



## **Hot off the Press** **Faculty Publications as of August, 2019**

### **Agricultural & Biological Sciences**

- Amarasekara, A. S., & Deng, F. (2019). Acidic ionic liquid catalyzed liquefaction of untreated switchgrass biomass in acetone and pd-Ia(OTf)<sub>3</sub> catalyzed reduction of the products. *Biomass and Bioenergy*, 127 doi:10.1016/j.biombioe.2019.105260
- Amarasekara, A. S., Wiredu, B., & Lawrence, Y. M. (2019). Hydrolysis and interactions of D-cellobiose with polycarboxylic acids. *Carbohydrate Research*, 475, 34-38. doi:10.1016/j.carres.2019.02.002
- Babayev, M., Du, H., Botlaguduru, V. S. V., & Kommalapati, R. R. (2019). Zwitterion-modified ultrafiltration membranes for permian basin produced water pretreatment. *Water (Switzerland)*, 11(8) doi: 10.3390/w11081710
- Crossland, W. L., Jobe, J. T., Ribeiro, F. R. B., Sawyer, J. E., Callaway, T. R., & Tedeschi, L. O. (2019). Evaluation of active dried yeast in the diets of feedlot steers-I: Effects on feeding performance traits, the composition of growth, and carcass characteristics. *Journal of Animal Science*, 97(3), 1335-1346. doi:10.1093/jas/skz007
- Dong, X., Chowdhury, S., Qian, L., Li, X., Guan, Y., Yang, J., & Yu, Q. (2019). Deep learning for named entity recognition on chinese electronic medical records: Combining deep transfer learning with multitask bi-directional LSTM RNN. *Plos One*, 14(5) doi:10.1371/journal.pone.0216046
- Fernando, H., Ju, H., Kakumanu, R., Bhopale, K. K., Croisant, S., Elferink, C., . . . Ansari, G. A. S. (2019). Distribution of petrogenic polycyclic aromatic hydrocarbons (PAHs) in seafood following deepwater horizon oil spill. *Marine Pollution Bulletin*, 145, 200-207. doi: 10.1016/j.marpolbul.2019.05.015
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- Halperin, R. F., Liang, W. S., Kulkarni, S., Tassone, E. E., Adkins, J., Enriquez, D., . . . Byron, S. A. (2019). Leveraging spatial variation in tumor purity for improved somatic variant calling of archival tumor only samples. *Frontiers in Oncology*, 9(MAR) doi: 10.3389/fonc.2019.00119
- Iacobas, S., Ede, N., & Iacobas, D. A. (2019). The gene master regulators (GMR) approach provides legitimate targets for personalized, time-sensitive cancer gene therapy. *Genes*, 10(8) doi:10.3390/genes10080560
- Johnson, P., Yang, Y., Uboh, U., Ren, R., Carnegie, C. -, Russell, S., . . . Hosang, M. (2019). An innovative new approach to animal care. Paper presented at the *GHTC 2018 - IEEE Global Humanitarian Technology Conference, Proceedings*, doi:10.1109/GHTC.2018.8601912
- Moussavi, M., Lieberman, V., Theofel, C., Barouei, J., & Harris, L. J. (2019). Growth of salmonella and other foodborne pathogens on inoculated inshell pistachios during simulated delays between hulling and drying. *Journal of Food Protection*, 82(5), 815-825. doi:10.4315/0362-028X.JFP-18-450



