



Electrochemical
Energy
Laboratory

Seung-Ho Yu, Ph.D.

Associate Professor
Department of Chemical and Biological Engineering
Korea University
145 Anam-Ro, Seongbuk-Gu, Seoul 02841, Korea
E-mail: seunghoyu@korea.ac.kr
Tel: +82-2-3290-3297
Mobile: +82-10-3133-1999
yu.korea.ac.kr [[Go to website](#)]



RESEARCH EXPERIENCE

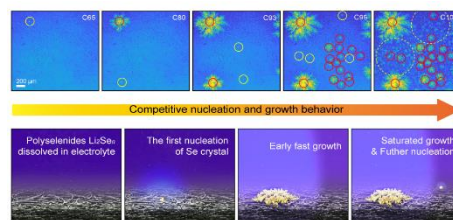
Department of Chemical and Biological Engineering, Korea University, Associate Professor	Sep. 2021-present
Department of Chemical and Biological Engineering, Korea University, Assistant Professor	Mar. 2019-Aug. 2021
Department of Chemistry and Chemical Biology, Cornell University, Postdoctoral Associate	Sep. 2015-Feb. 2019
Center for Nanoparticle Research, Institute for Basic Science (IBS), Senior Researcher	Sep. 2014-Aug. 2015
Research Institute of Advanced Materials, Seoul National University, Researcher	Sep. 2013-Aug. 2014

EDUCATION

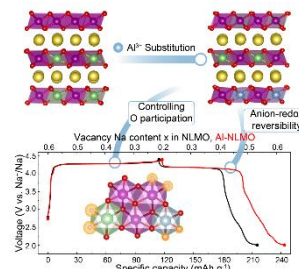
School of Chemical and Biological Engineering, Seoul National University, Ph. D. Thesis: Studies on Li-rich layered oxide and iron oxide as electrode materials for lithium ion batteries (Aug.2013)	Sep. 2008-Aug. 2013
School of Chemical and Biological Engineering, Seoul National University, B. S.	Mar. 2004-Aug. 2008

SELECT PUBLICATIONS

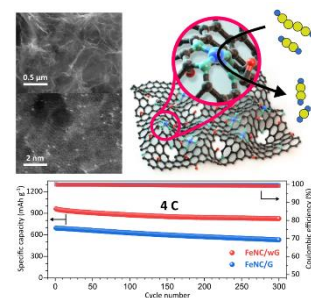
1. Ji Hyun Um[‡], Aihua Jin[‡], Xin Huang, Jeesoo Seok, Seong Soo Park, Janghyuk Moon, So Hee Kim, Hyun Sik Kim, Sung-Pyo Cho, Héctor D. Abruña* and Seung-Ho Yu*, Competitive nucleation and growth behavior in Li-Se batteries, *Energy Environ. Sci.*, 2022, *In press*. [[Go to article](#)] Online publication date: 15 Feb. 2022 (**Corresponding author**)



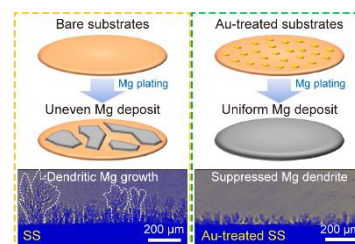
2. Geon-Hee Yoon[‡], Sojung Koo[‡], Sung-Joon Park, Jaewoon Lee, Chanwoo Koo, Seok Hyun Song, Tae-Yeol Jeon, Hyungsub Kim, Jong-Seong Bae, Won-Jin Moon, Sung-Pyo Cho, Duho Kim* and Seung-Ho Yu*, Enabling stable and nonhysteretic oxygen redox capacity in Li-excess Na layered oxides, *Adv. Energy Mater.*, 2022, 2103384. [[Go to article](#)] Online publication date: 8 Feb. 2022 (**Corresponding author**)



