optoelectronics* 6(3), 268-271.
- ❖ Ghodake, G., Deshpande, N., Lee, Y. and Jin, E. (2010) Pear fruit extract-assisted room-temperature biosynthesis of gold nanoplates. *Colloids and Surfaces B: Biointerfaces* 75(2), 584-589.
- ❖ Ghorbani, H. (2013) Biosynthesis of silver nanoparticles by *Escherichia coli*. *Asian Journal of Chemistry* 25(3), 1247.
- ❖ Ghosh, S., Ahire, M., Patil, S., Jabgunde, A., Bhat Dusane, M., Joshi, B.N., Pardesi, K., Jachak, S., Dhavale, D.D. and Chopade, B.A. (2011) Antidiabetic activity of *Gnidia glauca* and *Dioscorea bulbifera*: Potent amylase and glucosidase inhibitors. *Evidence-Based Complementary and Alternative Medicine* 2012.
- ❖ Ghule, K., Ghule, A.V., Liu, J.-Y. and Ling, Y.-C. (2006) Microscale size triangular gold prisms synthesized using Bengal Gram beans (*Cicer arietinum L.*) extract and HAuCl₄·3H₂O: A green biogenic approach. *Journal of Nanoscience and Nanotechnology* 6(12), 3746-3751.
- ❖ Gonnelli, C., Giordano, C., Fontani, U., Salvatici, M.C. and Ristori, S. (2018) Advances in Bionanomaterials, pp. 155-164, Springer.
- ❖ Gonzalez-Ballesteros, N., Prado-López, S., Rodriguez-Gonzalez, J., Lastra, M. and Rodríguez-Argüelles, M. (2017) Green synthesis of gold nanoparticles using brown algae *Cystoseira baccata*: Its activity in colon cancer cells. *Colloids and Surfaces B: Biointerfaces* 153, 190-198.
- ❖ Gopinath, K. and Arumugam, A. (2014) Extracellular mycosynthesis of gold nanoparticles using *Fusarium solani*. *Applied Nanoscience* 4(6), 657-662.
- ❖ Gopinath, K., Venkatesh, K., Ilangoan, R., Sankaranarayanan, K. and Arumugam, A. (2013) Green synthesis of gold nanoparticles from leaf extract of *Terminalia arjuna*, for the enhanced mitotic cell division and pollen germination activity. *Industrial Crops and Products* 50, 737-742.
- ❖ Gopinath, V., MubarakAli, D., Priyadarshini, S., Priyadarshini, N.M., Thajuddin, N. and Govindarajan, M., Rajeswary, M., Veerakumar, K., Muthukumaran, U., Hoti, S., Mehlhorn, H., Barnard, D.R. and Benelli, G. (2016) Novel synthesis of silver nanoparticles using *Bauhinia variegata*: a recent eco-friendly approach for mosquito control. *Parasitology research* 115(2), 723-733.
- ❖ Govindaraju, K., Kiruthiga, V., Kumar, V.G. and Singaravelu, G. (2009) Extracellular synthesis of silver nanoparticles by a marine alga, *Sargassum wightii* Greville and their antibacterial effects. *Journal of Nanoscience and Nanotechnology* 9(9), 5497-5501.
- ❖ Grün, C.H. and Besseau, S. (2016) Normal-phase liquid chromatography-atmospheric-pressure photoionization-mass spectrometry analysis of cholesterol and phytosterol oxidation products. *Journal of Chromatography A* 1439, 74-81.
- ❖ Guo, C. and Irudayaraj, J. (2011) Fluorescent Ag clusters via a protein-directed approach as a Hg (II) ion sensor. *Analytical chemistry* 83(8), 2883-2889.
- ❖ Guo, M., Chen, J., Li, J., Nie, L. and Yao, S. (2004) Carbon Nanotubes-Based Amperometric Cholesterol Biosensor Fabricated Through Layer-by-Layer Technique. *Electroanalysis* 16(23), 1992-1998.
- ❖ Guo, S., Huang, Y., Jiang, Q., Sun, Y., Deng, L., Liang, Z., Du, Q., Xing, J., Zhao, Y. and Wang, P.C. (2010) Enhanced gene delivery and siRNA silencing by gold nanoparticles coated with charge-reversal polyelectrolyte. *ACS nano* 4(9), 5505-5511.
- ❖ Guo, X., Wang, Y., Wu, F., Ni, Y. and Kokot, S. (2015) A colorimetric method of analysis for trace amounts of hydrogen peroxide with the use of the nano-properties of molybdenum disulfide. *Analyst* 140(4), 1119-1126.
- ❖ Gupta, A. and Saha, S.K. (2012) Emerging photoluminescence in azo-pyridine intercalated graphene oxide layers. *Nanoscale* 4(20), 6562-6567.
- ❖ Gupta, A., Verma, N.C., Khan, S. and Nandi, C.K. (2016) Carbon dots for naked eye colorimetric ultrasensitive arsenic and glutathione detection. *Biosensors and Bioelectronics* 81, 465-472.
- ❖ Gupta, A.K. and Gupta, M. (2005) Synthesis and surface engineering of iron oxide nanoparticles for biomedical applications. *Biomaterials* 26(18), 3995-4021.
- ❖ Gupta, V.K., Atar, N., Yola, M.L., Eryilmaz, M., Torul, H., Tamer, U., Boyacı, İ.H. and Üstündağ, Z. (2013) A novel glucose biosensor platform based on Ag@ AuNPs modified graphene oxide nanocomposite and SERS application. *Journal of colloid and interface science* 406, 231-237.
- ❖ Gurunathan, S., Kalishwaralal, K., Vaidyanathan, R., Venkataraman, D., Pandian, S.R.K., Muniyandi, J., Hariharan, N. and Eom, S.H. (2009) Biosynthesis, purification and characterization of silver nanoparticles using *Escherichia coli*. *Colloids and Surfaces B: Biointerfaces* 74(1), 328-335.
- ❖ Handy, R.D., Owen, R. and Valsami-Jones, E. (2008) The ecotoxicology of nanoparticles and nanomaterials: current status, knowledge gaps, challenges, and future needs. *Ecotoxicology* 17(5), 315-325.

- ❖ He, G., Li, J., Li, W., Li, B., Noor, N., Xu, K., Hu, J. and Parkin, I.P. (2015) One pot synthesis of nickel foam supported self-assembly of NiWO₄ and CoWO₄ nanostructures that act as high performance electrochemical capacitor electrodes. *Journal of Materials Chemistry A* 3(27), 14272-14278.
- ❖ He, S., Zhang, Y., Guo, Z. and Gu, N. (2008) Biological synthesis of gold nanowires using extract of *Rhodopseudomonas capsulata*. *Biotechnology Progress* 24(2), 476-480.
- ❖ He, W., Zhou, Y.-T., Wamer, W.G., Boudreau, M.D. and Yin, J.-J. (2012) Mechanisms of the pH dependent generation of hydroxyl radicals and oxygen induced by Ag nanoparticles. *Biomaterials* 33(30), 7547-7555.
- ❖ He, Y. and Zhang, X. (2016) Ultrasensitive colorimetric detection of manganese (II) ions based on anti-aggregation of unmodified silver nanoparticles. *Sensors and Actuators B: Chemical* 222, 320-324.
- ❖ He, Y., Niu, X., Shi, L., Zhao, H., Li, X., Zhang, W., Pan, J., Zhang, X., Yan, Y. and Lan, M. (2017) Photometric determination of free cholesterol via cholesterol oxidase and carbon nanotube supported Prussian blue as a peroxidase mimic. *Microchimica Acta*, 1-9.
- ❖ Heydari, R. and Rashidipour, M. (2015) Green synthesis of silver nanoparticles using extract of oak fruit hull (Jaft): synthesis and in vitro cytotoxic effect on MCF-7 cells. *International journal of breast cancer* 2015.
- ❖ Hosea, M., Greene, B., Mcpherson, R., Henzl, M., Alexander, M.D. and Darnall, D.W. (1986) Accumulation of elemental gold on the alga *Chlorella vulgaris*. *Inorganica Chimica Acta* 123(3), 161-165.
- ❖ Hoshyar, R., Khayati, G.R., Poorgholami, M. and Kaykhaii, M. (2016) A novel green one-step synthesis of gold nanoparticles using crocin and their anti-cancer activities. *Journal of Photochemistry and Photobiology B: Biology* 159, 237-242.
- ❖ Hou, W.-C., Stuart, B., Howes, R. and Zepp, R.G. (2013) Sunlight-driven reduction of silver ions by natural organic matter: formation and transformation of silver nanoparticles. *Environmental science & technology* 47(14), 7713-7721.
- ❖ Hsieh, C.T., Pan, C. and Chen, W.Y. (2011) Synthesis of silver nanoparticles on carbon papers for electrochemical catalysts. *Journal of Power Sources* 196(15), 6055-6061.
- ❖ Huang, J., Li, Q., Sun, D., Lu, Y., Su, Y., Yang, X., Wang, H., Wang, Y., Shao, W. and He, N. (2007) Biosynthesis of silver and gold nanoparticles by novel sundried *Cinnamomum camphora* leaf. *Nanotechnology* 18(10), 105104.
- ❖ Huang, X., Wu, H., Liao, X. and Shi, B. (2010) One-step, size-controlled synthesis of gold nanoparticles at room temperature using plant tannin. *Green Chemistry* 12(3), 395-399.
- ❖ Husseiny, M., El-Aziz, M.A., Badr, Y. and Mahmoud, M. (2007) Biosynthesis of gold nanoparticles using *Pseudomonas aeruginosa*. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 67(3), 1003-1006.
- ❖ Ingle, A., Gade, A., Pierrat, S., Sonnichsen, C. and Rai, M. (2008) Mycosynthesis of silver nanoparticles using the fungus *Fusarium acuminatum* and its activity against some human pathogenic bacteria. *Current Nanoscience* 4(2), 141-144.
- ❖ Iravani, S. (2011) Green synthesis of metal nanoparticles using plants. *Green Chemistry* 13(10), 2638-2650.
- ❖ Isaac, G. and Renitta, R.E. (2015) Brown Algae mediated synthesis, characterization of gold nano particles using *Padina pavonica* and their antibacterial activity against human pathogens. *Int. J. PharmTech. Res.* 8, 31-40.
- ❖ Ismail, E., Khenfouch, M., Dhlamini, M., Dube, S. and Maaza, M. (2017) Green palladium and palladium oxide nanoparticles synthesized via *Aspalathus linearis* natural extract. *Journal of Alloys and Compounds* 695, 3632-3638.
- ❖ Jacob, S.J.P., Prasad, V.S., Sivasankar, S. and Muralidharan, P. (2017) Biosynthesis of silver nanoparticles using dried fruit extract of *Ficus carica*-Screening for its anticancer activity and toxicity in animal models. *Food and Chemical Toxicology*.
- ❖ Jacob, Z. and Shalaev, V.M. (2011) Plasmonics goes quantum. *Science* 334(6055), 463-464.
- ❖ Jagtap, U.B. and Bapat, V.A. (2013) Green synthesis of silver nanoparticles using *Artocarpus heterophyllus* Lam. seed extract and its antibacterial activity. *Industrial Crops and Products* 46, 132-137.
- ❖ Jain, R., Sinha, A., Kumari, N. and Khan, A.L. (2016) A polyaniline/graphene oxide nanocomposite as a voltammetric sensor for electroanalytical detection of clonazepam. *Analytical Methods* 8(15), 3034-3045.
- ❖ Jang, S.J., Yang, I.J., Tettey, C.O., Kim, K.M. and Shin, H.M. (2016) In-vitro anticancer activity of green synthesized silver nanoparticles on MCF-7 human breast cancer cells. *Materials Science and Engineering: C* 68, 430-435.
- ❖ Jayaprakash, N., Vijaya, J.J., Kaviyarasu, K., Kombaiah, K., Kennedy, L.J., Ramalingam, R.J., Munusamy, M.A. and Al-Lohedan, H.A. (2017) Green synthesis of Ag nanoparticles using Tamarind fruit extract for the antibacterial studies. *Journal of Photochemistry and Photobiology B: Biology* 169, 178-185.
- ❖ Jayaseelan, C., Ramkumar, R., Rahuman, A.A. and Perumal, P. (2013) Green synthesis of gold nanoparticles using seed aqueous extract of *Abelmoschus esculentus* and its antifungal activity. *Industrial Crops and Products* 45, 423-429.
- ❖ Jeeshna, M., Paulsamy, S. and Mallikadevi, T. (2011) Phytochemical constituents and antimicrobial studies of the exotic plant species, *Croton bonplandianum* Baill. *J Life Sci* 3(1), 23-27.

- ❖ Jena, J., Pradhan, N., Dash, B.P., Sukla, L.B. and Panda, P.K. (2013) Biosynthesis and characterization of silver nanoparticles using microalga *Chlorococcum humicola* and its antibacterial activity. *Int J Nanomater Biostruct* 3(1), 1-8.
- ❖ Jha, A.K., Prasad, K., Prasad, K. and Kulkarni, A. (2009) Plant system: nature's nanofactory. *Colloids and Surfaces B: Biointerfaces* 73(2), 219-223.
- ❖ Ji, Y., Zhang, Y., Wang, Z. and Zhang, T. (2015) Infrared light-assisted preparation of Ag nanoparticles-reduced graphene oxide nanocomposites for non-enzymatic H₂O₂ sensing. *Materials Research Bulletin* 72, 184-187.
- ❖ Joerger, R., Klaus, T. and Granqvist, C. (2000) Biologically Produced Silver-Carbon Composite Materials for Optically Functional Thin-Film Coatings. *Advanced Materials* 12(6), 407-409.
- ❖ Joseph, S. and Mathew, B. (2015) Microwave assisted facile green synthesis of silver and gold nanocatalysts using the leaf extract of *Aerva lanata*. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 136, 1371-1379.
- ❖ Joshi, P., Nair, M. and Kumar, D. (2016) pH-controlled sensitive and selective detection of Cr (III) and Mn (II) by using clove (*S. aromaticum*) reduced and stabilized silver nanospheres. *Analytical Methods* 8(6), 1359-1366.
- ❖ Jv, Y., Li, B. and Cao, R. (2010) Positively-charged gold nanoparticles as peroxidase mimic and their application in hydrogen peroxide and glucose detection. *Chemical communications* 46(42), 8017-8019.
- ❖ Kalimuthu, K., Babu, R.S., Venkataraman, D., Bilal, M. and Gurunathan, S. (2008) Biosynthesis of silver nanocrystals by *Bacillus licheniformis*. *Colloids and Surfaces B: Biointerfaces* 65(1), 150-153.
- ❖ Kalpana, D. and Lee, Y.S. (2013) Synthesis and characterization of bactericidal silver nanoparticles using cultural filtrate of simulated microgravity grown *Klebsiella pneumoniae*. *Enzyme and microbial technology* 52(3), 151-156.
- ❖ Kamboj, A. and Saluja, A. (2010) Phytopharmacological review of *Xanthium strumarium* L.(Cocklebur). *International journal of green pharmacy* 4(3), 129.
- ❖ Kandhare, A.D., Kumar, V.S., Adil, M., Rajmane, A.R., Ghosh, P. and Bodhankar, S.L. (2012) Investigation of gastro protective activity of *Xanthium strumarium* L. by modulation of cellular and biochemical marker. *Oriental Pharmacy and Experimental Medicine* 12(4), 287-299.
- ❖ Kandhare, A.D., Kumar, V.S., Adil, M., Rajmane, A.R., Ghosh, P. and Bodhankar, S.L. (2012) Investigation of gastro protective activity of *Xanthium strumarium* L. by modulation of cellular and biochemical marker. *Oriental Pharmacy and Experimental Medicine* 12(4), 287-299.
- ❖ Kannan, R.R.R., Arumugam, R., Ramya, D., Manivannan, K. and Anantharaman, P. (2013) Green synthesis of silver nanoparticles using marine macroalga *Chaetomorpha linum*. *Applied Nanoscience* 3(3), 229-233.
- ❖ Karunakaran, G., Jagathambal, M., Gusev, A., Kolesnikov, E., Mandal, A.R. and Kuznetsov, D. (2016) *Allamanda cathartica* flower's aqueous extract-mediated green synthesis of silver nanoparticles with excellent antioxidant and antibacterial potential for biomedical application. *MRS Communications* 6(1), 41-46.
- ❖ Kasithevar, M., Saravanan, M., Prakash, P., Kumar, H., Ovais, M., Barabadi, H. and Shinwari, Z.K. (2017) Green synthesis of silver nanoparticles using *Alysicarpus monilifer* leaf extract and its antibacterial activity against MRSA and CoNS isolates in HIV patients. *Journal of Interdisciplinary Nanomedicine* 2(2), 131-141.
- ❖ Kasthuri, J., Veerapandian, S. and Rajendiran, N. (2009) Biological synthesis of silver and gold nanoparticles using apiin as reducing agent. *Colloids and Surfaces B: Biointerfaces* 68(1), 55-60.
- ❖ Kathiravan, V., Ravi, S. and Ashokkumar, S. (2014) Synthesis of silver nanoparticles from *Melia dubia* leaf extract and their in vitro anticancer activity. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 130, 116-121.
- ❖ Kathiraven, T., Sundaramanickam, A., Shanmugam, N. and Balasubramanian, T. (2015) Green synthesis of silver nanoparticles using marine algae *Caulerpa racemosa* and their antibacterial activity against some human pathogens. *Applied Nanoscience* 5(4), 499-504.
- ❖ Kathiresan, K., Manivannan, S., Nabeel, M. and Dhivya, B. (2009) Studies on silver nanoparticles synthesized by a marine fungus, *Penicillium fellutanum* isolated from coastal mangrove sediment. *Colloids and Surfaces B: Biointerfaces* 71(1), 133-137.
- ❖ Kelly, K.L., Coronado, E., Zhao, L.L. and Schatz, G.C. (2003) The optical properties of metal nanoparticles: the influence of size, shape, and dielectric environment, ACS Publications.
- ❖ Kesarkar, R., Oza, G., Pandey, S., Dahake, R., Mukherjee, S., Chowdhary, A. and Sharon, M. (2017) Gold nanoparticles: effective as both entry inhibitors and virus neutralizing agents against HIV. *Journal of Microbiology and Biotechnology Research* 2(2), 276-283.
- ❖ Kesharwani, J., Yoon, K.Y., Hwang, J. and Rai, M. (2009) Phytofabrication of silver nanoparticles by leaf extract of *Datura metel*: hypothetical mechanism involved in synthesis. *Journal of Bionanoscience* 3(1), 39-44.
- ❖ Khan, A., Rashid, R., Murtaza, G. and Zahra, A. (2014) Gold nanoparticles: synthesis and applications in drug delivery. *Tropical journal of pharmaceutical research* 13(7), 1169-1177.
- ❖ Khanra, P., Kuila, T., Kim, N.H., Bae, S.H., Yu, D.-s. and Lee, J.H. (2012) Simultaneous bio-functionalization and reduction of graphene oxide by baker's yeast. *Chemical Engineering Journal* 183, 526-533.
- ❖ Klaus, T., Joerger, R., Olsson, E. and Granqvist, C.-G. (1999) Silver-based crystalline nanoparticles, microbially fabricated. *Proceedings of the National Academy of Sciences* 96(24), 13611-13614.

