



김 현 철 책임연구원
Hyun-Chul Kim, PhD
Division of Biotechnology

Office: R2-504

Phone: +82-53-785-2540

Email: kimhc@dgist.ac.kr

Lab: R2-510 바이오재료 연구실

Website:

Education

- 2006: POSTECH (Ph.D. in Environmental Polymer Chemistry and Physics)
- 2002: POSTECH (M.S. in Environmental Polymer Chemistry and Physics)
- 2000: SungKyunKwan Unvi (B.S. in Chemical Engineering)

Professional Experience

- 2006-2016: Senior Researcher, DGIST, Korea
- 2006-2008: Adjunct Assistant Professor, KNU, Korea
- 2019-2020: Visiting Researcher, PAL, Korea
- 2016-present: Senior Researcher, DGIST, Korea

Research Interests

- Synthesis and functionalization of polymeric biomaterials
- Stimuli responsive nano-drug carrier system based on polymeric biomaterials
- Bio-application of organic/inorganic conjugated nano-materials

Research Publication (selected)

1. Dual-responsive gemini micelles for efficient delivery of anticancer therapeutics. Young In Choi, Eun-sook Choi, Kwan Ho Mun, Se Guen Lee, Sung Jun Lee, Sang Won Jeong, Seung Woo Lee, **Hyun-Chul Kim**. *Polymers*, 2019, **11**, 604
2. Prolonged heating of Fe₃O₄-Au hybrid nanoparticles in a radiofrequency solenoid coil. Sang-Im Park, Seok-Hwan Chung, **Hyun-Chul Kim**, Se Geun Lee, Sung Jun Lee, Hyunmin Kim, Hoyoung Kim, Sang Won Jeong. *Colloids and Surfaces A*, 2018, **538**, 304.
3. Highly stable and reduction responsive micelles from a novel polymeric surfactant with a repeating disulfide-based gemini structure for efficient drug delivery. **Hyun-Chul Kim**, Eunjo Kim, Tae-Lin Ha, Se Geun Lee, Sung Jun Lee, Sang Won Jeong. *Polymer*, 2017, **133**, 102
4. Folic Acid-Functionalized Polythiophene for Targeted Cellular Imaging. **Hyun-Chul Kim**, Eunjo Kim, Se Guen Lee, Sung Jun Lee, Sang Won Jeong, Tae-Lin Ha, Boram Lee, and Seung Woo Lee, *J. Nanosci. Nanotechnol.* 2016, **16**, 189.
5. Bioreducible Micelles Self-Assembled from Poly(ethylene glycol)-Cholesteryl Conjugate as a Drug Delivery Platform, Chulsu Baek, Tae-Lin Ha, Eunjo Kim, Sang Won Jeong, Se Guen Lee, Sung Jun Lee and **Hyun-Chul Kim**, *Polymers*, 2015, **7**, 2245.)
6. Magnetic nanoparticle-conjugated polymeric micelles for combined hyperthermia and chemotherapy. **Hyun-Chul Kim**, Eunjo Kim, Sang Won Jeong, Tae-Lin Ha, Sang-Im Park, Se Guen Lee, Sung Jun Lee and Seung Woo Lee, *Nanoscale*, 2015, **7**, 16470.

Patents (selected)

1. 이중 반응형 양친매성 화합물, 이의 제조방법 및 이를 이용한 약물 전달체(10-2051593)
2. 약물전달체용 양친매성 멀티 제미니 고분자 및 이를 포함하는 약물 전달체(10-1820494)
3. 양친매성 고분자, 이의 제조방법 및 이를 포함하는 기능성 복합체 (10-1710702)

Technology Transfer

1. 약물 전달을 위한 코어 크로스링킹된 고분자 마이셀 화합물 및 이의 제조방법(2020, (주)협진화학)
2. 생분자 고정화 링커기술(2008, (주)케이맥)

Awards & Honors (selected)

1. DGIST 설립4주년 공로상(2008)
2. DGIST 우수직원상(2006)