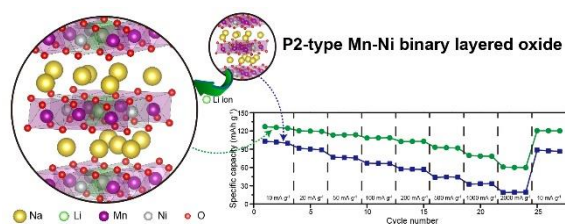
3. Jiheon Kim[‡], Seong-Jun Kim[‡], Euiyeon Jung[‡], Dong Hyeon Mok, Vinod K. Paidi, Jaewoo Lee, Hyeon Seok Lee, Yunseo Jeoun, Wonjae Ko, Heejong Shin, Byoung-Hoon Lee, Shin-Yeong Kim, Hyunjoong Kim, Ji Hwan Kim, Sung-Pyo Cho, Kug-Seung Lee, Seoin Back*, Seung-Ho Yu*, Yung-Eun Sung* and Taeghwan Hyeon*, Atomic structure modification of Fe-N-C catalysts via morphology engineering of graphene for enhanced conversion kinetics of lithium-sulfur batteries, *Adv. Funct. Mater.*, 2022, 9, 10838-10845. [[Go to article](#)] Online publication date: 26 Jan. 2022 (**Corresponding author**)



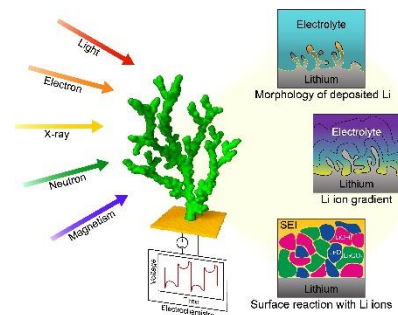
4. Jin Hwan Kwak[‡], Yunseo Jeoun[‡], Si Hyoung Oh, Seungho Yu, Jae-Hong Lim, Yung-Eun Sung*, Seung-Ho Yu* and Hee-Dae Lim*, Operando visualization of morphological evolution in Mg metal anode: insights into dendrite suppression for stable Mg metal batteries, *ACS Energy Lett.*, 2022, 7, 162-170. [[Go to article](#)] Online publication date: 8 Dec. 2021 (**Corresponding author**)



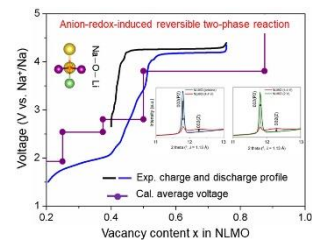
5. Sung-Joon Park[‡], Jaewoon Lee[‡], In-Hwan Ko, Sojung Koo, Seok Hyun Song, Chanwoo Koo, Geon-Hee Yoon, Tae-Yeol Jeon, Hyungsub Kim, Duho Kim* and Seung-Ho Yu*, *Energy Storage Mater.*, 2021, 42, 97-108. [[Go to article](#)] Online publication date: 18 July 2021 (**Corresponding author**)



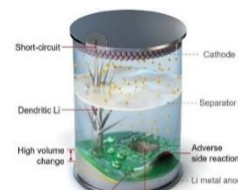
6. Ji Hyun Um and Seung-Ho Yu*, Unraveling the mechanisms of lithium metal plating/stripping via in-situ/operando analytical techniques, *Adv. Energy Mater.*, 2021, 2003004. [[Go to article](#)] Online publication date: 28 Dec 2020 (**Corresponding author**)



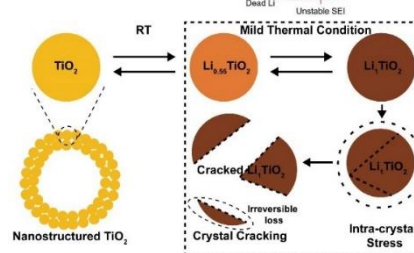
7. Seok Mun Kang‡, Duho Kim‡, Kug-Seung Lee, Min-Seob Kim, Aihua Jin, Jae-Hyuk Park, Chi-Yeong Ahn, Tae-Yeol Jeon, Young Hwa Jung, **Seung-Ho Yu***, Junyoung Mun* and Yung-Eun Sung*, Structural and thermodynamic understanding in Mn-based sodium layered oxides during anionic redox, *Adv. Sci.* 2020, 2001263 [[Go to article](#)] Online publication date: 2 July 2020 (**Corresponding author**)