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- Newton, G. R., Lewis, S. K., Avendano, J., Williams, E. A., Ribeiro, F. R. B., Nuti, L. C., . . . Ing, N. H. (2019). Fucosyltransferase gene expression in goat endometrium during the estrous cycle and early pregnancy. *Theriogenology*, *132*, 118-127. doi:10.1016/j.theriogenology.2019.04.022
- Obeng, E., Obour, A. K., Nelson, N. O., Moreno, J. A., Ciampitti, I. A., Wang, D., & Durrett, T. P. (2019). Seed yield and oil quality as affected by camelina cultivar and planting date. *Journal of Crop Improvement*, *33*(2), 202-222. doi:10.1080/15427528.2019.1566186
- Park, J., Lee, D., & Sutradhar, A. (2019). Topology optimization of fixed complete denture framework. *International Journal for Numerical Methods in Biomedical Engineering*, *35*(6) doi:10.1002/cnm.3193
- Stearman, R. S., Bui, Q. M., Speyer, G., Handen, A., Cornelius, A. R., Graham, B. B., . . . Geraci, M. W. (2019). Systems analysis of the human pulmonary arterial hypertension lung transcriptome. *American Journal of Respiratory Cell and Molecular Biology*, *60*(6), 637-649. doi:10.1165/rcmb.2018-0368OC

### **Biomedical Sciences**

- Cucinotta, F. A., Cacao, E., Kim, M. - Y., & Saganti, P. B. (2019). Non-targeted effects lead to a paradigm shift in risk assessment for a mission to the earth's moon or martian moon phobos. *Radiation Protection Dosimetry*, *183*(1-2), 213-218. doi:10.1093/rpd/ncy264
- Halperin, R. F., Liang, W. S., Kulkarni, S., Tassone, E. E., Adkins, J., Enriquez, D., . . . Byron, S. A. (2019). Leveraging spatial variation in tumor purity for improved somatic variant calling of archival tumor only samples. *Frontiers in Oncology*, *9*(MAR) doi:10.3389/fonc.2019.00119
- Heeney, D. D., Zhai, Z., Bendiks, Z., Barouei, J., Martinic, A., Slupsky, C., & Marco, M. L. (2019). *Lactobacillus plantarum* bacteriocin is associated with intestinal and systemic improvements in diet-induced obese mice and maintains epithelial barrier integrity in vitro. *Gut Microbes*, *10*(3), 382-397. doi:10.1080/19490976.2018.1534513
- Hernandez, M., Hernández-Valero, M. A., García-Prieto, C., Patterson, D. G., Hajek, R. A., Recinos, I., . . . Hawk, E. (2019). A pilot study evaluating organochlorine and organophosphate pesticide exposure in children and adolescents of Mexican descent residing in Hidalgo County, Texas. *Journal of Immigrant and Minority Health*, *21*(4), 751-760. doi:10.1007/s10903-018-0791-9
- Iacobas, S., Ede, N., & Iacobas, D. A. (2019). The gene master regulators (GMR) approach provides legitimate targets for personalized, time-sensitive cancer gene therapy. *Genes*, *10*(8) doi:10.3390/genes10080560



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- Kamaz, M., Sengupta, A., Gutierrez, A., Chiao, Y. -, & Wickramasinghe, R. (2019). Surface modification of PVDF membranes for treating produced waters by direct contact membrane distillation. *International Journal of Environmental Research and Public Health*, 16(5) doi:10.3390/ijerph16050685
- Shigemoto, Y. (2019). Examining reciprocal influence between posttraumatic stress and depressive symptoms among natural disaster survivors. *Journal of Affective Disorders*, 257, 345-351. doi:10.1016/j.jad.2019.07.056
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- Thomas, K. L. (2019). Building literacy environments to motivate african american boys to read. *Reading Teacher*, 72(6), 761-765. doi:10.1002/trtr.1784