- ❖ Knoll, W. (1998) Interfaces and thin films as seen by bound electromagnetic waves. Annual Review of Physical Chemistry 49(1), 569-638.
- ❖ Koch, C., Ovid'ko, I., Seal, S. and Veprek, S. (2007) Structural nanocrystalline materials: fundamentals and applications, Cambridge University Press.
- ❖ Konishi, Y., Tsukiyama, T., Ohno, K., Saitoh, N., Nomura, T. and Nagamine, S. (2006) Intracellular recovery of gold by microbial reduction of AuCl_4^- ions using the anaerobic bacterium *Shewanella* alga. Hydrometallurgy 81(1), 24-29.
- ❖ Korbekandi, H., Chitsazi, M.R., Asghari, G., Bahri Najafi, R., Badii, A. and Iravani, S. (2015) Green biosynthesis of silver nanoparticles using *Quercus brantii* (oak) leaves hydroalcoholic extract. Pharmaceutical biology 53(6), 807-812.
- ❖ Kornfeld, R. and Kornfeld, S. (1985) Assembly of asparagine-linked oligosaccharides. Annual review of biochemistry 54(1), 631-664.
- ❖ Kowshik, M., Ashtaputre, S., Kharrazi, S., Vogel, W., Urban, J., Kulkarni, S.K. and Paknikar, K. (2002) Extracellular synthesis of silver nanoparticles by a silver-tolerant yeast strain MKY3. Nanotechnology 14(1), 95.
- ❖ Kraynov, A. and Müller, T.E. (2011) Applications of Ionic Liquids in Science and Technology, InTech.
- ❖ Krishnaraj, C., Muthukumaran, P., Ramachandran, R., Balakumaran, M. and Kalaichelvan, P. (2014) *Acalypha indica Linn*: biogenic synthesis of silver and gold nanoparticles and their cytotoxic effects against MDA-MB-231, human breast cancer cells. Biotechnology Reports 4, 42-49.
- ❖ Kroto, H.W., Heath, J.R., Obrien, S.C., Curl, R.F. and Smalley, R.E. (1985) C (60): buckminsterfullerene. Nature 318, 162.
- ❖ Kudle, K.R., Donda, M.R., Alwala, J., Koyyati, R., Nagati, V., Merugu, R., Prashanthi, Y. and Rudra, M.P. (2012) Biofabrication of silver nanoparticles using *Cuminum cyminum* through microwave irradiation. International Journal of Nanomaterials and Biostructures 2(4), 65-69.
- ❖ Kudle, K.R., Donda, M.R., Merugu, R., Prashanthi, Y. and Rudra, M.P. (2014) Investigation on the Cytotoxicity of Green Synthesis and Characterization of Silver nanoparticles using *Justicia adhatoda* Leaves on human epithelioid carcinoma cells and evaluation of their antibacterial activity. Int. J. Drug Dev. & Res 6(1), 0975-9344.
- ❖ Kumar, B., Angulo, Y., Smita, K., Cumbal, L. and Debut, A. (2016a) Capuli cherry-mediated green synthesis of silver nanoparticles under white solar and blue LED light. Particuology 24, 123-128.
- ❖ Kumar, C.G. and Poornachandra, Y. (2015) Biodirected synthesis of Miconazole-conjugated bacterial silver nanoparticles and their application as antifungal agents and drug delivery vehicles. Colloids and Surfaces B: Biointerfaces 125, 110-119.
- ❖ Kumar, K.M., Mandal, B.K., Sinha, M. and Krishnakumar, V. (2012b) *Terminalia chebula* mediated green and rapid synthesis of gold nanoparticles. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 86, 490-494.
- ❖ Kumar, K.P., Paul, W. and Sharma, C.P. (2011) Green synthesis of gold nanoparticles with *Zingiber officinale* extract: characterization and blood compatibility. Process Biochemistry 46(10), 2007-2013.
- ❖ Kumar, N., Kumar, H., Mann, B. and Seth, R. (2016a) Colorimetric determination of melamine in milk using unmodified silver nanoparticles. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 156, 89-97.
- ❖ Kumar, P., Govindaraju, M., Senthamilselvi, S. and Premkumar, K. (2013) Photocatalytic degradation of methyl orange dye using silver (Ag) nanoparticles synthesized from *Ulva lactuca*. Colloids and Surfaces B: Biointerfaces 103, 658-661.
- ❖ Kumar, P., Senthamil Selvi, S., Lakshmi Prabha, A., Prem Kumar, K., Ganeshkumar, R. and Govindaraju, M. (2012a) Synthesis of silver nanoparticles from *Sargassum tenerrimum* and screening phytochemicals for its antibacterial activity. Nano Biomed Eng 4(1), 12-16.
- ❖ Kumar, P.V., Pammi, S., Kollu, P., Satyanarayana, K. and Shameem, U. (2014) Green synthesis and characterization of silver nanoparticles using *Boerhaavia diffusa* plant extract and their anti bacterial activity. Industrial Crops and Products 52, 562-566.
- ❖ Kumar, S.A., Abyaneh, M.K., Gosavi, S., Kulkarni, S.K., Pasricha, R., Ahmad, A. and Khan, M. (2007) Nitrate reductase-mediated synthesis of silver nanoparticles from AgNO_3 . Biotechnology letters 29(3), 439-445.
- ❖ Kumar, S.D., Singaravelu, G., Murugan, K., Ajithkumar, S., Sivashanmugam, K., Nicoletti, M. and Benelli, G. (2017a) *Aegiceras corniculatum*-Mediated Green Synthesis of Silver Nanoparticles: Biophysical Characterization and Cytotoxicity on Vero Cells. Journal of Cluster Science 28(1), 277-285.
- ❖ Kumar, V., Bano, D., Mohan, S., Singh, D.K. and Hasan, S.H. (2016) Sunlight-induced green synthesis of silver nanoparticles using aqueous leaf extract of *Polyalthia longifolia* and its antioxidant activity. Materials Letters 181, 371-377.
- ❖ Kumar, V., Gundampati, R.K., Singh, D.K., Bano, D., Jagannadham, M.V. and Hasan, S.H. (2016a) Photoinduced green synthesis of silver nanoparticles with highly effective antibacterial and hydrogen peroxide sensing properties. Journal of Photochemistry and Photobiology B: Biology 162, 374-385.
- ❖ Kumar, V., Gundampati, R.K., Singh, D.K., Jagannadham, M.V., Sundar, S. and Hasan, S.H. (2016d) Photo-induced rapid biosynthesis of silver nanoparticle using aqueous extract of *Xanthium strumarium* and its antibacterial and antileishmanial activity. Journal of Industrial and Engineering Chemistry 37, 224-236.

- ❖ Kumar, V., Mohan, S., Singh, D.K., Verma, D.K., Singh, V.K. and Hasan, S.H. (2017b) Photo-mediated optimized synthesis of silver nanoparticles for the selective detection of Iron (III), antibacterial and antioxidant activity. Materials Science and Engineering: C 71, 1004-1019.
- ❖ Kumar, V., Singh, D.K., Mohan, S. and Hasan, S.H. (2016b) Photo-induced biosynthesis of silver nanoparticles using aqueous extract of *Erigeron bonariensis* and its catalytic activity against Acridine Orange. Journal of Photochemistry and Photobiology B: Biology 155, 39-50.
- ❖ Kumar, V., Singh, D.K., Mohan, S., Bano, D., Gundampati, R.K. and Hasan, S.H. (2017c) Green synthesis of silver nanoparticle for the selective and sensitive colorimetric detection of mercury (II) ion. Journal of Photochemistry and Photobiology B: Biology 168, 67-77.
- ❖ Kumar, V., Singh, D.K., Mohan, S., Gundampati, R.K. and Hasan, S.H. (2017d) Photoinduced green synthesis of silver nanoparticles using aqueous extract of *Physalis angulata* and its antibacterial and antioxidant activity. Journal of Environmental Chemical Engineering 5(1), 744-756.
- ❖ Kumar, R., Barsainya, M. and Singh, D.P. (2017) Biogenic synthesis of silver nanoparticle by using secondary metabolites from *Pseudomonas aeruginosa* DM1 and its anti-algal effect on Chlorella vulgaris and Chlorella pyrenoidosa. Environmental Science and Pollution Research 24(5), 4645-4654.
- ❖ Kurihara, K. and Suzuki, K. (2002) Theoretical understanding of an absorption-based surface plasmon resonance sensor based on Kretschmann's theory. Analytical chemistry 74(3), 696-701.
- ❖ Lakshman Kumar, D., Siva Sankar, S., Venkatesh, P. and Hepcy Kalarani, D. (2016) Green synthesis of silver nanoparticles using aerial parts extract of *Echinochloa colona* and their characterization. European Journal Of Pharmaceutical Medical Research 3(4), 325-328.
- ❖ Landau, L. and Lifshitz, E. (1982) Elektrodinamika sploshnykh sred (Electrodynamics of Continuous Media), Moscow: Nauka.
- ❖ Lau, P., Bidin, N., Islam, S., Shukri, W.N.B.W.M., Zakaria, N., Musa, N. and Krishnan, G. (2017) Influence of gold nanoparticles on wound healing treatment in rat model: Photobiomodulation therapy. Lasers in surgery and medicine 49(4), 380-386.
- ❖ Lau, P., Bidin, N., Islam, S., Shukri, W.N.B.W.M., Zakaria, N., Musa, N. and Krishnan, G. (2017) Influence of gold nanoparticles on wound healing treatment in rat model: Photobiomodulation therapy. Lasers in surgery and medicine 49(4), 380-386.
- ❖ Laurent, S., Forge, D., Port, M., Roch, A., Robic, C., Vander Elst, L. and Muller, R.N. (2008) Magnetic iron oxide nanoparticles: synthesis, stabilization, vectorization, physicochemical characterizations, and biological applications. Chemical reviews 108(6), 2064-2110.
- ❖ Lee, S.A., You, G.R., Choi, Y.W., Jo, H.Y., Kim, A.R., Noh, I., Kim, S.-J., Kim, Y. and Kim, C. (2014) A new multifunctional Schiff base as a fluorescence sensor for Al 3+ and a colorimetric sensor for CN- in aqueous media: an application to bioimaging. Dalton Transactions 43(18), 6650-6659.
- ❖ Lee, S.Y., Krishnamurthy, S., Cho, C.-W. and Yun, Y.-S. (2016) Biosynthesis of gold nanoparticles using *Ocimum sanctum* extracts by solvents with different polarity. ACS Sustainable Chemistry & Engineering 4(5), 2651-2659.
- ❖ Lei, W., Dürkop, A., Lin, Z., Wu, M. and Wolfbeis, O.S. (2003) Detection of hydrogen peroxide in river water via a microplate luminescence assay with time-resolved ("gated") detection. Microchimica Acta 143(4), 269-274.
- ❖ Li, J., Zhang, Z., Xu, S., Chen, L., Zhou, N., Xiong, H. and Peng, H. (2011) Label-free colorimetric detection of trace cholesterol based on molecularly imprinted photonic hydrogels. Journal of Materials Chemistry 21(48), 19267-19274.
- ❖ Li, R., Xiong, C., Xiao, Z. and Ling, L. (2012) Colorimetric detection of cholesterol with G-quadruplex-based DNAzymes and ABTS 2-. Analytica chimica acta 724, 80-85.
- ❖ Li, Y., Wang, Z., Li, X., Yin, T., Bian, K., Gao, F. and Gao, D. (2017) Facile synthesis of bacitracin-templated palladium nanoparticles with superior electrocatalytic activity. Journal of Power Sources 341, 183-191.
- ❖ Liang, M., Su, R., Huang, R., Qi, W., Yu, Y., Wang, L. and He, Z. (2014) Facile in situ synthesis of silver nanoparticles on procyanidin-grafted eggshell membrane and their catalytic properties. ACS applied materials & interfaces 6(7), 4638-4649.
- ❖ Lin, J.H., He, C.Y., Zhao, Y. and Zhang, S.S. (2009) One-step synthesis of silver nanoparticles/carbon nanotubes/chitosan film and its application in glucose biosensor. Sensors and Actuators B-Chemical 137(2), 768-773.
- ❖ Lin, T., Zhong, L., Chen, H., Li, Z., Song, Z., Guo, L. and Fu, F. (2017) A sensitive colorimetric assay for cholesterol based on the peroxidase-like activity of MoS₂ nanosheets. Microchimica Acta 184(4), 1233-1237.
- ❖ Lin, X.-Q., Deng, H.-H., Wu, G.-W., Peng, H.-P., Liu, A.-L., Lin, X.-H., Xia, X.-H. and Chen, W. (2015) Platinum nanoparticles/graphene-oxide hybrid with excellent peroxidase-like activity and its application for cysteine detection. Analyst 140(15), 5251-5256.
- ❖ Lin, Z., Wu, J., Xue, R. and Yang, Y. (2005) Spectroscopic characterization of Au³⁺ biosorption by waste biomass of *Saccharomyces cerevisiae*. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 61(4), 761-765.