8. Ji Hyun Um‡, Kookhan Kim‡, Jungjin Park‡, Yung-Eun Sung* and **Seung-Ho Yu***, Revisiting the strategies for stabilizing lithium metal anodes, *J. Mater. Chem. A, In Press.* [[Go to article](#)] Online publication date: 25 Jun 2020 (**Corresponding author**)

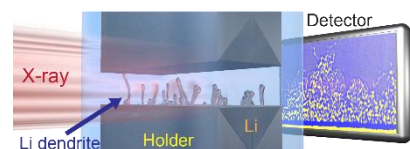


9. Min-Seob Kim‡, Byoung-Hoon Lee‡, Jae-Hyuk Park‡, Hyeon Seok Lee, Wytse Hooch Antink, Euiyeon Jung, Jiheon Kim, Tae Yong Yoo, Chan Woo Lee, Chi-Yeong Ahn, Seok Mun Kang, Jinsol Bok, Wonjae Ko, Xiao Wang, Sung-Pyo Cho, **Seung-Ho Yu***, Taeghwan Hyeon* and Yung-Eun Sung*, Operando identification of chemical and structural origin of Li-ion battery aging at near-ambient temperature, *J. Am. Chem. Soc.*, 2020, 142, 13406–13414. [[Go to article](#)] Online publication date: 1 July 2020 (**Corresponding author**)

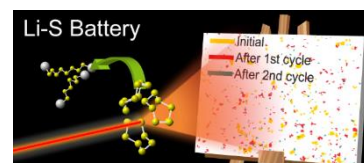


10. **Seung-Ho Yu‡**, Michael J. Zachman‡, Kibum Kang, Hui Gao, Xin Huang, Francis J. DiSalvo, Jiwoong Park, Lena F. Kourkoutis* and Héctor D. Abruña*, Atomic-scale visualization of electrochemical lithiation processes in monolayer MoS₂ by cryogenic electron microscopy, *Adv. Energy Mater.* 2019, 1902773. (‡ equal contribution) [[Go to article](#)] Online publication date: 11 Nov 2019 (**First author**)

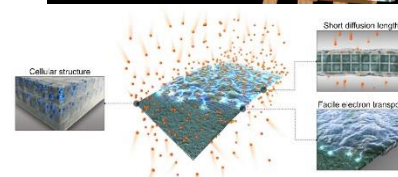
11. **Seung-Ho Yu‡**, Xin Huang‡, Joel D. Brock* and Héctor D. Abruña*, Regulating key variables and visualizing lithium dendrite growth: an *operando* X-ray study, *J. Am. Chem. Soc.* 2019, 141, 8441–8449. (‡ equal contribution) [[Go to article](#)] Online publication date: 7 May 2019 (**First author**)



12. **Seung-Ho Yu‡**, Xin Huang‡, Kathleen Schwarz, Rong Huang, Tomás A. Arias, Joel D. Brock* and Héctor D. Abruña*, Direct visualization of sulfur cathodes: new insights into Li-S batteries via *operando* X-ray based methods, *Energy Environ. Sci.* 2018, 11, 202–210. (‡ equal contribution) [[Go to article](#)] (**First author**)