### **Engineering**

- Akturk, A., McGarrity, J. M., Goldsman, N., Lichtenwalner, D. J., Hull, B., Grider, D., & Wilkins, R. (2019). Predicting cosmic ray-induced failures in silicon carbide power devices. *IEEE Transactions on Nuclear Science*, 66(7), 1828-1832. doi:10.1109/TNS.2019.2919334
- Bamgbose, S. O., Li, X., & Qian, L. (2019). Trajectory tracking control optimization with neural network for autonomous vehicles. *Advances in Science, Technology and Engineering Systems*, 4(1), 217-224.
- Chung, K., Yoo, H., Choe, D., & Jung, H. (2019). Blockchain network based topic mining process for cognitive manufacturing. *Wireless Personal Communications*, 105(2), 583-597. doi:10.1007/s11277-018-5979-8
- Feng, M., Qian, L., & Xu, H. (2019). Multi-robot enhanced MANET intelligent routing at uncertain and vulnerable tactical edge. Paper presented at the *Proceedings - IEEE Military Communications Conference MILCOM, , 2019-October* 389-394. doi:10.1109/MILCOM.2018.8599800
- Hanna, S. H. S., Obiomon, P., Osborne-Lee, I. W., Cesaretti, G. P., & Misso, R. (2019). Global solar energy availability model and use in relationship to ecological human imprint: Economic sustainability impact and assessment. *Renewable Energy and Power Quality Journal*, 17, 522-529. doi:10.24084/repqj17.363
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- Johnson, P., Yang, Y., Uboh, U., Ren, R., Carnegie, C. -, Russell, S., . . . Hosang, M. (2019). An innovative new approach to animal care. Paper presented at the *GHTC 2018 - IEEE Global Humanitarian Technology Conference, Proceedings*, doi:10.1109/GHTC.2018.8601912
- Kim, H. -, Kim, M. -, & Choe, D. -. (2019). Structural health monitoring of towers and blades for floating offshore wind turbines using operational modal analysis and modal properties with numerical-sensor signals. *Ocean Engineering*, 188 doi:10.1016/j.oceaneng.2019.106226
- Liu, Y., & Li, N. (2019). Retrieving hidden friends: A collusion privacy attack against online friend search engine. *IEEE Transactions on Information Forensics and Security*, 14(4), 833-847. doi:10.1109/TIFS.2018.2866309
- Mustakin, Z., Manzur, S., Choudhury, T., Rahman, F., Chellappan, S., & Alim Al Islam, A. B. M. (2019). Super-savior: An independent open platform wearable for generating emergency alarms. Paper presented at the *Proceedings of 2018 5th International Conference on Networking, Systems and Security, NSysS 2018*, doi:10.1109/NSysS.2018.8631372
- Norouzi, A., Habibi, H., Nazari, B., Noh, S. J., Seo, D. -, & Zhang, Y. (2019). Toward parsimonious modeling of frequency of areal runoff from heavy-to-extreme precipitation in large urban areas under changing conditions: A derived moment approach. *Stochastic Environmental Research and Risk Assessment*, 33(7), 1263-1281. doi:10.1007/s00477-019-01698-8
- Nurain, N., Talukder, B. M. S. B., Choudhury, T., Tairin, S., Ferdousi, M., Naznin, M., & Al Islam, A. B. M. A. (2019). Exploring network-level performances of wireless nanonetworks utilizing gains of different types of nano-antennas with different materials. *Wireless Networks*, doi:10.1007/s11276-019-01977-w
- Park, J., Lee, D., & Sutradhar, A. (2019). Topology optimization of fixed complete denture framework. *International Journal for Numerical Methods in Biomedical Engineering*, 35(6) doi:10.1002/cnm.3193
- Tang, K., Kim, Y. -, Chang, J., Mayes, R. T., Gabitto, J., Yiacoumi, S., & Tsouris, C. (2019). Seawater desalination by over-potential membrane capacitive deionization: Opportunities and hurdles. *Chemical Engineering Journal*, 357, 103-111. doi:10.1016/j.cej.2018.09.121
- Yang, B., Cao, X., Basse, J., Li, X., Kroecker, T., & Qian, L. (2019). Computation offloading in multi-access edge computing networks: A multi-task learning approach. Paper presented at the *IEEE International Conference on Communications, , 2019-May* doi:10.1109/ICC.2019.8761212
- Yang, B., Cao, X., Han, Z., & Qian, L. (2019). A machine learning enabled MAC framework for heterogeneous internet-of-things networks. *IEEE Transactions on Wireless Communications*, 18(7), 3697-3712. doi:10.1109/TWC.2019.2917131