- ❖ Liu, H., Lian, T., Liu, Y., Hong, Y., Sun, D. and Li, Q. (2017) Plant-mediated synthesis of Au nanoparticles: Separation and identification of active biomolecule in the water extract of *Cacumen platycladi*. Industrial & Engineering Chemistry Research 56(18), 5262-5270.
- ❖ Liu, H., Mu, L., Chen, X., Wang, J., Wang, S. and Sun, B. (2017) Optical Determination of Cholesterol in Milk with Molecularly Imprinted Polymer-Coated Quantum Dots. Analytical Letters (just-accepted).
- ❖ Liu, M., Zhao, H., Chen, S., Yu, H. and Quan, X. (2012a) Interface engineering catalytic graphene for smart colorimetric biosensing. ACS nano 6(4), 3142-3151.
- ❖ Liu, M., Zhao, H., Chen, S., Yu, H. and Quan, X. (2012b) Stimuli-responsive peroxidase mimicking at a smart graphene interface. Chemical communications 48(56), 7055-7057.
- ❖ Liu, S., Tian, J., Wang, L., Li, H., Zhang, Y. and Sun, X. (2010) Stable aqueous dispersion of graphene nanosheets: noncovalent functionalization by a polymeric reducing agent and their subsequent decoration with Ag nanoparticles for enzymeless hydrogen peroxide detection. Macromolecules 43(23), 10078-10083.
- ❖ Lok, C.-N., Ho, C.-M., Chen, R., He, Q.-Y., Yu, W.-Y., Sun, H., Tam, P.K.-H., Chiu, J.-F. and Che, C.-M. (2007) Silver nanoparticles: partial oxidation and antibacterial activities. JBIC Journal of Biological Inorganic Chemistry 12(4), 527-534.
- ❖ Lok, C.-N., Ho, C.-M., Chen, R., Tam, P.K.-H., Chiu, J.-F. and Che, C.-M. (2008) Proteomic identification of the Cus system as a major determinant of constitutive *Escherichia coli* silver resistance of chromosomal origin. Journal of proteome research 7(6), 2351-2356.
- ❖ Long, Y., Wang, X., Shen, D. and Zheng, H. (2016) Detection of glucose based on the peroxidase-like activity of reduced state carbon dots. Talanta 159, 122-126.
- ❖ Lorestani, F., Shahnavaz, Z., Mn, P., Alias, Y. and Manan, N.S. (2015b) One-step hydrothermal green synthesis of silver nanoparticle-carbon nanotube reduced-graphene oxide composite and its application as hydrogen peroxide sensor. Sensors and Actuators B: Chemical 208, 389-398.
- ❖ Lorestani, F., Shahnavaz, Z., Nia, P.M., Alias, Y. and Manan, N.S. (2015a) One-step preparation of silver-polyaniline nanotube composite for non-enzymatic hydrogen peroxide detection. Applied Surface Science 347, 816-823.
- ❖ Itamura, S. and Muckenthaler, M.U. (2009) Iron toxicity in diseases of aging: Alzheimer's disease, Parkinson's disease and atherosclerosis. Journal of Alzheimer's Disease 16(4), 879-895.
- ❖ Lu, B., Lu, F., Zou, Y., Liu, J., Rong, B., Li, Z., Dai, F., Wu, D. and Lan, G. (2017) In situ reduction of silver nanoparticles by chitosan-l-glutamic acid/hyaluronic acid: enhancing antimicrobial and wound-healing activity. Carbohydrate polymers.
- ❖ Lu, B., Lu, F., Zou, Y., Liu, J., Rong, B., Li, Z., Dai, F., Wu, D. and Lan, G. (2017) In situ reduction of silver nanoparticles by chitosan-l-glutamic acid/hyaluronic acid: enhancing antimicrobial and wound-healing activity. Carbohydrate polymers.
- ❖ Lu, L., Sun, R., Chen, R., Hui, C.-K., Ho, C.-M., Luk, J.M., Lau, G. and Che, C.-M. (2008) Silver nanoparticles inhibit hepatitis B virus replication. Antiviral therapy 13(2), 253.
- ❖ Lu, L., Sun, R., Chen, R., Hui, C.-K., Ho, C.-M., Luk, J.M., Lau, G. and Che, C.-M. (2008) Silver nanoparticles inhibit hepatitis B virus replication. Antiviral therapy 13(2), 253.
- ❖ Lu, P.-J., Huang, S.-C., Chen, Y.-P., Chiueh, L.-C. and Shih, D.Y.-C. (2015) Analysis of titanium dioxide and zinc oxide nanoparticles in cosmetics. journal of food and drug analysis 23(3), 587-594.
- ❖ Lu, S.C. (2009) Regulation of glutathione synthesis. Molecular aspects of medicine 30(1), 42-59.
- ❖ Ma, Y.-T., Huang, M.-C., Hsu, F.-L. and Chang, H.-F. (1998) Thiazinedione from *Xanthium strumarium*. Phytochemistry 48(6), 1083-1085.
- ❖ Ma, Y.-T., Huang, M.-C., Hsu, F.-L. and Chang, H.-F. (1998) Thiazinedione from *Xanthium strumarium*. Phytochemistry 48(6), 1083-1085.
- ❖ Madhiyazhagan, P., Murugan, K., Kumar, A.N., Nataraj, T., Dinesh, D., Panneerselvam, C., Subramaniam, J., Kumar, P.M., Suresh, U. and Roni, M. (2015) Sargassum muticum-synthesized silver nanoparticles: an effective control tool against mosquito vectors and bacterial pathogens. Parasitology research 114(11), 4305-4317.
- ❖ Mahdieh, M., Zolanvari, A. and Azimee, A. (2012) Green biosynthesis of silver nanoparticles by *Spirulina platensis*. Scientia Iranica 19(3), 926-929.
- ❖ Mahmoudian, M., Alias, Y., Basirun, W., Woi, P.M. and Yousefi, R. (2014) Synthesis of Polypyrrole coated silver nanostrip bundles and their application for detection of hydrogen peroxide. Journal of The Electrochemical Society 161(9), H487-H492.
- ❖ Maier, S.A. (2007) Plasmonics: fundamentals and applications, Springer Science & Business Media.
- ❖ Majumdar, R., Bag, B.G. and Ghosh, P. (2016) *Mimusops elengi* bark extract mediated green synthesis of gold nanoparticles and study of its catalytic activity. Applied Nanoscience 6(4), 521-528.
- ❖ Malarkodi, C., Rajeshkumar, S., Paulkumar, K., Vanaja, M., Jobitha, G.D.G. and Annadurai, G. (2013) Bactericidal activity of bio mediated silver nanoparticles synthesized by *Serratia nematodiphila*. Drug Invention Today 5(2), 119-125.
- ❖ Malhotra, A., Dolma, K., Kaur, N., Rathore, Y.S., Mayilraj, S. and Choudhury, A.R. (2013) Biosynthesis of gold and silver nanoparticles using a novel marine strain of *Stenotrophomonas*. Bioresource technology 142, 727-731.

- ❖ Maliszewska, I., Juraszek, A. and Bielska, K. (2014) Green synthesis and characterization of silver nanoparticles using ascomycota fungi *Penicillium nalgioense* AJ12. Journal of Cluster Science 25(4), 989-1004.
- ❖ Mandal, D., Bolander, M.E., Mukhopadhyay, D., Sarkar, G. and Mukherjee, P. (2006) The use of microorganisms for the formation of metal nanoparticles and their application. Applied microbiology and biotechnology 69(5), 485-492.
- ❖ Mandal, S., Gole, A., Lala, N., Gonnade, R., Ganvir, V. and Sastry, M. (2001) Studies on the reversible aggregation of cysteine-capped colloidal silver particles interconnected via hydrogen bonds. Langmuir 17(20), 6262-6268.
- ❖ Manikprabhu, D. and Lingappa, K. (2013) Antibacterial activity of silver nanoparticles against methicillin-resistant *Staphylococcus aureus* synthesized using model *Streptomyces* sp. pigment by photo-irradiation method. Journal of Pharmacy Research 6(2), 255-260.
- ❖ Manivasagan, P., Venkatesan, J., Senthilkumar, K., Sivakumar, K. and Kim, S.-K. (2013) Biosynthesis, antimicrobial and cytotoxic effect of silver nanoparticles using a novel *Nocardiopsis* sp. MBRC-1. BioMed research international 2013.
- ❖ Mata, Y., Torres, E., Blazquez, M., Ballester, A., González, F. and Munoz, J. (2009) Gold (III) biosorption and bioreduction with the brown alga *Fucus vesiculosus*. Journal of Hazardous Materials 166(2), 612-618.
- ❖ Mathur, M. (2014) International journal of pure & applied bioscience. Int. J. Pure App. Biosci 2(2), 113-130.
- ❖ Mathur, M. (2014) Properties of phyo-reducing agents utilize for production of nano-particles, existing knowledge and gaps. Int. J. Pure App. Biosci 2, 113-130.
- ❖ McDonnell, G. and Russell, A.D. (1999) Antiseptics and disinfectants: activity, action, and resistance. Clinical microbiology reviews 12(1), 147-179.
- ❖ Mishra, A., Kumari, M., Pandey, S., Chaudhry, V., Gupta, K. and Nautiyal, C. (2014) Biocatalytic and antimicrobial activities of gold nanoparticles synthesized by *Trichoderma* sp. Bioresource technology 166, 235-242.
- ❖ Mishra, A., Tripathy, S.K., Wahab, R., Jeong, S.-H., Hwang, I., Yang, Y.-B., Kim, Y.-S., Shin, H.-S. and Yun, S.-I. (2011) Microbial synthesis of gold nanoparticles using the fungus *Penicillium brevicompactum* and their cytotoxic effects against mouse mayo blast cancer C2C12 cells. Applied microbiology and biotechnology 92(3), 617-630.
- ❖ Mishra, A.N., Bhaduria, S., Gaur, M.S. and Pasricha, R. (2010) Extracellular microbial synthesis of gold nanoparticles using fungus *Hormoconis resinae*. JOM 62(11), 45-48.
- ❖ Mishra, P., Ray, S., Sinha, S., Das, B., Khan, M.I., Behera, S.K., Yun, S.-I., Tripathy, S.K. and Mishra, A. (2016) Facile bio-synthesis of gold nanoparticles by using extract of *Hibiscus sabdariffa* and evaluation of its cytotoxicity against U87 glioblastoma cells under hyperglycemic condition. Biochemical Engineering Journal 105, 264-272.
- ❖ Mock, J., Barbic, M., Smith, D., Schultz, D. and Schultz, S. (2002) Shape effects in plasmon resonance of individual colloidal silver nanoparticles. The Journal of Chemical Physics 116(15), 6755-6759.
- ❖ Mohamed, N.H., Ismail, M.A., Abdel-Mageed, W.M. and Shoreit, A.A.M. (2014) Antimicrobial activity of latex silver nanoparticles using *Calotropis procera*. Asian Pacific Journal of Tropical Biomedicine 4(11), 876-883.
- ❖ Mohammadi, S., Pourseyedi, S. and Amini, A. (2016) Green synthesis of silver nanoparticles with a long lasting stability using colloidal solution of cowpea seeds (*Vigna* sp. L). Journal of Environmental Chemical Engineering 4(2), 2023-2032.
- ❖ Mohan, S., Kumar, V., Singh, D.K. and Hasan, S.H. (2016) Synthesis and characterization of rGO/ZrO₂ nanocomposite for enhanced removal of fluoride from water: kinetics, isotherm, and thermodynamic modeling and its adsorption mechanism. RSC Advances 6(90), 87523-87538.
- ❖ Mokhtari, N., Daneshpajouh, S., Seyedbagheri, S., Atashdehghan, R., Abdi, K., Sarkar, S., Minaian, S., Shahverdi, H.R. and Shahverdi, A.R. (2009) Biological synthesis of very small silver nanoparticles by culture supernatant of *Klebsiella pneumoniae*: The effects of visible-light irradiation and the liquid mixing process. Materials Research Bulletin 44(6), 1415-1421.
- ❖ Moldovan, B., David, L., Vulcu, A., Olenic, L., Perde-Schrepler, M., Fischer-Fodor, E., Baldea, I., Clichici, S. and Filip, G.A. (2017) In vitro and in vivo anti-inflammatory properties of green synthesized silver nanoparticles using *Viburnum opulus* L. fruits extract. Materials Science and Engineering: C 79, 720-727.
- ❖ Mondal, S., Roy, N., Laskar, R.A., Sk, I., Basu, S., Mandal, D. and Begum, N.A. (2011) Biogenic synthesis of Ag, Au and bimetallic Au/Ag alloy nanoparticles using aqueous extract of mahogany (*Swietenia mahogani* JACQ.) leaves. Colloids and Surfaces B: Biointerfaces 82(2), 497-504.
- ❖ Moon, K.-S., Dong, H., Maric, R., Pothukuchi, S., Hunt, A., Li, Y. and Wong, C. (2005) Thermal behavior of silver nanoparticles for low-temperature interconnect applications. Journal of Electronic Materials 34(2), 168-175.
- ❖ Mosae Selvakumar, P., Antonyraj, C.A., Babu, R., Dakhsinamurthy, A., Manikandan, N. and Palanivel, A. (2016) Green synthesis and antimicrobial activity of monodispersed silver nanoparticles synthesized using lemon extract. Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry 46(2), 291-294.
- ❖ Mu, J., Zhang, L., Zhao, M. and Wang, Y. (2013) Co₃O₄ nanoparticles as an efficient catalase mimic: Properties, mechanism and its electrocatalytic sensing application for hydrogen peroxide. Journal of Molecular Catalysis A: Chemical 378, 30-37.