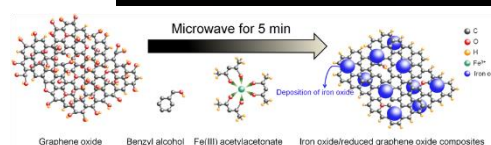
13. **Seung-Ho Yu‡**, Dong Jun Lee‡, Mihyun Park, Soon Gu Kwon, Hyeon Seok Lee, Aihua Jin, Kug-Seung Lee, Ji Eun Lee, Myoung Hwan Oh, Kisuk Kang, Yung-Eun Sung* and Taeghwan Hyeon*, Hybrid cellular nanosheets for high-performance lithium ion battery anodes, *J. Am. Chem. Soc.* 2015, 137, 11954–11961. (‡ equal contribution) [[Go to article](#)] (**First author**)



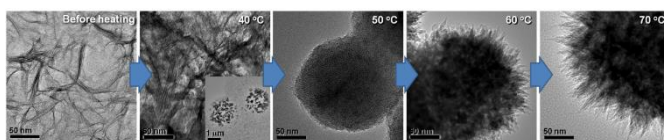
14. **Seung-Ho Yu**, Xinran Feng, Na Zhang, Jeesoo Seok and Héctor D. Abruña*, Understanding conversion-type electrodes for lithium rechargeable batteries, *Acc. Chem. Res.* 2018, 51, 273–281. [[Go to article](#)] (**First author**)



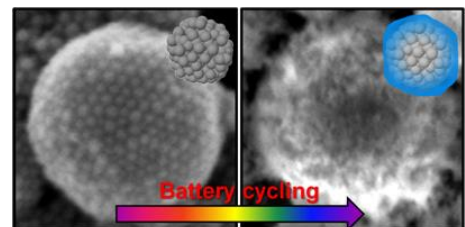
15. **Seung-Ho Yu**, Donato E. Conte, Seunghwan Baek, Dong-Chan Lee, Seung-Keun Park, Kyung Jae Lee, Yuanzhe Piao, Yung-Eun Sung* and Nicola Pinna*, Structure-properties relationship in iron oxide-reduced graphene oxide nanostructures for Li-ion batteries, *Adv. Funct. Mater.* 2013, 23, 4293–4305. [[Go to article](#)] (**First author**)



16. Ji Eun Lee[‡], **Seung-Ho Yu[‡]**, Dong Jun Lee, Dong-Chan Lee, Sang Ihn Han, Yung-Eun Sung* and Taeghwan Hyeon*, Facile and economical synthesis of hierarchical carbon-coated magnetite nanocomposite particles and their applications in lithium ion battery anodes, *Energy Environ. Sci.* 2012, 5, 9528–9533. ([‡] equal contribution) [[Go to article](#)] (**First author**)

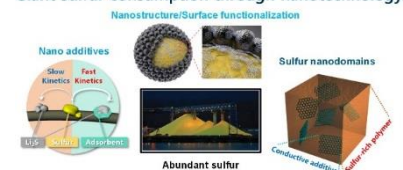


17. Soo Hong Lee[‡], **Seung-Ho Yu[‡]**, Ji Eun Lee, Aihua Jin, Dong Jun Lee, Nohyun Lee, Hyungyung Jo, Kwangsoo Shin, Tae-Young Ahn, Young-Woon Kim, Heeman Choe, Yung-Eun Sung* and Taeghwan Hyeon*, Self-assembled Fe₃O₄ nanoparticle clusters as high performance anodes for lithium-ion batteries via geometric confinement, *Nano Lett.* 2013, 13(9), 4249–4256. ([‡] equal contribution) [[Go to article](#)] (**First author**)

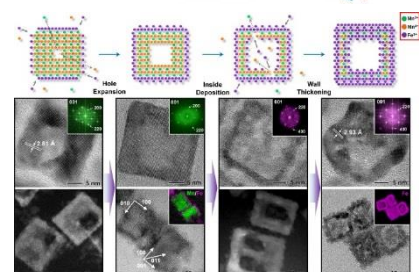


Giant sulfur consumption through nanotechnology

18. Jungjin Park, **Seung-Ho Yu*** and Yung-Eun Sung*, Design of structural and functional nanomaterials for lithium-sulfur batteries, *Nano Today* 2018, 18, 35–64. (co-corresponding author) [[Go to article](#)] (**Corresponding author**)



