Bing Xu, Ph.D.
Professor of Chemistry
Department of Chemistry
Brandeis University
Waltham, MA 02454
USA
Email: bxu@brandeis.edu

After receiving his BS and MS in 1987 and 1990, Bing Xu obtained his PhD in 1996. Notably, Xu lab pioneered the integration of enzyme transformation and self-assembly for developing molecular biomaterials, synthesized the first dimeric nanoparticle consisting of quantum dot and nanomagnet for exploring nanoscience inside cells, reported the first case of using dopamine to anchor molecules on iron oxide surface, and demonstrated the first case of using enzymatic transformation and self-assembly to inhibit cancer cells selectively. Being identified on the Thomson Reuters "highly-cited researchers 2014&2015" list, Bing Xu currently is a professor in the Department of Chemistry, Brandeis University, and his research focuses on the applications of molecular engineering in materials, biology, and medicine.

Representative Publications:

1. Li, J.; Kuang, Y.; Shi, J. F.; Zhou, J.; Medina, J. E.; Zhou, R.; Yuan, D.; Yang, C. H.; Wang, H. M.; Yang, Z. M.; Liu, J. F.; Dinulescu, D. M.* and Xu, B.* "Enzyme-Instructed Intracellular Molecular Self-assembly to Boost Activity of Cisplatin against Drug-Resistant Ovarian Cancer Cells" *Angew. Chem. Intl. Ed.*, **2015**, *54*, 13307-13311.

2. Zhou, J.; Du, X. W.; Li, J.; Yamagata, N.; Xu, B.* "Taurine Boosts Cellular Uptake of Small D-peptides for Enzyme-Instructed Intracellular Molecular Self-assembly", *J. Am. Chem. Soc.* **2015**, *137*, 10040-10043.

3. Zhou, J.; Xu, B.* "Enzyme-Instructed Self-Assembly (EISA): A Multi-Step Process for Potential Cancer Therapy" *Bioconjugate Chem.*, **2015**, *26*, 987-999.

4. Kuang, Y.; Shi, J. F.; Li, J.; Yuan, D.; Alberti, K. A.; Xu, Q. B.; Xu, B.* "Pericellular Hydrogel/Nanonets Inhibit Cancer Cells" *Angew. Chem. Intl. Ed.*, **2014**, *53*, 8104-8107.

5. Yang, Z. M.; Gu, H. W.; Fu, D. G.; Gao, P.; Lam, K. J. K.; Xu, B. "Enzymatic Formation of Supramolecular Hydrogels" *Adv. Mater*. **2004**, *16*, 1440-1444.