

## Sarah Ko

PATENT AGENT

Patents and  
Innovations  
Washington, D.C.

sko@wsgr.com  
202-802-7866



## FOCUS AREAS

Intellectual Property  
Patents and Innovations

## EXPERIENCE

Sarah Ko is a patent agent in the Washington, D.C., office of Wilson Sonsini Goodrich & Rosati, where she is a member of the patents and innovations practice. Her practice focuses on patent prosecution and freedom to operate for clients in a variety of fields.

Prior to joining Wilson Sonsini, Sarah was a research fellow at the Institute for Basic Science (IBS) in Korea and also worked as a postdoctoral researcher at the National Institute of Standards and Technology after she received her Ph. D. at Purdue University. She was a recipient of the “Outstanding Researcher Award” at the IBS.

Sarah has extensive research experience in designing and constructing various nanostructures using DNA and RNA molecules for their biomedical and optical applications. Her research projects include but are not limited to, the construction of cancer cell-targeting drug carriers and the control of the fluorescence lifetime of quantum dots using DNA nanostructures. She was also a lead scientist in the development of synthetic strategies for porous carbon materials. She has one patent and several research papers published as a lead author in high-profile scientific journals.

## CREDENTIALS

### Education

- Ph.D., Chemistry, Purdue University
- M.S., Chemistry, Ewha Womans University
- B.S., Chemistry, Ewha Womans University

### Admissions

- U.S. Patent and Trademark Office

## INSIGHTS

### Select Publications

- Co-author, “Variation of nitrogen species in zeolite-templated carbon by low-temperature carbonization of pyrrole and the effect on oxygen reduction activity,” 7 *J. Mater. Chem. A* 8353-8360, 2019
- Lead author, “Ultramicroporous carbon synthesis using lithium-ion effect in ZSM-5 zeolite template,” 30 *Chem. Mater.* 6513-6520, 2018
- Lead author, “Nanocage-confined synthesis of fluorescent polycyclic aromatic hydrocarbons in zeolite,” 140 *J. Am. Chem. Soc.* 7101-7107, 2018
- Lead author, “Qdot Fluorescence Lifetime Engineering by DNA Origami Constructs,” 52, *Angew. Chem. Int. Ed.* 1193-1197, 2013
- Lead author, “Nanomanufacturing with DNA Origami: Factors Affecting the Kinetics and Yield of Qdot Binding,” 22, *Adv. Funct. Mater.* 1015-1023, 2012

- Lead author, “Synergistic Self-assembly of RNA and DNA Molecules,” 2 *Nature Chem.* 1050-1055, 2010
- Co-author, “Surface-Mediated DNA Self-Assembly,” 131, *J. Am. Chem. Soc.* 13248-13249, 2009
- Co-author, “Symmetry Controls the Face Geometry of DNA Polyhedra,” 131 *J. Am. Chem. Soc.* 1413-1415, 2009
- Lead author, “Reversible switching of pRNA activity on the DNA packaging motor of bacteriophage,” 130 *J. Am. Chem. Soc.* 17684-17687, 2008

## TECHNICAL FLUENCY

---

### Biological Sciences and Biotechnology

- Bioconjugation

### Therapeutics and Drug Discovery

- Drug delivery
- Small molecules

### Diagnostics and Medical Devices

- Biomedical devices
- Medical devices

### Chemistry and Material Science

- Catalysis
- Chemistry
- Green chemistry
- Materials chemistry
- Nanochemistry

### Engineering and Technology

- Materials science

### Miscellaneous

- Fluorescence microscopy