19. Myoung Hwan Oh, Taekyung Yu, **Seung-Ho Yu**, Byungkwon Lim, Kyung-Tae Ko, Marc-Georg Willinger, Dong-Hwa Seo, Byung Hyo Kim, Min Gee Cho, Jae-Hoon Park, Kisuk Kang, Yung-Eun Sung, Nicola Pinna* and Taeghwan Hyeon*, Galvanic replacement reactions in metal oxide nanocrystals, *Science* 2013, 340, 964–968. [[Go to article](#)] (**Co-author**)



FULL PUBLICATIONS (h-index:37 i10-index:72, from [Google](#) 2022-06-03)

1. **Seung-Ho Yu**, Andrea Pucci, Tobias Hertrich, Marc-Georg Willinger, Seung-Hwan Baek, Yung-Eun Sung and Nicola Pinna*, Surfactant-free nonaqueous synthesis of lithium titanium oxide (LTO) nanostructures for lithium ion battery applications, *J. Mater. Chem.* 2011, 21, 806–810. [[Go to article](#)] Online publication date: 15 Nov 2010 (**First author**)
2. Catherine Marichy, Nicola Donato, Marc-Georg Willinger, Mariangela Latino, Dmitry Karpinsky, **Seung-Ho Yu**, Giovanni Neri and Nicola Pinna*, Tin dioxide sensing layer grown on tubular nanostructures by a non-aqueous atomic layer deposition process, *Adv. Funct. Mater.* 2011, 21 (4), 658–666. [[Go to article](#)] Online publication date: 13 Dec 2010 (**Co-author**)
3. Tae-Yeol Jeon, Nicola Pinna, Sung Jong Yoo, **Seung-Ho Yu**, Sang-Kyung Kim, Seongyop Lim, Donghyun Peck, Doo-Hwan Jung and Yung-Eun Sung*, Enhanced activity of Pt-based electrocatalysts for oxygen reduction via a selective Pt deposition process, *J. Electroanal. Chem.* 2011, 662, 70–79. [[Go to article](#)] Online publication date: 29 Mar 2011 (**Co-author**)
4. Mihyun Park, Nohyun Lee, Seung Hong Choi, Kwangjin An, **Seung-Ho Yu**, Jeong Hyun Kim, Seung-Hae Kwon, Dokyoon Kim, Hyoungsu Kim, Sung-Il Baek, Tae-Young Ahn, Ok Kyu Park, Jae Sung Son, Yung-Eun Sung, Young-Woon Kim, Zhongwu Wang, Nicola Pinna and Taeghwan Hyeon*, Large-scale synthesis of ultrathin manganese oxide nanoplates and their applications to T1 MRI contrast agents, *Chem. Mater.* 2011, 23 (14), 3318–3324. [[Go to article](#)] Online publication date: 30 Jun 2011 (**Co-author**)
5. Bo Yun Kim, **Seung-Ho Yu**, Hyun Sik Kim, Dong-Chan Lee, In-Bo Shim, Sean E. Derosa, Yung-Eun Sung and Jeffrey Pyun*, Morphological conversion of dipolar core-shell Au-Co nanoparticles into beaded Au-Co₃O₄ nanowires, *J. Mater. Chem.* 2011, 21, 14163–14166. [[Go to article](#)] Online publication date: 07 Jul 2011 (**Co-author**)
6. Seunghwan Baek, **Seung-Ho Yu**, Seung-Keun Park, Andrea Pucci, Catherine Marichy, Dong-Chan Lee, Yung-Eun Sung, Yuanzhe Piao and Nicola Pinna*, A one-pot microwave-assisted non-aqueous sol-gel approach to metal oxide/graphene nanocomposites for Li-ion batteries, *RSC Adv.* 2011, 1, 1687–1690. [[Go to article](#)] Online publication date: 27 Oct 2011 (**Co-author**)