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Zhou, Y., Cui, S., & Wang, Y. (2019). Development of machine learning based recommendation engine for embedded programmer. Paper presented at the *ICEIEC 2019 - Proceedings of 2019 IEEE 9th International Conference on Electronics Information and Emergency Communication*, 634-637. doi:10.1109/ICEIEC.2019.8784659

### **Chemical Engineering**

Amarasekara, A. S., Wiredu, B., Grady, T. L., Obregon, R. G., & Margetic, D. (2019). Solid acid catalyzed aldol dimerization of levulinic acid for the preparation of C10 renewable fuel and chemical feedstocks. *Catalysis Communications*, 124, 6-11. doi:10.1016/j.catcom.2019.02.022

Ciftja, O. (2019). Origin of the anomalous size-dependent increase of capacitance in boron nitride-graphene nanocapacitors. *RSC Advances*, 9(14), 7849-7853. doi:10.1039/C9RA00614A

Gabitto, J., Custelcean, R., & Tsouris, C. (2019). Simulation of carbon dioxide absorption by amino acids in two-phase batch and bubble column reactors. *Separation Science and Technology (Philadelphia)*, 54(13), 2013-2025. doi:10.1080/01496395.2019.1609030

Gabitto, J., & Tsouris, C. (2019). Determination of reactive mass transfer coefficients for CO<sub>2</sub> absorption predictions. *Separation Science and Technology (Philadelphia)*, 54(13), 2026-2033. doi:10.1080/01496395.2019.1603240

Gabitto, J., & Tsouris, C. (2019). Modeling sulfur poisoning of palladium membranes used for hydrogen separation. *International Journal of Chemical Engineering*, 2019. doi:10.1155/2019/9825280

Hada, M., Ikeda, H., Rhone, J. R., Beitman, A. J., Plante, I., Souda, H., . . . Takahashi, A. (2019). Increased chromosome aberrations in cells exposed simultaneously to simulated microgravity and radiation. *International Journal of Molecular Sciences*, 20(1) doi:10.3390/ijms20010043

Kasturi, A., Ladshaw, A., Yiacoumi, S., Gabitto, J., Garrabrant, K., Custelcean, R., & Tsouris, C. (2019). CO<sub>2</sub> absorption from simulated flue gas in a bubble column. *Separation Science and Technology (Philadelphia)*, 54(13), 2034-2046. doi:10.1080/01496395.2019.1617745

Li, R., Zhan, S., Chen, G., Jin, Y., Yu, B., Zhao, J., . . . Fan, H. (2019). Equilibrium solubility, model correlation, and solvent effect of indole-3-acetic acid in twelve pure solvents. *Journal of Chemical and Engineering Data*, 64(4), 1802-1808. doi:10.1021/acs.jced.8b01265

Li, R., Zhou, Z., Chen, J., Wang, S., Zheng, J., Chu, C., . . . Han, D. (2019). The improved hydrodechlorination catalytic reactions by concerted efforts of ionic liquid and activated carbon support. *New Journal of Chemistry*, 43(17), 6659-6665. doi:10.1039/c9nj00273a

Neelgund, G. M., & Oki, A. (2019). Cobalt phthalocyanine-sensitized graphene-ZnO composite: An efficient near-infrared-active photothermal agent. *ACS Omega*, 4(3), 5696-5704. doi:10.1021/acsomega.8b03222



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### **Computer Science**

Abdelmoamen, A., Wang, D., & Jamali, N. (2019). *Approaching actor-level resource control for akka* doi:10.1007/978-3-030-10632-4\_7

Chung, K., Yoo, H., Choe, D., & Jung, H. (2019). Blockchain network based topic mining process for cognitive manufacturing. *Wireless Personal Communications*, 105(2), 583-597. doi:10.1007/s11277-018-5979-8

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Li, B., Qian, L., Qiao, D., & Shao, S. (2019). Editorial: MAC for the next generation networks in unlicensed band. *Mobile Networks and Applications*, doi:10.1007/s11036-018-1199-4