- ❖ MubarakAli, D., Thajuddin, N., Jeganathan, K. and Gunasekaran, M. (2011) Plant extract mediated synthesis of silver and gold nanoparticles and its antibacterial activity against clinically isolated pathogens. *Colloids and Surfaces B: Biointerfaces* 85(2), 360-365.
- ❖ Mude, N., Ingle, A., Gade, A. and Rai, M. (2009) Synthesis of silver nanoparticles using callus extract of *Carica papaya*—a first report. *Journal of Plant Biochemistry and Biotechnology* 18(1), 83-86.
- ❖ Mukherjee, P., Ahmad, A., Mandal, D., Senapati, S., Sainkar, S.R., Khan, M.I., Parishcha, R., Ajaykumar, P., Alam, M. and Kumar, R. (2001) Fungus-mediated synthesis of silver nanoparticles and their immobilization in the mycelial matrix: a novel biological approach to nanoparticle synthesis. *Nano Letters* 1(10), 515-519.
- ❖ Mukherjee, P., Senapati, S., Mandal, D., Ahmad, A., Khan, M.I., Kumar, R. and Sastry, M. (2002) Extracellular synthesis of gold nanoparticles by the fungus *Fusarium oxysporum*. *ChemBioChem* 3(5), 461-463.
- ❖ Mulvaney, P. (1996) Surface plasmon spectroscopy of nanosized metal particles. *Langmuir* 12(3), 788-800.
- ❖ Muniyappan, N. and Nagarajan, N. (2014) Green synthesis of gold nanoparticles using *Curcuma pseudomontana* essential oil, its biological activity and cytotoxicity against human ductal breast carcinoma cells T47D. *Journal of Environmental Chemical Engineering* 2(4), 2037-2044.
- ❖ Murugan, K., Aruna, P., Panneerselvam, C., Madhiyazhagan, P., Paulpandi, M., Subramaniam, J., Rajaganesh, R., Wei, H., Alsalhi, M.S. and Devanesan, S. (2016) Fighting arboviral diseases: low toxicity on mammalian cells, dengue growth inhibition (in vitro), and mosquitocidal activity of *Centroceras clavulatum*-synthesized silver nanoparticles. *Parasitology research* 115(2), 651-662.
- ❖ Murugan, K., Benelli, G., Panneerselvam, C., Subramaniam, J., Jeyalalitha, T., Dinesh, D., Nicoletti, M., Hwang, J.-S., Suresh, U. and Madhiyazhagan, P. (2015) Cymbopogon citratus-synthesized gold nanoparticles boost the predation efficiency of copepod *Mesocyclops aspericornis* against malaria and dengue mosquitoes. *Experimental parasitology* 153, 129-138.
- ❖ Muthukumar, T., Sambandam, B., Aravinthan, A., Sastry, T.P. and Kim, J.-H. (2016) Green synthesis of gold nanoparticles and their enhanced synergistic antitumor activity using HepG2 and MCF7 cells and its antibacterial effects. *Process Biochemistry* 51(3), 384-391.
- ❖ Mutyalu, S. and Mathiyarasu, J. (2016) A reagentless non-enzymatic hydrogen peroxide sensor presented using electrochemically reduced graphene oxide modified glassy carbon electrode. *Materials Science and Engineering: C* 69, 398-406.
- ❖ Nadagouda, M.N., Iyanna, N., Lalley, J., Han, C., Dionysiou, D.D. and Varma, R.S. (2014) Synthesis of silver and gold nanoparticles using antioxidants from blackberry, blueberry, pomegranate, and turmeric extracts. *ACS Sustainable Chemistry & Engineering* 2(7), 1717-1723.
- ❖ Nagababu, P. and Rao, V.U. (2017) Biosynthesis, Characterization and Antibacterial activity of Silver nanoparticles of *Excoecaria agallocha L.* fruit extract. *International Journal of Drug Delivery* 9(1).
- ❖ Naganuma, T. (2017) Shape design of cerium oxide nanoparticles for enhancement of enzyme mimetic activity in therapeutic applications. *Nano Research* 10(1), 199-217.
- ❖ Naik, R.R., Stringer, S.J., Agarwal, G., Jones, S.E. and Stone, M.O. (2002) Biomimetic synthesis and patterning of silver nanoparticles. *Nature materials* 1(3), 169.
- ❖ Nair, B. and Pradeep, T. (2002) Coalescence of nanoclusters and formation of submicron crystallites assisted by *Lactobacillus strains*. *Crystal Growth & Design* 2(4), 293-298.
- ❖ Nakano, Y., Takeshita, K. and Tsutsumi, T. (2001) Adsorption mechanism of hexavalent chromium by redox within condensed-tannin gel. *Water research* 35(2), 496-500.
- ❖ Nakkala, J.R., Mata, R. and Sadras, S.R. (2017) Green synthesized nano silver: Synthesis, physicochemical profiling, antibacterial, anticancer activities and biological in vivo toxicity. *Journal of colloid and interface science* 499, 33-45.
- ❖ Nakkala, J.R., Mata, R., Gupta, A.K. and Sadras, S.R. (2014) Biological activities of green silver nanoparticles synthesized with *Acorous calamus* rhizome extract. *European journal of medicinal chemistry* 85, 784-794.
- ❖ Nangia, Y., Wangoo, N., Goyal, N., Shekhawat, G. and Suri, C.R. (2009) A novel bacterial isolate *Stenotrophomonas maltophilia* as living factory for synthesis of gold nanoparticles. *Microbial cell factories* 8(1), 39.
- ❖ Nantaphol, S., Chailapakul, O. and Siangproh, W. (2015) Sensitive and selective electrochemical sensor using silver nanoparticles modified glassy carbon electrode for determination of cholesterol in bovine serum. *Sensors and Actuators B: Chemical* 207, 193-198.
- ❖ Naraginti, S. and Li, Y. (2017) Preliminary investigation of catalytic, antioxidant, anticancer and bactericidal activity of green synthesized silver and gold nanoparticles using *Actinidia deliciosa*. *Journal of Photochemistry and Photobiology B: Biology* 170, 225-234.
- ❖ Narayanan, K.B. and Park, H.H. (2014) Antifungal activity of silver nanoparticles synthesized using turnip leaf extract (*Brassica rapa L.*) against wood rotting pathogens. *European journal of plant pathology* 140(2), 185-192.
- ❖ Narayanan, K.B. and Sakthivel, N. (2008) Coriander leaf mediated biosynthesis of gold nanoparticles. *Materials Letters* 62(30), 4588-4590.
- ❖ Narayanan, K.B. and Sakthivel, N. (2011) Facile green synthesis of gold nanostructures by NADPH-dependent enzyme from the extract of *Sclerotium rolfsii*. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 380(1), 156-161.

- ❖ Nayak, D., Ashe, S., Rauta, P.R., Kumari, M. and Nayak, B. (2016) Bark extract mediated green synthesis of silver nanoparticles: evaluation of antimicrobial activity and antiproliferative response against osteosarcoma. Materials Science and Engineering: C 58, 44-52.
- ❖ Nayak, R.R., Pradhan, N., Behera, D., Pradhan, K.M., Mishra, S., Sukla, L.B. and Mishra, B.K. (2011) Green synthesis of silver nanoparticle by *Penicillium purpurogenum* NPMF: the process and optimization. Journal of Nanoparticle Research 13(8), 3129-3137.
- ❖ Nayak, S., Goveas, L.C. and Rao, C.V. (2017) Materials, Energy and Environment Engineering, pp. 257-265, Springer.
- ❖ Ndikau, M., Noah, N.M., Andala, D.M. and Masika, E. (2017) Green Synthesis and Characterization of Silver Nanoparticles Using *Citrullus lanatus* Fruit Rind Extract. International journal of analytical chemistry 2017.
- ❖ Ni, P., Sun, Y., Dai, H., Hu, J., Jiang, S., Wang, Y. and Li, Z. (2015) Highly sensitive and selective colorimetric detection of glutathione based on Ag [I] ion-3, 3', 5, 5'-tetramethylbenzidine (TMB). Biosensors and Bioelectronics 63, 47-52.
- ❖ Nia, P.M., Lorestani, F., Meng, W.P. and Alias, Y. (2015) A novel non-enzymatic H₂O₂ sensor based on polypyrrole nanofibers-silver nanoparticles decorated reduced graphene oxide nano composites. Applied Surface Science 332, 648-656.
- ❖ Niidome, T., Nakashima, K., Takahashi, H. and Niidome, Y. (2004) Preparation of primary amine-modified gold nanoparticles and their transfection ability into cultivated cells. Chemical communications (17), 1978-1979.
- ❖ Nirala, N.R., Abraham, S., Kumar, V., Bansal, A., Srivastava, A. and Saxena, P.S. (2015a) Colorimetric detection of cholesterol based on highly efficient peroxidase mimetic activity of graphene quantum dots. Sensors and Actuators B: Chemical 218, 42-50.
- ❖ Nirala, N.R., Pandey, S., Bansal, A., Singh, V.K., Mukherjee, B., Saxena, P.S. and Srivastava, A. (2015b) Different shades of cholesterol: gold nanoparticles supported on MoS₂ nanoribbons for enhanced colorimetric sensing of free cholesterol. Biosensors and Bioelectronics 74, 207-213.
- ❖ Noruzi, M., Zare, D. and Davoodi, D. (2012) A rapid biosynthesis route for the preparation of gold nanoparticles by aqueous extract of cypress leaves at room temperature. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 94, 84-88.
- ❖ Noruzi, M., Zare, D., Khoshnevisan, K. and Davoodi, D. (2011) Rapid green synthesis of gold nanoparticles using *Rosa hybrida* petal extract at room temperature. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 79(5), 1461-1465.
- ❖ Novoselov, K.S., Fal, V., Colombo, L., Gellert, P., Schwab, M. and Kim, K. (2012) A roadmap for graphene. Nature 490(7419), 192-200.
- ❖ Ojo, S.A., Lateef, A., Azeez, M.A., Oladejo, S.M., Akinwale, A.S., Asafa, T.B., Yekeen, T.A., Akinboro, A., Oladipo, I.C. and Gueguim-Kana, E.B. (2016) Biomedical and catalytic applications of gold and silver-gold alloy nanoparticles biosynthesized using cell-free extract of *Bacillus safensis* LAU 13: antifungal, dye degradation, anti-coagulant and thrombolytic activities. IEEE transactions on nanobioscience 15(5), 433-442.
- ❖ Oo, C.-W., Kassim, M.J. and Pizzi, A. (2009) Characterization and performance of *Rhizophora apiculata* mangrove polyflavonoid tannins in the adsorption of copper (II) and lead (II). Industrial Crops and Products 30(1), 152-161.
- ❖ Otari, S., Patil, R., Nadaf, N., Ghosh, S. and Pawar, S. (2012) Green biosynthesis of silver nanoparticles from an actinobacteria *Rhodococcus* sp. Materials Letters 72, 92-94.
- ❖ Ott, L.S. and Finke, R.G. (2007) Transition-metal nanocluster stabilization for catalysis: a critical review of ranking methods and putative stabilizers. Coordination Chemistry Reviews 251(9), 1075-1100.
- ❖ Oza, G., Pandey, S., Mewada, A., Kalita, G., Sharon, M., Phata, J., Ambernath, W. and Sharon, M. (2012) Facile biosynthesis of gold nanoparticles exploiting optimum pH and temperature of fresh water algae *Chlorella pyrenoidusa*. Adv Appl Sci Res 3(3), 1405-1412.
- ❖ Özkar, S. and Finke, R.G. (2002) Nanocluster formation and stabilization fundamental studies: ranking commonly employed anionic stabilizers via the development, then application, of five comparative criteria. Journal of the American Chemical Society 124(20), 5796-5810.
- ❖ P.M., Subramaniam, J., Dinesh, D. and Chandramohan, B. (2015) Tackling the growing threat of dengue: *Phyllanthus niruri*-mediated synthesis of silver nanoparticles and their mosquitocidal properties against the dengue vector *Aedes aegypti* (*Diptera: Culicidae*). Parasitology research 114(4), 1551-1562.
- ❖ Paciotti, G.F., Myer, L., Weinreich, D., Goia, D., Pavel, N., McLaughlin, R.E. and Tamarkin, L. (2004) Colloidal gold: a novel nanoparticle vector for tumor directed drug delivery. Drug delivery 11(3), 169-183.
- ❖ Padalia, H., Moteriya, P. and Chanda, S. (2015) Green synthesis of silver nanoparticles from marigold flower and its synergistic antimicrobial potential. Arabian Journal of Chemistry 8(5), 732-741.
- ❖ Pakrashi, S., Jain, N., Dalai, S., Jayakumar, J., Chandrasekaran, P.T., Raichur, A.M., Chandrasekaran, N. and Mukherjee, A. (2014) In vivo genotoxicity assessment of titanium dioxide nanoparticles by Allium cepa root tip assay at high exposure concentrations. PLoS One 9(2), e87789.
- ❖ Pal, A. and Pal, T. (1999) Silver nanoparticle aggregate formation by a photochemical method and its application to SERS analysis. Journal of Raman spectroscopy 30(3), 199-204.

- ❖ Parashar, V., Parashar, R., Sharma, B. and Pandey, A.C. (2009) Parthenium leaf extract mediated synthesis of silver nanoparticles: a novel approach towards weed utilization. Digest Journal of Nanomaterials & Biostructures (DJNB) 4(1).
- ❖ Parikh, R.Y., Singh, S., Prasad, B., Patole, M.S., Sastry, M. and Shouche, Y.S. (2008) Extracellular synthesis of crystalline silver nanoparticles and molecular evidence of silver resistance from *Morganella sp.*: towards understanding biochemical synthesis mechanism. ChemBioChem 9(9), 1415-1422.
- ❖ Park, G.J., You, G.R., Choi, Y.W. and Kim, C. (2016) A naked-eye chemosensor for simultaneous detection of iron and copper ions and its copper complex for colorimetric/fluorescent sensing of cyanide. Sensors and Actuators B: Chemical 229, 257-271.
- ❖ Parvathy, S., Vidhya, K., Evanjelene, V. and Venkatraman, B. (2014) Green Synthesis of Silver Nanoparticles Using *Albizia Lebbeck* (L.) Benth Extract and Evaluation of Its Antimicrobial Activity. ICAN 2, 501-505.
- ❖ Pasca, R.-D., Mocanu, A., Cobzac, S.-C., Petean, I., Horovitz, O. and Tomoaia-Cotisel, M. (2014) Biogenic syntheses of gold nanoparticles using plant extracts. Particulate Science and Technology 32(2), 131-137.
- ❖ Pastore, A., Federici, G., Bertini, E. and Piemonte, F. (2003) Analysis of glutathione: implication in redox and detoxification. Clinica chimica acta 333(1), 19-39.
- ❖ Pauksch, L., Hartmann, S., Rohnke, M., Szalay, G., Alt, V., Schnettler, R. and Lips, K.S. (2014) Biocompatibility of silver nanoparticles and silver ions in primary human mesenchymal stem cells and osteoblasts. Acta Biomaterialia 10(1), 439-449.
- ❖ Paul, B., Bhuyan, B., Purkayastha, D.D., Dey, M. and Dhar, S.S. (2015b) Green synthesis of gold nanoparticles using *Pogostemon benghalensis* (B) O. Kt. leaf extract and studies of their photocatalytic activity in degradation of methylene blue. Materials Letters 148, 37-40.
- ❖ Paul, J.A.J., Selvi, B.K. and Karmegam, N. (2015a) Biosynthesis of silver nanoparticles from Premna serratifolia L. leaf and its anticancer activity in CCl₄-induced hepato-cancerous Swiss albino mice. Applied Nanoscience 5(8), 937-944.
- ❖ Paulkumar, K., Gnanajobitha, G., Vanaja, M., Rajeshkumar, S., Malarkodi, C., Pandian, K. and Annadurai, G. (2014) *Piper nigrum* leaf and stem assisted green synthesis of silver nanoparticles and evaluation of its antibacterial activity against agricultural plant pathogens. The Scientific World Journal 2014.
- ❖ Pei, X., Qu, Y., Shen, W., Li, H., Zhang, X., Li, S., Zhang, Z. and Li, X. (2017) Green synthesis of gold nanoparticles using fungus *Mariannaea sp.* HJ and their catalysis in reduction of 4-nitrophenol. Environmental Science and Pollution Research, 1-11.
- ❖ Peng, Z. and Yang, H. (2009) Designer platinum nanoparticles: Control of shape, composition in alloy, nanostructure and electrocatalytic property. Nano Today 4(2), 143-164.
- ❖ Pethakamsetty, L., Kothapenta, K., Nammi, H.R., Ruddaraju, L.K., Kollu, P., Yoon, S.G. and Pammi, S.V.N. (2017) Green synthesis, characterization and antimicrobial activity of silver nanoparticles using methanolic root extracts of *Diospyros sylvatica*. Journal of Environmental Sciences 55, 157-163.
- ❖ Philip, D. (2010) Rapid green synthesis of spherical gold nanoparticles using *Mangifera indica* leaf. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 77(4), 807-810.
- ❖ Philip, D. (2010b) Green synthesis of gold and silver nanoparticles using *Hibiscus rosa sinensis*. Physica E: Low-dimensional Systems and Nanostructures 42(5), 1417-1424.
- ❖ Philip, D. and Unni, C. (2011) Extracellular biosynthesis of gold and silver nanoparticles using Krishna tulsi (*Ocimum sanctum*) leaf. Physica E: Low-dimensional Systems and Nanostructures 43(7), 1318-1322.
- ❖ Philip, D., Unni, C., Aromal, S.A. and Vidhu, V. (2011) *Murraya koenigii* leaf-assisted rapid green synthesis of silver and gold nanoparticles. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 78(2), 899-904.
- ❖ Pick, E. and Mizel, D. (1981) Rapid microassays for the measurement of superoxide and hydrogen peroxide production by macrophages in culture using an automatic enzyme immunoassay reader. Journal of immunological methods 46(2), 211-226.
- ❖ Pogacean, F., Socaci, C., Pruneanu, S., Biris, A.R., Coros, M., Magerusan, L., Katona, G., Turcu, R. and Borodi, G. (2015) Graphene based nanomaterials as chemical sensors for hydrogen peroxide—a comparison study of their intrinsic peroxidase catalytic behavior. Sensors and Actuators B: Chemical 213, 474-483.
- ❖ Pokhrel, L.R., Ettore, N., Jacobs, Z.L., Zarr, A., Weir, M.H., Scheuerman, P.R., Kanel, S.R. and Dubey, B. (2017) Novel carbon nanotube (CNT)-based ultrasensitive sensors for trace mercury (II) detection in water: A review. Science of The Total Environment 574, 1379-1388.
- ❖ Pourmortazavi, S.M., Taghdiri, M., Makari, V., Rahimi-Nasrabadi, M. and Batooli, H. (2017) Reducing power of *Eucalyptus oleosa* leaf extracts and green synthesis of gold nanoparticles using the extract. International Journal of Food Properties 20(5), 1097-1103.
- ❖ Powers, C.M., Badireddy, A.R., Ryde, I.T., Seidler, F.J. and Slotkin, T.A. (2011) Silver nanoparticles compromise neurodevelopment in PC12 cells: critical contributions of silver ion, particle size, coating, and composition. Environmental health perspectives 119(1), 37.
- ❖ Praba, P.S., Jeyasundari, J. and Jacob, Y.B.A. (2014) Synthesis of silver nano particles using piper betle and its antibacterial activity. European Chemical Bulletin 3(10-12), 1014-1016.