7. Seung-Keun Park‡, **Seung-Ho Yu**‡, Nicola Pinna, Seunghee Woo, Byungchul Jang, Young-Hoon Chung, Yong-Hun Cho, Yung-Eun Sung* and Yuanzhe Piao*, A facile hydrazine-assisted hydrothermal method for the deposition of monodisperse SnO₂ nanoparticles onto graphene for lithium ion batteries, *J. Mater. Chem.* 2012, 22, 2520–2525. (‡ equal contribution) [[Go to article](#)] Online publication date: 21 Dec 2011 (**First author**)
8. Wan-Geun La, Suk Ho Bhang, Jung-Youn Shin, Hee Hun Yoon, Jooyeon Park, Hee Seok Yang, **Seung-Ho Yu**, Yung-Eun Sung and Byung-Soo Kim*, 3,4-Dihydroxy-L-phenylalanine as a cell adhesion molecule in serum-free cell culture, *Biotechnology Progress* 2012, 28 (4), 1055–1060. [[Go to article](#)] Online publication date: 18 Jun 2012 (**Co-author**)
9. Tae-Yeol Jeon, Nicola Pinna, Sung Jong Yoo, Docheon Ahn, Sun Hee Choi, Marc-Georg Willinger, Yong-Hun Cho, Kug-Seung Lee, Hee-Young Park, **Seung-Ho Yu** and Yung-Eun Sung*, Selective deposition of Pt onto supported metal clusters for fuel cell electrocatalysts, *Nanoscale* 2012, 4, 6461–6469. [[Go to article](#)] Online publication date: 17 Aug 2012 (**Co-author**)
10. Ji Eun Lee‡, **Seung-Ho Yu**‡, Dong Jun Lee, Dong-Chan Lee, Sang Ihn Han, Yung-Eun Sung* and Taeghwan Hyeon*, Facile and economical synthesis of hierarchical carbon-coated magnetite nanocomposite particles and their applications in lithium ion battery anodes, *Energy Environ. Sci.* 2012, 5, 9528–9533. (‡ equal contribution) [[Go to article](#)] Online publication date: 13 Sep 2012 (**First author**)
11. **Seung-Ho Yu**, Junyoung Shin, Jung-Joon Kim, Kyung Jae Lee and Yung-Eun Sung*, Vertically aligned iron oxide nanotube arrays and porous magnetite nanostructure as three-dimensional electrodes for lithium ion microbatteries, *RSC Adv.* 2012, 2, 12177–12181. [[Go to article](#)] Online publication date: 05 Oct 2012 (**First author**)
12. Seung-Keun Park, **Seung-Ho Yu**, Seunghee Woo, Jeonghyun Ha, Junyoung Shin, Yung-Eun Sung* and Yuanzhe Piao*, A facile and green strategy for the synthesis of MoS₂ nanospheres with excellent Li-ion storage properties, *CrystEngComm.* 2012, 14, 8323–8325. [[Go to article](#)] Online publication date: 18 Oct 2012 (**Co-author**)
13. Seung-Keun Park, **Seung-Ho Yu**, Seunghee Woo, Bo Quan, Dong-Chan Lee, Min Kun Kim, Yung-Eun Sung* and Yuanzhe Piao*, A simple L-cysteine-assisted method for the growth of MoS₂ nanosheets on carbon nanotubes for high-performance lithium ion batteries, *Dalton Trans.* 2013, 42, 2399–2405. [[Go to article](#)] Online publication date: 15 Nov 2012 (**Co-author**)
14. **Seung-Ho Yu**, Taeho Yoon, Junyoung Mun, Sangjin Park, Yoon-Sok Kang, Jin-Hwan Park, Seung M. Oh* and Yung-