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Liu, Y., & Li, N. (2019). Retrieving hidden friends: A collusion privacy attack against online friend search engine. *IEEE Transactions on Information Forensics and Security*, 14(4), 833-847. doi:10.1109/TIFS.2018.2866309

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Mustakin, Z., Manzur, S., Choudhury, T., Rahman, F., Chellappan, S., & Alim Al Islam, A. B. M. (2019). Super-savior: An independent open platform wearable for generating emergency alarms. Paper presented at the *Proceedings of 2018 5th International Conference on Networking, Systems and Security, NSysS 2018*, doi:10.1109/NSysS.2018.8631372

Njaka, A. C., Li, N., & Li, L. (2019). Voice controlled smart mirror with multifactor authentication. Paper presented at the *2018 IEEE International Smart Cities Conference, ISC2 2018*, doi:10.1109/ISC2.2018.8656932



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- Nurain, N., Talukder, B. M. S. B., Choudhury, T., Tairin, S., Ferdousi, M., Naznin, M., & Al Islam, A. B. M. A. (2019). Exploring network-level performances of wireless nanonetworks utilizing gains of different types of nano-antennas with different materials. *Wireless Networks*, doi:10.1007/s11276-019-01977-w
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- Amarasekara, A. S., Garcia-Obergon, R., & Thompson, A. K. (2019). Vanillin-based polymers: IV. hydrovanilloin epoxy resins. *Journal of Applied Polymer Science*, 136(4) doi:10.1002/app.47000
- Amarasekara, A. S., Wiredu, B., Grady, T. L., Obregon, R. G., & Margetic, D. (2019). Solid acid catalyzed aldol dimerization of levulinic acid for the preparation of C10 renewable fuel and chemical feedstocks. *Catalysis Communications*, 124, 6-11. doi:10.1016/j.catcom.2019.02.022
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- Ciftja, O. (2019). Exact results for a quantum hall state with broken rotational symmetry. *Journal of Physics and Chemistry of Solids*, 130, 256-262. doi:10.1016/j.jpcs.2019.02.021
- Ciftja, O. (2019). Origin of the anomalous size-dependent increase of capacitance in boron nitride-graphene nanocapacitors. *RSC Advances*, 9(14), 7849-7853. doi:10.1039/C9RA00614A
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- Zhou, G., Chen, W., Zhang, S., Liu, X., Yang, Z., Ge, X., & Fan, H. -. (2019). A newly designed carbohydrate-derived alkylamine promotes ullmann type C-N coupling catalyzed by copper in water. *Synlett*, 30(2), 193-198. doi:10.1055/s-0037-1611695

### **Environmental Sciences**

- Amarasekara, A. S., & Deng, F. (2019). Acidic ionic liquid catalyzed liquefaction of untreated switchgrass biomass in acetone and Pd-Ia(OTf)<sub>3</sub> catalyzed reduction of the products. *Biomass and Bioenergy*, 127 doi:10.1016/j.biombioe.2019.105260
- Awal, R., Fares, A., & Habibi, H. (2019). Optimum turf grass irrigation requirements and corresponding water- energy-CO<sub>2</sub> nexus across harris county, texas. *Sustainability (Switzerland)*, 11(5) doi:10.3390/su11051440
- Babayev, M., Du, H., Botlaguduru, V. S. V., & Kommalapati, R. R. (2019). Zwitterion-modified ultrafiltration membranes for permian basin produced water pretreatment. *Water (Switzerland)*, 11(8) doi:10.3390/w11081710
- Fernando, H., Ju, H., Kakumanu, R., Bhopale, K. K., Croisant, S., Elferink, C., . . . Ansari, G. A. S. (2019). Distribution of petrogenic polycyclic aromatic hydrocarbons (PAHs) in seafood following deepwater horizon oil spill. *Marine Pollution Bulletin*, 145, 200-207. doi:10.1016/j.marpolbul.2019.05.015





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