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Dr. Qiming Shen is currently a postdoctoral fellow in Dr. Xing-Fang Li's group in the Department of Laboratory Medicine and Pathology at the Faculty of Medicine and Dentistry, University of Alberta. He earned his B.Sc. in Chemistry from the University of Alberta in 2017 and subsequently completed his PhD in Chemistry at the same institution in 2023.

His research focuses on investigating disinfection byproducts (DBPs) formed during water treatment processes as well as identifying the precursors to DBPs in source water. In a recent publication, he characterized reactive organic amines in source water, which have the potential to form toxic nitrogenous disinfection byproducts (N-DBPs) during drinking water treatment.

## Publications:

1. Chau, K. M.; Wawryk, N. J.; Shen, Q.; Craven, C. B.; Carroll, K.; Li, X.-F., Effect of spring runoff on 2, 6-dichloro-1, 4-benzoquinone formation during water treatment. *J. Environ. Sci.* **2025**, *153*, 182-190.
2. Fang, C.; Shen, Q.; Zhang, Y.; Kanemaru, K.; Serpe, M. J., Light-degradable nanocomposite hydrogels for antibacterial wound dressing applications. *J. Mater. Chem. B* **2024**, *12*, (19), 4686-4697.
3. Hossain, F.; Shen, Q.; Balasuriya, N.; Law, J. L. M.; Logan, M.; Houghton, M.; Tyrrell, D. L.; Joyce, M. A.; Serpe, M. J., Utilization of a glucometer test strip and enzymatic reactions to quantify anti-SARS-CoV-2 spike RBD IgG antibody and SARS-CoV-2 virus in saliva and serum. *Anal. Chem.* **2023**, *95*, (19), 7620-7629.
4. Shen, Q.; Fang, C.; Hu, L.; Serpe, M. J., Fluorescent Nile blue-functionalized poly (N-isopropylacrylamide) microgels responsive to temperature and polyamines. *SmartMat* **2024**, *5*, (2), e1254.
5. Shen, Q.; Fang, C.; Serpe, M. J., Microgel-based etalon immunoassay for IgG detection. *Anal. Bioanal. Chem.* **2023**, *415*, (23), 5645-5656.
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9. Shu, T.; Hu, L.; Shen, Q.; Jiang, L.; Zhang, Q.; Serpe, M. J., Stimuli-responsive polymer-based systems for diagnostic applications. *J. Mater. Chem. B* **2020**, *8*, (32), 7042-7061.
10. Shu, T.; Shen, Q.; Su, L.; Zhang, X.; Serpe, M. J., In situ synthesis of CuS nanoparticle-doped poly (N-isopropylacrylamide)-based microgels for near-infrared triggered photothermal therapy. *ACS Applied Nano Materials* **2018**, *1*, (4), 1776-1783.
11. Shu, T.; Shen, Q.; Wan, Y.; Zhang, W.; Su, L.; Zhang, X.; Serpe, M. J., Silver nanoparticle-loaded microgel-based etalons for H<sub>2</sub>O<sub>2</sub> sensing. *RSC Adv.* **2018**, *8*, (28), 15567-15574.
12. Shu, T.; Shen, Q.; Zhang, X.; Serpe, M. J., Stimuli-responsive polymer/nanomaterial hybrids for sensing applications. *Analyst* **2020**, *145*, (17), 5713-5724.
13. Zhang, D.; Craven, C. B.; Shen, Q.; Chu, W.; Li, X.-F., Swimming pool disinfection byproducts: Analytical characterization of precursors, formation and occurrence, health risks, and future needs. *TrAC, Trends Anal. Chem.* **2023**, 117385.
14. Zhao, T.; Wawryk, N. J.; Xing, S.; Low, B.; Li, G.; Yu, H.; Wang, Y.; Shen, Q.; Li, X.-F.; Huan, T., ChloroDBPFinder: Machine Learning-Guided Recognition of Chlorinated Disinfection Byproducts from Nontargeted LC-HRMS Analysis. *Anal. Chem.* **2024**, *96*, (6), 2590-2598.