- Eun Sung*, Continuous activation of Li_2MnO_3 component upon cycling in $\text{Li}_{1.167}\text{Ni}_{0.233}\text{Co}_{0.467}\text{Mo}_{0.033}\text{O}_2$ cathode material for lithium ion batteries, *J. Mater. Chem. A* 2013, 1, 2833–2839. [[Go to article](#)] Online publication date: 20 Dec 2012 (**First author**)
15. **Seung-Ho Yu**, Mohammadreza Shokouhimehr, Taeghwan Hyeon and Yung-Eun Sung*, Iron hexacyanoferrate nanoparticles as cathode materials for lithium and sodium rechargeable batteries, *ECS Electrochem. Lett.* 2013, 2(4), A39–A41. [[Go to article](#)] Online publication date: 06 Feb 2013 (**First author**)
 16. Jaehan Lee, **Seung-Ho Yu**, Choonsoo Kim, Yung-Eun Sung* and Jeyong Yoon*, Highly selective lithium recovery from brine using $\lambda\text{-MnO}_2\text{-Ag}$ battery, *Phys. Chem. Chem. Phys.* 2013, 15, 7690–7695. [[Go to article](#)] Online publication date: 27 Mar 2013 (**Co-author**)
 17. **Seung-Ho Yu**, Donato E. Conte, Seunghwan Baek, Dong-Chan Lee, Seung-Keun Park, Kyung Jae Lee, Yuanzhe Piao, Yung-Eun Sung* and Nicola Pinna*, Structure-properties relationship in iron oxide-reduced graphene oxide nanostructures for Li-ion batteries, *Adv. Funct. Mater.* 2013, 23, 4293–4305. [[Go to article](#)] Online publication date: 05 Apr 2013 (**First author**)
 18. Myoung Hwan Oh, Taekyung Yu, **Seung-Ho Yu**, Byungkwon Lim, Kyung-Tae Ko, Marc-Georg Willinger, Dong-Hwa Seo, Byung Hyo Kim, Min Gee Cho, Jae-Hoon Park, Kisuk Kang, Yung-Eun Sung, Nicola Pinna* and Taeghwan Hyeon*, Galvanic replacement reactions in metal oxide nanocrystals, *Science* 2013, 340, 964–968. [[Go to article](#)] Online publication date: 24 May 2013 (**Co-author**)
 19. Mohammadreza Shokouhimehr, **Seung-Ho Yu**, Dong-Chan Lee, Daishun Ling, Taeghwan Hyeon and Yung-Eun Sung*, Metal hexacyanoferrate nanoparticles as electrode materials for lithium ion batteries, *Nanosci. Nanotechnol Lett.* 2013, 5, 770–774. [[Go to article](#)] Online publication date: 01 Jul 2013 (**Co-author**)
 20. Jeonghyun Ha, Seung-Keun Park, **Seung-Ho Yu**, Aihua Jin, Byungchul Jang, Sungyool Bong, In Kim, Yung-Eun Sung* and Yuanzhe Piao*, A chemically activated graphene-encapsulated LiFePO_4 composite for high-performance lithium ion batteries, *Nanoscale* 2013, 5, 8647–8655. [[Go to article](#)] Online publication date: 12 Jul 2013 (**Co-author**)
 21. Soo Hong Lee‡, **Seung-Ho Yu**‡, Ji Eun Lee, Aihua Jin, Dong Jun Lee, Nohyun Lee, Hyungyung Jo, Kwangsoo Shin, Tae-Young Ahn, Young-Woon Kim, Heeman Choe, Yung-Eun Sung* and Taeghwan Hyeon*, Self-assembled Fe_3O_4 nanoparticle clusters as high performance anodes for lithium-ion batteries via geometric confinement, *Nano Lett.* 2013, 13(9), 4249–4256. (‡ equal contribution) [[Go to article](#)] Online publication date: 31 Jul 2013 (**First author**)