- ❖ Prakash, P., Gnanaprakasam, P., Emmanuel, R., Arokiyaraj, S. and Saravanan, M. (2013) Green synthesis of silver nanoparticles from leaf extract of *Mimusops elengi*, Linn. for enhanced antibacterial activity against multi drug resistant clinical isolates. *Colloids and Surfaces B: Biointerfaces* 108, 255-259.
- ❖ Prakasham, R.S., Buddana, S., Yannam, S. and Guntuku, G. (2012) Characterization of silver nanoparticles synthesized by using marine isolate *Streptomyces albidoflavus*. *J Microbiol Biotechnol* 22(5), 614-621.
- ❖ Prasad, T. and Elumalai, E. (2011) Biofabrication of Ag nanoparticles using *Moringa oleifera* leaf extract and their antimicrobial activity. *Asian Pacific Journal of Tropical Biomedicine* 1(6), 439-442.
- ❖ Prasad, T.N., Kambala, V.S.R. and Naidu, R. (2013) Phyconanotechnology: synthesis of silver nanoparticles using brown marine algae *Cystophora moniliformis* and their characterisation. *Journal of applied phycology* 25(1), 177-182.
- ❖ Prathna, T., Chandrasekaran, N., Raichur, A.M. and Mukherjee, A. (2011) Biomimetic synthesis of silver nanoparticles by *Citrus limon* (lemon) aqueous extract and theoretical prediction of particle size. *Colloids and Surfaces B: Biointerfaces* 82(1), 152-159.
- ❖ Puddephatt, R. and Vittal, J. (1994) Gold: inorganic & coordination chemistry. *Encyclopedia of inorganic chemistry* 3, 1320-1331.
- ❖ Puddephatt, R.J. (1978) The chemistry of gold, Elsevier Scientific Pub. Co.; distributors for the US and Canada Elsevier/North-Holland.
- ❖ Pyykö, P. (2004) Theoretical chemistry of gold. *Angewandte chemie international edition* 43(34), 4412-4456.
- ❖ Qian, J., Yang, X., Yang, Z., Zhu, G., Mao, H. and Wang, K. (2015) Multiwalled carbon nanotube@ reduced graphene oxide nanoribbon heterostructure: synthesis, intrinsic peroxidase-like catalytic activity, and its application in colorimetric biosensing. *Journal of Materials Chemistry B* 3(8), 1624-1632.
- ❖ Qiao, R., Yang, C. and Gao, M. (2009) Superparamagnetic iron oxide nanoparticles: from preparations to in vivo MRI applications. *Journal of Materials Chemistry* 19(35), 6274-6293.
- ❖ Qin, X.L., Lan, D.M., Zhong, J.F., Liu, L., Wang, Y.H. and Yang, B. (2014) Fatty acid specificity of T1 lipase and its potential in acylglycerol synthesis. *Journal of the Science of Food and Agriculture* 94(8), 1614-1621.
- ❖ Qin, X.L., Lan, D.M., Zhong, J.F., Liu, L., Wang, Y.H. and Yang, B. (2014) Fatty acid specificity of T1 lipase and its potential in acylglycerol synthesis. *Journal of the Science of Food and Agriculture* 94(8), 1614-1621.
- ❖ Quaresma, P., Soares, L., Contar, L., Miranda, A., Osório, I., Carvalho, P.A., Franco, R. and Pereira, E. (2009) Green photocatalytic synthesis of stable Au and Ag nanoparticles. *Green Chemistry* 11(11), 1889-1893.
- ❖ Ragunandan, D., Basavaraja, S., Mahesh, B., Balaji, S., Manjunath, S. and Venkataraman, A. (2009) Biosynthesis of stable polyshaped gold nanoparticles from microwave-exposed aqueous extracellular antimalignant guava (*Psidium guajava*) leaf extract. *Nanobiotechnology* 5(1-4), 34-41.
- ❖ Rahban, M., Divsalar, A., Saboury, A.A. and Golestani, A. (2010) Nanotoxicity and spectroscopy studies of silver nanoparticle: Calf thymus DNA and K562 as targets. *The Journal of Physical Chemistry C* 114(13), 5798-5803.
- ❖ Rahimi, Z., Yousefzadi, M., Noori, A. and Akbarzadeh, A. (2014a) Green Synthesis of Silver Nanoparticles using *Ulva flexiosa* from the Persian Gulf, Iran. *Journal of the Persian Gulf* 5(15), 9-16.
- ❖ Rahimi-Nasrabadi, M., Pourmortazavi, S.M., Shandiz, S.A.S., Ahmadi, F. and Batooli, H. (2014) Green synthesis of silver nanoparticles using *Eucalyptus leucoxylon* leaves extract and evaluating the antioxidant activities of extract. *Natural product research* 28(22), 1964-1969.
- ❖ Raja, S., Ramesh, V. and Thivaharan, V. (2015) Green biosynthesis of silver nanoparticles using *Calliandra haematocephala* leaf extract, their antibacterial activity and hydrogen peroxide sensing capability. *Arabian Journal of Chemistry*.
- ❖ Rajagopal, T., Jemimah, I.A.A., Ponmanickam, P. and Ayyanar, M. (2015) Synthesis of silver nanoparticles using *Catharanthus roseus* root extract and its larvicidal effects. *Journal of environmental biology* 36(6), 1283.
- ❖ Rajan, A., MeenaKumari, M. and Philip, D. (2014) Shape tailored green synthesis and catalytic properties of gold nanocrystals. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 118, 793-799.
- ❖ Rajan, A., Rajan, A.R. and Philip, D. (2017) *Elettaria cardamomum* seed mediated rapid synthesis of gold nanoparticles and its biological activities. *OpenNano* 2, 1-8.
- ❖ Rajathi, F.A.A., Parthiban, C., Kumar, V.G. and Anantharaman, P. (2012) Biosynthesis of antibacterial gold nanoparticles using brown alga, *Stoechospermum marginatum* (kützing). *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 99, 166-173.
- ❖ Rajeshkumar, S., Kannan, C. and Annadurai, G. (2012) Green synthesis of silver nanoparticles using marine brown algae *Turbinaria conoides* and its antibacterial activity. *International Journal of Pharma and Bio Sciences* 3(4), 502-510.
- ❖ Rajeshkumar, S., Malarkodi, C., Paulkumar, K., Vanaja, M., Gnanajobitha, G. and Annadurai, G. (2014) Algae mediated green fabrication of silver nanoparticles and examination of its antifungal activity against clinical pathogens. *International journal of Metals* 2014.
- ❖ Rajeshkumar, S., Malarkodi, C., Vanaja, M., Gnanajobitha, G., Paulkumar, K., Kannan, C. and Annadurai, G. (2013) Antibacterial activity of algae mediated synthesis of gold nanoparticles from *Turbinaria conoides*. *Der Pharma Chemica* 5(2), 224-229.

- ❖ Ramachandran, K., Kalpana, D., Sathishkumar, Y., Lee, Y.S. and Ravichandran, K. (2016) A facile green synthesis of silver nanoparticles using Piper betle biomass and its catalytic activity toward sensitive and selective nitrite detection. *Journal of Industrial and Engineering Chemistry* 35, 29-35.
- ❖ Ramachandran, R., Krishnaraj, C., Sivakumar, A.S., Prasannakumar, P., Kumar, V.A., Shim, K.S., Song, C.-G. and Yun, S.-I. (2017) Anticancer activity of biologically synthesized silver and gold nanoparticles on mouse myoblast cancer cells and their toxicity against embryonic zebrafish. *Materials Science and Engineering: C* 73, 674-683.
- ❖ Ramezani, N., Ehsanfar, Z., Shamsa, F., Amin, G., Shahverdi, H.R., Esfahani, H.R.M., Shamsae, A., Bazaz, R.D. and Shahverdi, A.R. (2008) Screening of medicinal plant methanol extracts for the synthesis of gold nanoparticles by their reducing potential. *Zeitschrift für Naturforschung B* 63(7), 903-908.
- ❖ Rao, K.J. and Paria, S. (2013) Green synthesis of silver nanoparticles from aqueous *Aegle marmelos* leaf extract. *Materials Research Bulletin* 48(2), 628-634.
- ❖ Raut, R.W., Kolekar, N.S., Lakkakula, J.R., Mendulkar, V.D. and Kashid, S.B. (2010) Extracellular synthesis of silver nanoparticles using dried leaves of *Pongamia pinnata* (L) pierre. *Nano-Micro Letters* 2(2), 106-113.
- ❖ Ravichandran, V., Vasanthi, S., Shalini, S., Shah, S.A.A. and Harish, R. (2016) Green synthesis of silver nanoparticles using *Atrocarpus aitilis* leaf extract and the study of their antimicrobial and antioxidant activity. *Materials Letters* 180, 264-267.
- ❖ Ravindra, S., Mohan, Y.M., Reddy, N.N. and Raju, K.M. (2010) Fabrication of antibacterial cotton fibres loaded with silver nanoparticles via "Green Approach". *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 367(1), 31-40.
- ❖ Ravindra, S., Mulaba-Bafubiandi, A.F., Rajinikanth, V., Varaprasad, K., Reddy, N.N. and Raju, K.M. (2012) Development and characterization of curcumin loaded silver nanoparticle hydrogels for antibacterial and drug delivery applications. *Journal of Inorganic and Organometallic Polymers and Materials* 22(6), 1254-1262.
- ❖ Ravindran, A., Singh, A., Raichur, A.M., Chandrasekaran, N. and Mukherjee, A. (2010) Studies on interaction of colloidal Ag nanoparticles with *bovine serum albumin* (BSA). *Colloids and Surfaces B: Biointerfaces* 76(1), 32-37.
- ❖ Reddy, K.R. (1988) Folk medicine from Chittoor District, Andhra Pradesh, India, used in the treatment of jaundice. *International Journal of crude drug research* 26(3), 137-140.
- ❖ Reddy, K.R. (1988) Folk medicine from Chittoor District, Andhra Pradesh, India, used in the treatment of jaundice. *International Journal of crude drug research* 26(3), 137-140.
- ❖ Reddy, V., Torati, R.S., Oh, S. and Kim, C. (2012) Biosynthesis of gold nanoparticles assisted by *Sapindus mukorossi Gaertn.* Fruit pericarp and their catalytic application for the reduction of p-nitroaniline. *Industrial & Engineering Chemistry Research* 52(2), 556-564.
- ❖ Ribeiro, M., Ferraz, M.P., Monteiro, F.J., Fernandes, M.H., Beppu, M.M., Mantione, D. and Sardon, H. (2017) Antibacterial silk fibroin/nanohydroxyapatite hydrogels with silver and gold nanoparticles for bone regeneration. *Nanomedicine: Nanotechnology, Biology and Medicine* 13(1), 231-239.
- ❖ Rodríguez-León, E., Iñiguez-Palomares, R., Navarro, R.E., Herrera-Urbina, R., Tánori, J., Iñiguez-Palomares, C. and Maldonado, A. (2013) Synthesis of silver nanoparticles using reducing agents obtained from natural sources (*Rumex hymenosepalus* extracts). *Nanoscale research letters* 8(1), 318.
- ❖ Rokade, A.A., Kim, J.H., Lim, S.R., Yoo, S.I., Jin, Y.E. and Park, S.S. (2017) A Novel Green Synthesis of Silver Nanoparticles Using *Rubus crataegifolius* Bge Fruit Extract. *Journal of Cluster Science* 28(4).
- ❖ Roni, M., Murugan, K., Panneerselvam, C., Subramaniam, J., Nicoletti, M., Madhiyazhagan, P., Dinesh, D., Suresh, U., Khater, H.F. and Wei, H. (2015) Characterization and biotoxicity of Hypnea musciformis-synthesized silver nanoparticles as potential eco-friendly control tool against *Aedes aegypti* and *Plutella xylostella*. *Ecotoxicology and environmental safety* 121, 31-38.
- ❖ Roy, N. and Barik, A. (2010) Green synthesis of silver nanoparticles from the unexploited weed resources. *International Journal of Nanotechnology and Applications* 4(2), 95-101.
- ❖ Roychoudhury, P. and Pal, R. (2014) *Spirogyra submaxima*-a green alga for nanogold production. *J Algal Biomass Utln* 5(1), 15-19.
- ❖ Russell, A. (1999) Bacterial resistance to disinfectants: present knowledge and future problems. *Journal of Hospital Infection* 43, S57-S68.
- ❖ Rycenga, M., Cobley, C.M., Zeng, J., Li, W., Moran, C.H., Zhang, Q., Qin, D. and Xia, Y. (2011) Controlling the synthesis and assembly of silver nanostructures for plasmonic applications. *Chemical reviews* 111(6), 3669-3712.
- ❖ Sadeghi, B. and Gholamhosseinpoor, F. (2015) A study on the stability and green synthesis of silver nanoparticles using *Ziziphora tenuior* (Zt) extract at room temperature. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 134, 310-315.
- ❖ Sadeghi, B., Mohammadzadeh, M. and Babakhani, B. (2015) Green synthesis of gold nanoparticles using Stevia rebaudiana leaf extracts: characterization and their stability. *Journal of Photochemistry and Photobiology B: Biology* 148, 101-106.
- ❖ Saggoo, M.I.S., Walia, S. and Kaur, R. (2010) Evaluation of genotoxic and antimicrobial potential of *Croton bonplandianum* Baill. *Archives of Applied Science Research* 2(2), 211-216.

- ❖ Saggoo, M.I.S., Walia, S. and Kaur, R. (2010) Evaluation of genotoxic and antimicrobial potential of Croton bonplandianum Baill. Archives of Applied Science Research 2(2), 211-216.
- ❖ Saha, J., Begum, A., Mukherjee, A. and Kumar, S. (2017) A novel green synthesis of silver nanoparticles and their catalytic action in reduction of Methylene Blue dye. Sustainable Environment Research.
- ❖ Saha, K., Agasti, S.S., Kim, C., Li, X. and Rotello, V.M. (2012) Gold nanoparticles in chemical and biological sensing. Chemical reviews 112(5), 2739-2779.
- ❖ Sahu, N., Soni, D., Chandrashekhar, B., Sarangi, B.K., Satpute, D. and Pandey, R.A. (2013) Synthesis and characterization of silver nanoparticles using *Cynodon dactylon* leaves and assessment of their antibacterial activity. Bioprocess and biosystems engineering 36(7), 999-1004.
- ❖ Sakamoto, M., Fujistuka, M. and Majima, T. (2009) Light as a construction tool of metal nanoparticles: synthesis and mechanism. Journal of Photochemistry and Photobiology C: Photochemistry Reviews 10(1), 33-56.
- ❖ Salari, Z., Danafar, F., Dabaghi, S. and Ataei, S.A. (2016) Sustainable synthesis of silver nanoparticles using macroalgae *Spirogyra varians* and analysis of their antibacterial activity. Journal of Saudi Chemical Society 20(4), 459-464.
- ❖ Salunke, G.R., Ghosh, S., Kumar, R.S., Khade, S., Vashisth, P., Kale, T., Chopade, S., Pruthi, V., Kundu, G. and Bellare, J.R. (2014) Rapid efficient synthesis and characterization of silver, gold, and bimetallic nanoparticles from the medicinal plant *Plumbago zeylanica* and their application in biofilm control. International journal of nanomedicine 9, 2635.
- ❖ Samadi, N., Golkaran, D., Eslamifar, A., Jamalifar, H., Fazeli, M.R. and Mohseni, F.A. (2009) Intra/Extracellular Biosynthesis of Silver Nanoparticles by an Autochthonous Strain of *Proteus mirabilis* Isolated from Photographic Waste. Journal of Biomedical Nanotechnology 5(3), 247-253.
- ❖ Sánchez, G.R., Castilla, C.L., Gómez, N.B., García, A., Marcos, R. and Carmona, E.R. (2016) Leaf extract from the endemic plant *Peumus boldus* as an effective bioproduct for the green synthesis of silver nanoparticles. Materials Letters 183, 255-260.
- ❖ Sang, J., Aisawa, S., Hirahara, H., Kudo, T. and Mori, K. (2016) Self-reduction and size controlled synthesis of silver nanoparticles on carbon nanospheres by grafting triazine-based molecular layer for conductivity improvement. Applied Surface Science 364, 110-116.
- ❖ Santhoshkumar, T., Rahuman, A.A., Rajakumar, G., Marimuthu, S., Bagavan, A., Jayaseelan, C., Zahir, A.A., Elango, G. and Kamaraj, C. (2011) Synthesis of silver nanoparticles using *Nelumbo nucifera* leaf extract and its larvicidal activity against malaria and filariasis vectors. Parasitology research 108(3), 693-702.
- ❖ Santos, L., Silveira, C.M., Elangovan, E., Neto, J.P., Nunes, D., Pereira, L., Martins, R., Viegas, J., Moura, J.J. and Todorovic, S. (2016) Synthesis of WO₃ nanoparticles for biosensing applications. Sensors and Actuators B: Chemical 223, 186-194.
- ❖ Saravananakumar, A., Peng, M.M., Ganesh, M., Jayaprakash, J., Mohankumar, M. and Jang, H.T. (2016) Low-cost and eco-friendly green synthesis of silver nanoparticles using *Prunus japonica* (Rosaceae) leaf extract and their antibacterial, antioxidant properties. Artificial cells, nanomedicine, and biotechnology, 1-7.
- ❖ Saravanan, M. and Nanda, A. (2010) Extracellular synthesis of silver bionanoparticles from *Aspergillus clavatus* and its antimicrobial activity against MRSA and MRSE. Colloids and Surfaces B: Biointerfaces 77(2), 214-218.
- ❖ Sarkar, S., Jana, A.D., Samanta, S.K. and Mostafa, G. (2007) Facile synthesis of silver nano particles with highly efficient anti-microbial property. Polyhedron 26(15), 4419-4426.
- ❖ Sastry, M., Ahmad, A., Khan, M.I. and Kumar, R. (2003) Biosynthesis of metal nanoparticles using fungi and actinomycete. Current science 85(2), 162-170.
- ❖ Sastry, M., Mayya, K. and Bandyopadhyay, K. (1997) pH Dependent changes in the optical properties of carboxylic acid derivatized silver colloidal particles. Colloids and Surfaces A: Physicochemical and Engineering Aspects 127(1), 221-228.
- ❖ Sathishkumar, M., Sneha, K., Won, S., Cho, C.-W., Kim, S. and Yun, Y.-S. (2009) *Cinnamom zeylanicum* bark extract and powder mediated green synthesis of nano-crystalline silver particles and its bactericidal activity. Colloids and Surfaces B: Biointerfaces 73(2), 332-338.
- ❖ Saxena, A., Tripathi, R. and Singh, R. (2010) Biological synthesis of silver nanoparticles by using onion (*Allium cepa*) extract and their antibacterial activity. Dig J Nanomater Bios 5(2), 427-432.
- ❖ Saxena, A., Tripathi, R., Zafar, F. and Singh, P. (2012) Green synthesis of silver nanoparticles using aqueous solution of *Ficus benghalensis* leaf extract and characterization of their antibacterial activity. Materials Letters 67(1), 91-94.
- ❖ Schmidt, T., Gasteiger, H. and Behm, R. (1999) Rotating disk electrode measurements on the CO tolerance of a high-surface area Pt/vulcan carbon fuel cell catalyst. Journal of The Electrochemical Society 146(4), 1296-1304.
- ❖ Senapati, S., Syed, A., Moeez, S., Kumar, A. and Ahmad, A. (2012) Intracellular synthesis of gold nanoparticles using alga *Tetraselmis kochinensis*. Materials Letters 79, 116-118.
- ❖ Shahid, M.M., Rameshkumar, P. and Huang, N.M. (2016) A glassy carbon electrode modified with graphene oxide and silver nanoparticles for amperometric determination of hydrogen peroxide. Microchimica Acta 183(2), 911-916.

- ❖ Shahverdi, A.R., Minaeian, S., Shahverdi, H.R., Jamalifar, H. and Nohi, A.-A. (2007) Rapid synthesis of silver nanoparticles using culture supernatants of Enterobacteria: a novel biological approach. *Process Biochemistry* 42(5), 919-923.
- ❖ Shalaby, T.I., Mahmoud, O.A., El Batouti, G.A. and Ibrahim, E.E. (2015) Green synthesis of silver nanoparticles: synthesis, characterization and antibacterial activity. *Nanoscience and Nanotechnology* 5(2), 23-29.
- ❖ Shaligram, N.S., Bule, M., Bhambure, R., Singhal, R.S., Singh, S.K., Szakacs, G. and Pandey, A. (2009) Biosynthesis of silver nanoparticles using aqueous extract from the compactin producing fungal strain. *Process Biochemistry* 44(8), 939-943.
- ❖ Shams, S., Pourseyedi, S. and Hashemipour Rafsanjani, H. (2014) Green synthesis of silver nanoparticles and its effect on total proteins in *Melia azedarach* plant. *International Journal of Nanoscience and Nanotechnology* 10(3), 181-186.
- ❖ Shamsipur, M., Safavi, A. and Mohammadpour, Z. (2014) Indirect colorimetric detection of glutathione based on its radical restoration ability using carbon nanodots as nanozymes. *Sensors and Actuators B: Chemical* 199, 463-469.
- ❖ Shankar, S.S., Rai, A., Ahmad, A. and Sastry, M. (2004) Rapid synthesis of Au, Ag, and bimetallic Au core–Ag shell nanoparticles using Neem (*Azadirachta indica*) leaf broth. *Journal of colloid and interface science* 275(2), 496-502.
- ❖ Shankar, S.S., Rai, A., Ahmad, A. and Sastry, M. (2005) Controlling the optical properties of lemongrass extract synthesized gold nanotriangles and potential application in infrared-absorbing optical coatings. *Chemistry of materials* 17(3), 566-572.
- ❖ Shanmugaraj, K. and Ilanchelian, M. (2016) Colorimetric determination of sulfide using chitosan-capped silver nanoparticles. *Microchimica Acta* 183(5), 1721-1728.
- ❖ Sharifi-Rad, J., Hoseini-Alfatemi, S.M., Sharifi-Rad, M., Sharifi-Rad, M., Iriti, M., Sharifi-Rad, M., Sharifi-Rad, R. and Raeisi, S. (2015) Phytochemical compositions and biological activities of essential oil from *Xanthium strumarium* L. *Molecules* 20(4), 7034-7047.
- ❖ Sharifi-Rad, J., Hoseini-Alfatemi, S.M., Sharifi-Rad, M., Sharifi-Rad, M., Iriti, M., Sharifi-Rad, M., Sharifi-Rad, R. and Raeisi, S. (2015) Phytochemical compositions and biological activities of essential oil from *Xanthium strumarium* L. *Molecules* 20(4), 7034-7047.
- ❖ Sharma, B., Purkayastha, D.D., Hazra, S., Thajamanbi, M., Bhattacharjee, C.R., Ghosh, N.N. and Rout, J. (2014) Biosynthesis of fluorescent gold nanoparticles using an edible freshwater red alga, *Lemanea fluviatilis* (L.) C. Ag and antioxidant activity of biomatrix loaded nanoparticles. *Bioprocess and biosystems engineering* 37(12), 2559-2565.
- ❖ Sharma, K.D. (2017) Antibacterial Activity of Biogenic Platinum Nanoparticles: An invitro Study. *Int. J. Curr. Microbiol. App. Sci* 6(2), 801-808.
- ❖ Sharma, N.C., Sahi, S.V., Nath, S., Parsons, J.G., Gardea-Torresde, J.L. and Pal, T. (2007) Synthesis of plant-mediated gold nanoparticles and catalytic role of biomatrix-embedded nanomaterials. *Environmental science & technology* 41(14), 5137-5142.
- ❖ Sheeba, J.M. and Thambidurai, S. (2009) Extraction, characterization, and application of seaweed nanoparticles on cotton fabrics. *Journal of applied polymer science* 113(4), 2287-2292.
- ❖ Sheikhloo, Z., Salouti, M. and Katiraei, F. (2011) Biological synthesis of gold nanoparticles by fungus *Epicoccum nigrum*. *Journal of Cluster Science* 22(4), 661-665.
- ❖ Shen, W., Qu, Y., Pei, X., Li, S., You, S., Wang, J., Zhang, Z. and Zhou, J. (2017) Catalytic reduction of 4-nitrophenol using gold nanoparticles biosynthesized by cell-free extracts of *Aspergillus* sp. WL-Au. *Journal of Hazardous Materials* 321, 299-306.
- ❖ Shen, Z., Han, G., Liu, C., Wang, X. and Sun, R. (2016) Green synthesis of silver nanoparticles with bagasse for colorimetric detection of cysteine in serum samples. *Journal of Alloys and Compounds* 686, 82-89.
- ❖ Sheny, D., Mathew, J. and Philip, D. (2011) Phytosynthesis of Au, Ag and Au–Ag bimetallic nanoparticles using aqueous extract and dried leaf of *Anacardium occidentale*. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 79(1), 254-262.
- ❖ Shetty, P., Supraja, N., Garud, M. and Prasad, T. (2014) Synthesis, characterization and antimicrobial activity of *Alstonia scholaris* bark-extract-mediated silver nanoparticles. *Journal of Nanostructure in Chemistry* 4(4), 161-170.
- ❖ Shi, W., Fan, H., Ai, S. and Zhu, L. (2015a) Pd nanoparticles supported on nitrogen, sulfur-doped three-dimensional hierarchical nanostructures as peroxidase-like catalysts for colorimetric detection of xanthine. *RSC Advances* 5(41), 32183-32190.
- ❖ Shi, W., Fan, H., Ai, S. and Zhu, L. (2015b) Honeycomb-like nitrogen-doped porous carbon supporting Pt nanoparticles as enzyme mimic for colorimetric detection of cholesterol. *Sensors and Actuators B: Chemical* 221, 1515-1522.
- ❖ Shi, Y., Li, S., Zhou, Y., Zhai, Q., Hu, M., Cai, F., Du, J., Liang, J. and Zhu, X. (2012) Facile preparation of luminescent and intelligent gold nanodots based on supramolecular self-assembly. *Nanotechnology* 23(48), 485603.

- ❖ Shi, Y., Pan, Y., Zhang, H., Zhang, Z., Li, M.-J., Yi, C. and Yang, M. (2014) A dual-mode nanosensor based on carbon quantum dots and gold nanoparticles for discriminative detection of glutathione in human plasma. *Biosensors and Bioelectronics* 56, 39-45.
- ❖ Shin, J., Lee, S. and Cha, M. (2017) Neuroprotective effect of single-wall carbon nanotubes with built-in peroxidase-like activity against β -amyloid-induced neurotoxicity. *MedChemComm* 8(3), 625-632.
- ❖ Shrivastav, K., Sahu, S., Patra, G.K., Jaiswal, N.K. and Shankar, R. (2016) Localized surface plasmon resonance of silver nanoparticles for sensitive colorimetric detection of chromium in surface water, industrial waste water and vegetable samples. *Analytical Methods* 8(9), 2088-2096.
- ❖ Shrivastava, S., Bera, T., Roy, A., Singh, G., Ramachandrarao, P. and Dash, D. (2007) Characterization of enhanced antibacterial effects of novel silver nanoparticles. *Nanotechnology* 18(22), 225103.
- ❖ Sillars, F.B., Fletcher, S.I., Mirzaeian, M. and Hall, P.J. (2011) Effect of activated carbon xerogel pore size on the capacitance performance of ionic liquid electrolytes. *Energy & Environmental Science* 4(3), 695-706.
- ❖ Silva-De Hoyos, L.E., Sánchez-Mendieta, V., Vilchis-Nestor, A.R. and Camacho-López, M.A. (2017) Biogenic Silver Nanoparticles as Sensors of Cu^{2+} and Pb^{2+} in Aqueous Solutions.
- ❖ Singh, A., Chaudhari, M. and Sastry, M. (2006) Construction of conductive multilayer films of biogenic triangular gold nanoparticles and their application in chemical vapour sensing. *Nanotechnology* 17(9), 2399.
- ❖ Singh, D.K., Kumar, V., Singh, V.K. and Hasan, S.H. (2016) Modeling of Adsorption Behavior of the Amine-Rich GOPEI Aerogel for the Removal of As (III) and As (V) from Aqueous Medium. *RSC Advances*.
- ❖ Singh, M., Kalaivani, R., Manikandan, S., Sangeetha, N. and Kumaraguru, A. (2013) Facile green synthesis of variable metallic gold nanoparticle using *Padina gymnospora*, a brown marine macroalga. *Applied Nanoscience* 3(2), 145-151.
- ❖ Singh, N.K., Ghosh, A., Laloo, D. and Singh, V.P. (2014) Pharmacognostical and physicochemical evaluation of *Croton bonplandianum*. *Int J Pharm Pharm Sci* 6(3), 286-290.
- ❖ Singh, N.K., Ghosh, A., Laloo, D. and Singh, V.P. (2014) Pharmacognostical and physicochemical evaluation of croton bonplandianum. *Int J Pharm Pharm Sci* 6(3), 286-290.
- ❖ Singh, P., Kim, Y.J., Wang, C., Mathiyalagan, R. and Yang, D.C. (2016) The development of a green approach for the biosynthesis of silver and gold nanoparticles by using *Panax ginseng* root extract, and their biological applications. *Artificial cells, nanomedicine, and biotechnology* 44(4), 1150-1157.
- ❖ Sinha, S.N., Paul, D., Halder, N., Sengupta, D. and Patra, S.K. (2015) Green synthesis of silver nanoparticles using fresh water green alga *Pithophora oedogonia* (Mont.) Wittrock and evaluation of their antibacterial activity. *Applied Nanoscience* 5(6), 703-709.
- ❖ Sivakumar, A.S., Krishnaraj, C., Sheet, S., Rampa, D.R., Belal, S.A., Kumar, A., Hwang, I.H., Yun, S.-I., Lee, Y.S. and Shim, K.S. (2017) Interaction of silver and gold nanoparticles in mammalian cancer: as real topical bullet for wound healing—A comparative study. In *Vitro Cellular & Developmental Biology-Animal*, 1-14.
- ❖ Sivakumar, A.S., Krishnaraj, C., Sheet, S., Rampa, D.R., Belal, S.A., Kumar, A., Hwang, I.H., Yun, S.-I., Lee, Y.S. and Shim, K.S. (2017) Interaction of silver and gold nanoparticles in mammalian cancer: as real topical bullet for wound healing—A comparative study. In *Vitro Cellular & Developmental Biology-Animal*, 1-14.
- ❖ Sivakumar, P., Nethradevi, C. and Renganathan, S. (2012) Synthesis of silver nanoparticles using *Lantana camara* fruit extract and its effect on pathogens. *Asian J Pharm Clin Res* 5(3), 97-101.
- ❖ Składanowski, M., Wypij, M., Laskowski, D., Golińska, P., Dahm, H. and Rai, M. (2017) Silver and gold nanoparticles synthesized from *Streptomyces sp.* isolated from acid forest soil with special reference to its antibacterial activity against pathogens. *Journal of Cluster Science* 28(1), 59-79.
- ❖ Smitha, S., Philip, D. and Gopchandran, K. (2009) Green synthesis of gold nanoparticles using *Cinnamomum zeylanicum* leaf broth. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 74(3), 735-739.
- ❖ Sondi, I. and Salopek-Sondi, B. (2004) Silver nanoparticles as antimicrobial agent: a case study on *E. coli* as a model for Gram-negative bacteria. *Journal of colloid and interface science* 275(1), 177-182.
- ❖ Song, Y., Wang, X., Zhao, C., Qu, K., Ren, J. and Qu, X. (2010) Label-free colorimetric detection of single nucleotide polymorphism by using single-walled carbon nanotube intrinsic peroxidase-like activity. *Chemistry-A European Journal* 16(12), 3617-3621.
- ❖ Sowani, H., Mohite, P., Munot, H., Shouche, Y., Bapat, T., Kumar, A.R., Kulkarni, M. and Zinjarde, S. (2016) Green synthesis of gold and silver nanoparticles by an actinomycete *Gordonia amicalis* HS-11: Mechanistic aspects and biological application. *Process Biochemistry* 51(3), 374-383.
- ❖ Srirapu, V.K.V.P., Sharma, C.S., Awasthi, R., Singh, R.N. and Sinha, A.S.K. (2014) Copper–iron–molybdenum mixed oxides as efficient oxygen evolution electrocatalysts. *Physical Chemistry Chemical Physics* 16(16), 7385-7393.
- ❖ Su, L., Feng, J., Zhou, X., Ren, C., Li, H. and Chen, X. (2012) Colorimetric detection of urine glucose based $ZnFe_2O_4$ magnetic nanoparticles. *Analytical chemistry* 84(13), 5753-5758.
- ❖ Subashini, J. and Kannabiran, K. (2013) Antimicrobial activity of *Streptomyces sp.* VITBT7 and its synthesized silver nanoparticles against medically important fungal and bacterial pathogens. *Der. Pharmacia Lett* 5(3), 192-200.

- ❖ Subbaiya, R., Shiyamala, M., Revathi, K., Pushpalatha, R. and Selvam, M.M. (2014) Biological synthesis of silver nanoparticles from *Nerium oleander* and its antibacterial and antioxidant property. *Int J Curr Microbiol App Sci* 3(1), 83-87.
- ❖ Sujitha, M.V. and Kannan, S. (2013) Green synthesis of gold nanoparticles using Citrus fruits (*Citrus limon*, *Citrus reticulata* and *Citrus sinensis*) aqueous extract and its characterization. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 102, 15-23.
- ❖ Sujitha, V., Murugan, K., Paulpandi, M., Panneerselvam, C., Suresh, U., Roni, M., Nicoletti, M., Higuchi, A., Madhiyazhagan, P. and Subramaniam, J. (2015) Green-synthesized silver nanoparticles as a novel control tool against dengue virus (DEN-2) and its primary vector *Aedes aegypti*. *Parasitology research* 114(9), 3315-3325.
- ❖ Sun, Q., Fang, S., Fang, Y., Qian, Z. and Feng, H. (2017) Fluorometric detection of cholesterol based on β -cyclodextrin functionalized carbon quantum dots via competitive host-guest recognition. *Talanta* 167, 513-519.
- ❖ Sunil, K. and Narayana, B. (2008) Spectrophotometric determination of hydrogen peroxide in water and cream samples. *Bulletin of environmental contamination and toxicology* 81(4), 422-426.
- ❖ Supraja, N., Avinash, B. and Prasad, T. (2017) Green Synthesis and Characterization of Silver Nanoparticles from *Momordica charantia* Fruit Extract: Study of Antimicrobial Activities. *Int. J. Pure App. Biosci* 5(2), 107-117.
- ❖ Suresh, A.K., Pelletier, D.A., Wang, W., Broich, M.L., Moon, J.-W., Gu, B., Allison, D.P., Joy, D.C., Phelps, T.J. and Doktycz, M.J. (2011) Biofabrication of discrete spherical gold nanoparticles using the metal-reducing bacterium *Shewanella oneidensis*. *Acta Biomaterialia* 7(5), 2148-2152.
- ❖ Suresh, A.K., Pelletier, D.A., Wang, W., Moon, J.-W., Gu, B., Mortensen, N.P., Allison, D.P., Joy, D.C., Phelps, T.J. and Doktycz, M.J. (2010) Silver nanocrystallites: biofabrication using *Shewanella oneidensis*, and an evaluation of their comparative toxicity on gram-negative and gram-positive bacteria. *Environmental science & technology* 44(13), 5210-5215.
- ❖ Suresh, U., Murugan, K., Benelli, G., Nicoletti, M., Barnard, D.R., Panneerselvam, C., Kumar,
- ❖ Swain, S., Barik, S., Behera, T., Nayak, S., Sahoo, S., Mishra, S. and Swain, P. (2016) Green Synthesis of Gold Nanoparticles Using Root and Leaf Extracts of *Vetiveria zizanioides* and *Cannabis sativa* and its Antifungal Activities. *BioNanoScience* 6(3), 205-213.
- ❖ Syed, A., Saraswati, S., Kundu, G.C. and Ahmad, A. (2013) Biological synthesis of silver nanoparticles using the fungus *Hunicola sp.* and evaluation of their cytotoxicity using normal and cancer cell lines. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 114, 144-147.
- ❖ Tahir, K., Nazir, S., Ahmad, A., Li, B., Khan, A.U., Khan, Z.U.H., Khan, F.U., Khan, Q.U., Khan, A. and Rahman, A.U. (2017) Facile and green synthesis of phytochemicals capped platinum nanoparticles and in vitro their superior antibacterial activity. *Journal of Photochemistry and Photobiology B: Biology* 166, 246-251.
- ❖ Tahir, K., Nazir, S., Li, B., Khan, A.U., Khan, Z.U.H., Ahmad, A. and Khan, F.U. (2015) An efficient photo catalytic activity of green synthesized silver nanoparticles using *Salvadora persica* stem extract. *Separation and Purification Technology* 150, 316-324.
- ❖ Tang, Y., Song, H., Su, Y. and Lv, Y. (2013) Turn-on persistent luminescence probe based on graphitic carbon nitride for imaging detection of biothiols in biological fluids. *Analytical chemistry* 85(24), 11876-11884.
- ❖ Taniguchi, N. (1974) On the basic concept of nano-technology Proceedings of the International Conference on Production Engineering Tokyo Part II Japan Society of Precision Engineering.
- ❖ Tasis, D., Tagmatarchis, N., Bianco, A. and Prato, M. (2006) Chemistry of carbon nanotubes. *Chemical reviews* 106(3), 1105-1136.
- ❖ Temirov, R., Soubatch, S., Luican, A. and Tautz, F. (2006) Free-electron-like dispersion in an organic monolayer film on a metal substrate. *Nature* 444(7117), 350.
- ❖ Thakkar, K.N., Mhatre, S.S. and Parikh, R.Y. (2010) Biological synthesis of metallic nanoparticles. *Nanomedicine: Nanotechnology, Biology and Medicine* 6(2), 257-262.
- ❖ Thanh, N.T., Maclean, N. and Mahiddine, S. (2014) Mechanisms of nucleation and growth of nanoparticles in solution. *Chemical reviews* 114(15), 7610-7630.
- ❖ Thatai, S., Khurana, P., Prasad, S. and Kumar, D. (2014) A new way in nanosensors: gold nanorods for sensing of Fe (III) ions in aqueous media. *Microchemical Journal* 113, 77-82.
- ❖ Thenmozhi, M., Kannabiran, K., Kumar, R. and Khanna, V.G. (2013a) Antifungal activity of *Streptomyces sp.* VITSTK7 and its synthesized Ag₂O/Ag nanoparticles against medically important *Aspergillus pathogens*. *Journal de Mycologie Médicale/Journal of Medical Mycology* 23(2), 97-103.
- ❖ Thenmozhi, M., Vasuki, K., Dhanalakshmi, M. and Devi, K.M. (2013) EVALUATION OF ANTI INFLAMMATORY POTENTIAL OF CROTON BONPLANDIANUM BAIL LEAF. *International Journal of Pharmacology and Biological Sciences* 7(1), 9.
- ❖ Thenmozhi, M., Vasuki, K., Dhanalakshmi, M. and Devi, K.M. (2013b) Evaluation of anti inflammatory potential of *Croton bonplandianum* bail leaf. *International Journal of Pharmacology and Biological Sciences* 7(1), 9.
- ❖ Thompson, B.C. and Fréchet, J.M. (2008) Polymer-fullerene composite solar cells. *Angewandte chemie international edition* 47(1), 58-77.
- ❖ Thostenson, E.T., Ren, Z. and Chou, T.-W. (2001) Advances in the science and technology of carbon nanotubes and their composites: a review. *Composites science and technology* 61(13), 1899-1912.

- ❖ Tian, Y., Wang, F., Liu, Y., Pang, F. and Zhang, X. (2014) Green synthesis of silver nanoparticles on nitrogen-doped graphene for hydrogen peroxide detection. *Electrochimica Acta* 146, 646-653.
- ❖ Tiwari, J.N., Tiwari, R.N. and Kim, K.S. (2012) Zero-dimensional, one-dimensional, two-dimensional and three-dimensional nanostructured materials for advanced electrochemical energy devices. *Progress in Materials Science* 57(4), 724-803.
- ❖ Townsend, D.M., Tew, K.D. and Tapiero, H. (2003) The importance of glutathione in human disease. *Biomedicine & Pharmacotherapy* 57(3), 145-155.
- ❖ Tran, T.-H. and Nguyen, T.-D. (2011) Controlled growth of uniform noble metal nanocrystals: aqueous-based synthesis and some applications in biomedicine. *Colloids and Surfaces B: Biointerfaces* 88(1), 1-22.
- ❖ Turkevich, J., Stevenson, P.C. and Hillier, J. (1951) A study of the nucleation and growth processes in the synthesis of colloidal gold. *Discussions of the Faraday Society* 11, 55-75.
- ❖ Umadevi, M., Bindhu, M. and Sathe, V. (2013) A novel synthesis of malic acid capped silver nanoparticles using *Solanum lycopersicum* fruit extract. *Journal of Materials Science & Technology* 29(4), 317-322.
- ❖ Umeda, M., Harada-Shiba, M., Uchida, K. and Nakayama, Y. (2005) Photo-control of the polyplexes formation between DNA and photo-cation generatable water-soluble polymers. *Current drug delivery* 2(3), 207-214.
- ❖ Umeda, M., Harada-Shiba, M., Uchida, K. and Nakayama, Y. (2005) Photo-control of the polyplexes formation between DNA and photo-cation generatable water-soluble polymers. *Current drug delivery* 2(3), 207-214.
- ❖ Uttara, B., Singh, A.V., Zamboni, P. and Mahajan, R. (2009) Oxidative stress and neurodegenerative diseases: a review of upstream and downstream antioxidant therapeutic options. *Current neuropharmacology* 7(1), 65-74.
- ❖ Vadlapudi, V. (2010) In vitro antimicrobial activity of methanolic extract of selected Indian medicinal plants. *Pharmacophore* 1(3), 214-219.
- ❖ Vadlapudi, V. (2010) In vitro antimicrobial activity of methanolic extract of selected Indian medicinal plants. *Pharmacophore* 1(3), 214-219.
- ❖ Vala, A.K. (2015) Exploration on green synthesis of gold nanoparticles by a marine-derived fungus *Aspergillus sydowii*. *Environmental Progress & Sustainable Energy* 34(1), 194-197.
- ❖ Vanaja, M., Gnanajobitha, G., Paulkumar, K., Rajeshkumar, S., Malarkodi, C. and Annadurai, G. (2013) Phytosynthesis of silver nanoparticles by *Cissus quadrangularis*: influence of physicochemical factors. *Journal of Nanostructure in Chemistry* 3(1), 17.
- ❖ Varshney, R., Mishra, A., Bhadauria, S. and Gaura, M. (2009) novel microbial route to synthesize silver nanoparticles using fungus *hormoconis resinae*. *Digest Journal of Nanomaterials & Biostructures (DJNB)* 4(2).
- ❖ Varun, S., Daniel, S.K. and Gorthi, S.S. (2017) Rapid sensing of melamine in milk by interference green synthesis of silver nanoparticles. *Materials Science and Engineering: C* 74, 253-258.
- ❖ Vasíček, O., Papežíková, I. and Hyrslová, P. (2011) Fluorimetric determination of hydrogen peroxide production by the haemocytes of the wax moth *Galleria mellonella* (Lepidoptera: Pyralidae). *European Journal of Entomology* 108(3), 481.
- ❖ Veerasamy, R., Xin, T.Z., Gunasagaran, S., Xiang, T.F.W., Yang, E.F.C., Jeyakumar, N. and Dhanaraj, S.A. (2011) Biosynthesis of silver nanoparticles using mangosteen leaf extract and evaluation of their antimicrobial activities. *Journal of Saudi Chemical Society* 15(2), 113-120.
- ❖ Velayutham, K., Ramanibai, R. and Umadevi, M. (2016) Green synthesis of silver nanoparticles using Manihot esculenta leaves against *Aedes aegypti* and *Culex quinquefasciatus*. *The Journal of Basic & Applied Zoology* 74, 37-40.
- ❖ Velusamy, P. (2012) Biosynthesis of silver nanoparticles from *Tribulus terrestris* and its antimicrobial activity: a novel biological approach. *Colloids and Surfaces B: Biointerfaces* 96, 69-74.
- ❖ Venkatesan, J., Manivasagan, P., Kim, S.-K., Kirthi, A.V., Marimuthu, S. and Rahuman, A.A. (2014) Marine algae-mediated synthesis of gold nanoparticles using a novel *Ecklonia cava*. *Bioprocess and biosystems engineering* 37(8), 1591-1597.
- ❖ Venugopal, K., Rather, H., Rajagopal, K., Shanthi, M., Sheriff, K., Illiyas, M., Rather, R., Manikandan, E., Uvarajan, S. and Bhaskar, M. (2017) Synthesis of silver nanoparticles (Ag NPs) for anticancer activities (MCF 7 breast and A549 lung cell lines) of the crude extract of *Syzygium aromaticum*. *Journal of Photochemistry and Photobiology B: Biology* 167, 282-289.
- ❖ Verma, D.K., Hasan, S.H. and Banik, R.M. (2016) Photo-catalyzed and phyto-mediated rapid green synthesis of silver nanoparticles using herbal extract of *Salvinia molesta* and its antimicrobial efficacy. *Journal of Photochemistry and Photobiology B: Biology* 155, 51-59.
- ❖ Verma, S., Abirami, S. and Mahalakshmi, V. (2017) Anticancer and antibacterial activity of silver nanoparticles biosynthesized by *Penicillium spp.* and its synergistic effect with antibiotics. *Journal of Microbiology and Biotechnology Research* 3(3), 54-71.
- ❖ Vidhu, V., Aromal, S.A. and Philip, D. (2011) Green synthesis of silver nanoparticles using *Macrotyloma uniflorum*. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 83(1), 392-397.
- ❖ Vigneshwaran, N., Ashtaputre, N., Varadarajan, P., Nachane, R., Paralikar, K. and Balasubramanya, R. (2007) Biological synthesis of silver nanoparticles using the fungus *Aspergillus flavus*. *Materials Letters* 61(6), 1413-1418.

- ❖ Vijayakumar, P. and Prasad, B. (2009) Intracellular biogenic silver nanoparticles for the generation of carbon supported antiviral and sustained bactericidal agents. *Langmuir* 25(19), 11741-11747.
- ❖ Vijayan, S.R., Santhiyagu, P., Singamuthu, M., Kumari Ahila, N., Jayaraman, R. and Ethiraj, K. (2014) Synthesis and characterization of silver and gold nanoparticles using aqueous extract of seaweed, *Turbinaria conoides*, and their antimicrofouling activity. *The Scientific World Journal* 2014.
- ❖ Vijayaraghavan, K., Nalini, S.K., Prakash, N.U. and Madhankumar, D. (2012) One step green synthesis of silver nano/microparticles using extracts of *Trachyspermum ammi* and *Papaver somniferum*. *Colloids and Surfaces B: Biointerfaces* 94, 114-117.
- ❖ Vilchis-Nestor, A.R., Sánchez-Mendieta, V., Camacho-López, M.A., Gómez-Espínosa, R.M., Camacho-López, M.A. and Arenas-Alatorre, J.A. (2008) Solventless synthesis and optical properties of Au and Ag nanoparticles using *Camellia sinensis* extract. *Materials Letters* 62(17), 3103-3105.
- ❖ Vishnu Kiran, M. and Murugesan, S. (2014) Biological synthesis of silver nanoparticles from marine alga *Colpomenia sinuosa* and its in vitro anti-diabetic activity. *Am. J Biopharm. Biochem. Lifesci* 3(01), 01-07.
- ❖ Viturro, E., Koenning, M., Kroemer, A., Schlamberger, G., Wiedemann, S., Kaska, M. and Meyer, H.H. (2009) Cholesterol synthesis in the lactating cow: Induced expression of candidate genes. *The Journal of steroid biochemistry and molecular biology* 115(1), 62-67.
- ❖ Vivek, R., Thangam, R., Muthuchelian, K., Gunasekaran, P., Kaveri, K. and Kannan, S. (2012) Green biosynthesis of silver nanoparticles from *Annona squamosa* leaf extract and its in vitro cytotoxic effect on MCF-7 cells. *Process Biochemistry* 47(12), 2405-2410.
- ❖ Von White, G., Kerscher, P., Brown, R.M., Morella, J.D., McAllister, W., Dean, D. and Kitchens, C.L. (2012) Green synthesis of robust, biocompatible silver nanoparticles using garlic extract. *Journal of nanomaterials* 2012, 55.
- ❖ Wadhwani, S.A., Shedbalkar, U.U., Singh, R., Karve, M.S. and Chopade, B.A. (2014) Novel polyhedral gold nanoparticles: green synthesis, optimization and characterization by environmental isolate of *Acinetobacter sp. SW30*. *World Journal of Microbiology and Biotechnology* 30(10), 2723-2731.
- ❖ Wagner, F.E., Haslbeck, S., Stievano, L., Calogero, S., Pankhurst, Q. and Martinek, K.-P. (2000) Before striking gold in gold-ruby glass. *Nature* 407(6805), 691-692.
- ❖ Wang, B., Ji, X., Zhao, H., Wang, N., Li, X., Ni, R. and Liu, Y. (2014) An amperometric β -glucan biosensor based on the immobilization of bi-enzyme on Prussian blue-chitosan and gold nanoparticles-chitosan nanocomposite films. *Biosensors and Bioelectronics* 55, 113-119.
- ❖ Wang, C., Mathiyalagan, R., Kim, Y.J., Castro-Aceituno, V., Singh, P., Ahn, S., Wang, D. and Yang, D.C. (2016) Rapid green synthesis of silver and gold nanoparticles using *Dendropanax morbifera* leaf extract and their anticancer activities. *International journal of nanomedicine* 11, 3691.
- ❖ Wang, G., Yang, J., Park, J., Gou, X., Wang, B., Liu, H. and Yao, J. (2008) Facile synthesis and characterization of graphene nanosheets. *The Journal of Physical Chemistry C* 112(22), 8192-8195.
- ❖ Wang, H., Hao, Q., Yang, X., Lu, L. and Wang, X. (2010) A nanostructured graphene/polyaniline hybrid material for supercapacitors. *Nanoscale* 2(10), 2164-2170.
- ❖ Wang, H., Wang, H., Li, T., Ma, J., Li, K. and Zuo, X. (2017) Silver nanoparticles selectively deposited on graphene-colloidal carbon sphere composites and their application for hydrogen peroxide sensing. *Sensors and Actuators B: Chemical* 239, 1205-1212.
- ❖ Wang, L., Wu, T., Du, S., Pei, M., Guo, W. and Wei, S. (2016) High performance supercapacitors based on ternary graphene/Au/polyaniline (PANI) hierarchical nanocomposites. *RSC Advances* 6(2), 1004-1011.
- ❖ Wang, N., Sun, J., Chen, L., Fan, H. and Ai, S. (2015) A $\text{Cu}_2(\text{OH})_3\text{Cl}-\text{CeO}_2$ nanocomposite with peroxidase-like activity, and its application to the determination of hydrogen peroxide, glucose and cholesterol. *Microchimica Acta* 182(9-10), 1733-1738.
- ❖ Wang, Y., Gao, S., Zang, X., Li, J. and Ma, J. (2012) Graphene-based solid-phase extraction combined with flame atomic absorption spectrometry for a sensitive determination of trace amounts of lead in environmental water and vegetable samples. *Analytica chimica acta* 716, 112-118.
- ❖ Wang, Y., Xue, X., Xiao, Y., Zhang, F., Xu, Q. and Liang, X. (2008) Purification and preparation of compounds from an extract of *Scutellaria barbata* D. Don using preparative parallel high performance liquid chromatography. *Journal of separation science* 31(10), 1669-1676.
- ❖ Wani, I.A. and Ahmad, T. (2013) Size and shape dependant antifungal activity of gold nanoparticles: a case study of *Candida*. *Colloids and Surfaces B: Biointerfaces* 101, 162-170.
- ❖ Watts, J.L., Clinical and Institute, L.S. (2008) Performance standards for antimicrobial disk and dilution susceptibility tests for bacteria isolated from animals: approved standard, National Committee for Clinical Laboratory Standards.
- ❖ Wei, L., Lu, J., Xu, H., Patel, A., Chen, Z.-S. and Chen, G. (2015) Silver nanoparticles: synthesis, properties, and therapeutic applications. *Drug Discovery Today* 20(5), 595-601.
- ❖ Welch, C., Banks, C., Simm, A. and Compton, R. (2005) Silver nanoparticle assemblies supported on glassy-carbon electrodes for the electro-analytical detection of hydrogen peroxide. *Analytical and bioanalytical chemistry* 382(1), 12-21.

- ❖ Wen, L., Lin, Z., Gu, P., Zhou, J., Yao, B., Chen, G. and Fu, J. (2009) Extracellular biosynthesis of monodispersed gold nanoparticles by a SAM capping route. *Journal of Nanoparticle Research* 11(2), 279-288.
- ❖ Wright, J.B., Lam, K., Buret, A.G., Olson, M.E. and Burrell, R.E. (2002) Early healing events in a porcine model of contaminated wounds: effects of nanocrystalline silver on matrix metalloproteinases, cell apoptosis, and healing. *Wound Repair and Regeneration* 10(3), 141-151.
- ❖ Wu, C., Ifa, D.R., Manicke, N.E. and Cooks, R.G. (2009) Rapid, direct analysis of cholesterol by charge labeling in reactive desorption electrospray ionization. *Analytical chemistry* 81(18), 7618-7624.
- ❖ Wu, J., Zheng, Y., Song, W., Luan, J., Wen, X., Wu, Z., Chen, X., Wang, Q. and Guo, S. (2014) In situ synthesis of silver-nanoparticles/bacterial cellulose composites for slow-released antimicrobial wound dressing. *Carbohydrate polymers* 102, 762-771.
- ❖ Wu, Y., Ma, Y., Xu, G., Wei, F., Ma, Y., Song, Q., Wang, X., Tang, T., Song, Y. and Shi, M. (2017) Metal-organic framework coated Fe 3 O 4 magnetic nanoparticles with peroxidase-like activity for colorimetric sensing of cholesterol. *Sensors and Actuators B: Chemical* 249, 195-202.
- ❖ Xiang, Z., Wang, Y., Ju, P. and Zhang, D. (2016) Optical determination of hydrogen peroxide by exploiting the peroxidase-like activity of AgVO₃ nanobelts. *Microchimica Acta* 183(1), 457-463.
- ❖ Xie, J., Lee, J.Y., Wang, D.I. and Ting, Y.P. (2007) Identification of active biomolecules in the high-yield synthesis of single-crystalline gold nanoplates in algal solutions. *Small* 3(4), 672-682.
- ❖ Xie, J., Zhang, X., Wang, H., Zheng, H. and Huang, Y. (2012) Analytical and environmental applications of nanoparticles as enzyme mimetics. *TrAC Trends in Analytical Chemistry* 39, 114-129.
- ❖ Xu, Q., Gu, S.-X., Jin, L., Zhou, Y.-e., Yang, Z., Wang, W. and Hu, X. (2014) Graphene/polyaniline/gold nanoparticles nanocomposite for the direct electron transfer of glucose oxidase and glucose biosensing. *Sensors and Actuators B: Chemical* 190, 562-569.
- ❖ Yan, J., Huang, Y., Zhang, C., Fang, Z., Bai, W., Yan, M., Zhu, C. and Chen, A. (2017) Aptamer based photometric assay for the antibiotic sulfadimethoxine based on the inhibition and reactivation of the peroxidase-like activity of gold nanoparticles. *Microchimica Acta* 184(1), 59-63.
- ❖ Yan, J., Wei, T., Fan, Z., Qian, W., Zhang, M., Shen, X. and Wei, F. (2010) Preparation of graphene nanosheet/carbon nanotube/polyaniline composite as electrode material for supercapacitors. *Journal of Power Sources* 195(9), 3041-3045.
- ❖ Yang, L., Zhao, H., Li, Y., Ran, X., Deng, G., Zhang, Y., Ye, H., Zhao, G. and Li, C.-P. (2016) Indicator displacement assay for cholesterol electrochemical sensing using a calix [6] arene functionalized graphene-modified electrode. *Analyst* 141(1), 270-278.
- ❖ Yang, N., Wei, X.-F. and Li, W.-H. (2015) Sunlight irradiation induced green synthesis of silver nanoparticles using peach gum polysaccharide and colorimetric sensing of H₂O₂. *Materials Letters* 154, 21-24.
- ❖ Yang, S., Mulet, X., Gengenbach, T., Waddington, L., Seeber, A., Zhen, M., Wang, C., Muir, B.W., Such, G.K. and Hao, X. (2017) Limitations with solvent exchange methods for synthesis of colloidal fullerenes. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 514, 21-31.
- ❖ Yang, S.J. and Park, C.R. (2007) Facile preparation of monodisperse ZnO quantum dots with high quality photoluminescence characteristics. *Nanotechnology* 19(3), 035609.
- ❖ Yang, X., Ouyang, Y., Wu, F., Hu, Y., Ji, Y. and Wu, Z. (2017) Size controllable preparation of gold nanoparticles loading on graphene sheets@ cerium oxide nanocomposites modified gold electrode for nonenzymatic hydrogen peroxide detection. *Sensors and Actuators B: Chemical* 238, 40-47.
- ❖ Yang, X., Yang, J., Wang, L., Ran, B., Jia, Y., Zhang, L., Yang, G., Shao, H. and Jiang, X. (2017) Pharmaceutical Intermediate-Modified Gold Nanoparticles: Against Multidrug-Resistant Bacteria and Wound-Healing Application via Electrospun Scaffold. *ACS nano*.
- ❖ Yashavantha Rao, H.C., Nagendra-Prasad, M.N., Prasad, A., Harini, B.P., Azmath, P., Rakshith, D. and Satish, S. (2016) Biomimetic synthesis of silver nanoparticles using endosymbiotic bacterium inhabiting *Euphorbia hirta* l. and their bactericidal potential. *Scientifica* 2016.
- ❖ Yeh, Y.-C., Creran, B. and Rotello, V.M. (2012) Gold nanoparticles: preparation, properties, and applications in bionanotechnology. *Nanoscale* 4(6), 1871-1880.
- ❖ Yin, J., Cao, H. and Lu, Y. (2012) Self-assembly into magnetic Co₃O₄ complex nanostructures as peroxidase. *Journal of Materials Chemistry* 22(2), 527-534.
- ❖ Yola, M.L., Eren, T., Atar, N. and Wang, S. (2014a) Adsorptive and photocatalytic removal of reactive dyes by silver nanoparticle-colemanite ore waste. *Chemical Engineering Journal* 242, 333-340.
- ❖ Yola, M.L., Eren, T., Atar, N., Saral, H. and Ermiş, İ. (2016a) Direct-methanol Fuel Cell Based on Functionalized Graphene Oxide with Mono-metallic and Bi-metallic Nanoparticles: Electrochemical Performances of Nanomaterials for Methanol Oxidation. *Electroanalysis* 28(3), 570-579.
- ❖ Yola, M.L., Gupta, V.K. and Atar, N. (2016b) New molecular imprinted voltammetric sensor for determination of ochratoxin A. *Materials Science and Engineering: C* 61, 368-375.
- ❖ Yola, M.L., Gupta, V.K., Eren, T., Şen, A.E. and Atar, N. (2014b) A novel electro analytical nanosensor based on graphene oxide/silver nanoparticles for simultaneous determination of quercetin and morin. *Electrochimica Acta* 120, 204-211.

- ❖ Yu, D. and Dai, L. (2009) Self-assembled graphene/carbon nanotube hybrid films for supercapacitors. *The Journal of Physical Chemistry Letters* 1(2), 467-470.
- ❖ Yu-sen, E.L., Vidic, R.D., Stout, J.E., McCartney, C.A. and Victor, L.Y. (1998) Inactivation of *Mycobacterium avium* by copper and silver ions. *Water research* 32(7), 1997-2000.
- ❖ Zarchi, A.K., Mokhtari, N., Arfan, M., Rehman, T., Ali, M., Amini, M., Majidi, R.F. and Shahverdi, A. (2011) A sunlight-induced method for rapid biosynthesis of silver nanoparticles using an *Andrachnea chordifolia* ethanol extract. *Applied Physics A* 103(2), 349-353.
- ❖ Zargar, M., Shameli, K., Najafi, G.R. and Farahani, F. (2014) Plant mediated green biosynthesis of silver nanoparticles using *Vitex negundo* L. extract. *Journal of Industrial and Engineering Chemistry* 20(6), 4169-4175.
- ❖ Zayed, M.F. and Eisa, W.H. (2014) *Phoenix dactylifera* L. leaf extract phytosynthesized gold nanoparticles; controlled synthesis and catalytic activity. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 121, 238-244.
- ❖ Zhan, B., Liu, C., Shi, H., Li, C., Wang, L., Huang, W. and Dong, X. (2014) A hydrogen peroxide electrochemical sensor based on silver nanoparticles decorated three-dimensional graphene. *Applied Physics Letters* 104(24), 243704.
- ❖ Zhan, G., Huang, J., Lin, L., Lin, W., Emmanuel, K. and Li, Q. (2011) Synthesis of gold nanoparticles by *Cacumen platycladi* leaf extract and its simulated solution: toward the plant-mediated biosynthetic mechanism. *Journal of Nanoparticle Research* 13(10), 4957.
- ❖ Zhang, H., Li, Q., Lu, Y., Sun, D., Lin, X., Deng, X., He, N. and Zheng, S. (2005) Biosorption and bioreduction of diamine silver complex by *Corynebacterium*. *Journal of Chemical Technology and Biotechnology* 80(3), 285-290.
- ❖ Zhang, J., Langille, M.R. and Mirkin, C.A. (2010) Photomediated synthesis of silver triangular bipyramids and prisms: the effect of pH and BSPP. *Journal of the American Chemical Society* 132(35), 12502-12510.
- ❖ Zhang, L. and Du, J. (2016) Selective sensing of submicromolar iron (III) with 3, 3', 5, 5'-tetramethylbenzidine as a chromogenic probe. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 158, 24-28.
- ❖ Zhang, N., Qu, F., Luo, H.Q. and Li, N.B. (2013) Sensitive and selective detection of biothiols based on target-induced agglomeration of silvernanoclusters. *Biosensors and Bioelectronics* 42, 214-218.
- ❖ Zhang, W., Sun, Y., Lou, Z., Song, L., Wu, Y., Gu, N. and Zhang, Y. (2017a) In vitro cytotoxicity evaluation of graphene oxide from the peroxidase-like activity perspective. *Colloids and Surfaces B: Biointerfaces* 151, 215-223.
- ❖ Zhang, Y., Liu, S., Li, Y., Deng, D., Si, X., Ding, Y., He, H., Luo, L. and Wang, Z. (2015b) Electrospun graphene decorated MnCo₂O₄ composite nanofibers for glucose biosensing. *Biosensors and Bioelectronics* 66, 308-315.
- ❖ Zhang, Y., Wang, Y.-N., Sun, X.-T., Chen, L. and Xu, Z.-R. (2017b) Boron nitride nanosheet/CuS nanocomposites as mimetic peroxidase for sensitive colorimetric detection of cholesterol. *Sensors and Actuators B: Chemical* 246, 118-126.
- ❖ Zhang, Y., Wang, Z., Ji, Y., Liu, S. and Zhang, T. (2015a) Synthesis of Ag nanoparticle–carbon nanotube–reduced graphene oxide hybrids for highly sensitive non-enzymatic hydrogen peroxide detection. *RSC Advances* 5(49), 39037-39041.
- ❖ Zhao, C., Wan, L., Jiang, L., Wang, Q. and Jiao, K. (2008) Highly sensitive and selective cholesterol biosensor based on direct electron transfer of hemoglobin. *Analytical Biochemistry* 383(1), 25-30.
- ❖ Zheng, W., Hu, L., Lee, L.Y.S. and Wong, K.-Y. (2016) Copper nanoparticles/polyaniline/graphene composite as a highly sensitive electrochemical glucose sensor. *Journal of Electroanalytical Chemistry*.
- ❖ Zhong, L., Gan, S., Fu, X., Li, F., Han, D., Guo, L. and Niu, L. (2013) Electrochemically controlled growth of silver nanocrystals on graphene thin film and applications for efficient nonenzymatic H₂O₂ biosensor. *Electrochimica Acta* 89, 222-228.
- ❖ Zhou, J.C., Wang, X., Xue, M., Xu, Z., Hamasaki, T., Yang, Y., Wang, K. and Dunn, B. (2010) Characterization of gold nanoparticle binding to microtubule filaments. *Materials Science and Engineering: C* 30(1), 20-26.
- ❖ Zhou, L., Huang, J., He, B., Zhang, F. and Li, H. (2014) Peach gum for efficient removal of methylene blue and methyl violet dyes from aqueous solution. *Carbohydrate polymers* 101, 574-581.
- ❖ Zsigmondy, R. (1906) Amicroscopic Gold Germs. I. *Z. Phys. Chem* 56, 65-76.