 22. Kyung Jae Lee, **Seung-Ho Yu**, Jung-Joon Kim, Dae-Hyeok Lee, Jungjin Park, Soon Sung Suh, Jong Soo Cho and Yung-Eun Sung*, $\text{Si}_7\text{Ti}_4\text{Ni}_4$ as a buffer material for Si and its electrochemical study for lithium ion batteries, *J. Power sources* 2014, 246, 729–735. [[Go to article](#)] Online publication date: 20 Aug 2013 (**Co-author**)
 23. Dong Young Chung, Seung-Keun Park, Young-Hoon Chung, **Seung-Ho Yu**, Dong-Hee Lim, Namgee Jung, Hyung Chul Ham, Hee-Young Park, Yuanzhe Piao, Sung Jong Yoo* and Yung-Eun Sung*, Edge-exposed MoS_2 nano-assembled structures as efficient electrocatalyst for hydrogen evolution reaction, *Nanoscale* 2014, 6, 2131–2136. [[Go to article](#)] Online publication date: 01 Oct 2013 (**Co-author**)
 24. Jung-Joon Kim, Taeho Yoon, Kyung Jae Lee, **Seung-Ho Yu**, Seung Mo Oh and Yung-Eun Sung*, The effects of radio frequency sputtering of TiO_2 on $\text{Li}[\text{Li}_{0.07}\text{Ni}_{0.38}\text{Co}_{0.15}\text{Mn}_{0.4}]\text{O}_2$ cathode for lithium ion batteries, *J. Nanosci. Nanotechnol.* 2013, 13, 7924–7931. [[Go to article](#)] Online publication date: 01 Dec 2013 (**Co-author**)
 25. Seung-Keun Park, Aihua Jin, **Seung-Ho Yu**, Jeonghyun Ha, Byungchul Jang, Sungyool Bong, Seunghee Woo, Yung-Eun Sung* and Yuanzhe Piao*, *In situ* hydrothermal synthesis of Mn_3O_4 nanoparticles on nitrogen-doped graphene as high-performance anode materials for lithium ion batteries, *Electrochim. Acta* 2014, 120, 452–459. [[Go to article](#)] Online publication date: 22 Dec 2013 (**Co-author**)
 26. Hyun Sik Kim, **Seung-Ho Yu**, Yung-Eun Sung* and Soon Hyung Kang*, Carbon treated self-ordered TiO_2 nanotube arrays with enhanced lithium-ion intercalation performance, *J. Alloys Compd.* 2014, 597, 275–281. [[Go to article](#)] Online publication date: 10 Feb 2014 (**Co-author**)
 27. **Seung-Ho Yu**, Mihyun Park, Hyun Sik Kim, Aihua Jin, Mohammadreza Shokouhimehr, Tae-Young Ahn, Young-Woon Kim, Taeghwan Hyeon* and Yung-Eun Sung*, Two-dimensional assemblies of ultrathin titanate nanosheets for lithium ion battery anodes, *RSC Adv.* 2014, 4, 12087–12093. [[Go to article](#)] Online publication date: 18 Feb 2014 (**First author**)
 28. Hyun Sik Kim, **Seung-Ho Yu**, Yong-Hun Cho, Soon Hyung Kang* and Yung-Eun Sung*, TiO_2 -core/Sn-shell nanotube arrays based on monolithic negative electrode for Li-ion batteries, *Electrochim. Acta* 2014, 130, 600–605. [[Go to article](#)] Online publication date: 23 Mar 2014 (**Co-author**)

29. **Seung-Ho Yu**, Xiaohui Guo, Daishun Ling, Dong Young Chung, Aihua Jin, Mohammadreza Shokouhimehr, Taeghwan Hyeon* and Yung-Eun Sung*, Facile synthesis of nanostructured carbon nanotube/iron oxide hybrids for lithium-ion battery anodes, *RSC Adv.* 2014, 4, 37365–37370. [[Go to article](#)] Online publication date: 19 Jun 2014 (**First author**)
30. Bo Quan, **Seung-Ho Yu**, Dong Young Chung, Aihua Jin, Ji Hyun Park, Yung-Eun Sung* and Yuanzhe Piao*, Single source precursor-based solvothermal synthesis of heteroatom-doped graphene and its energy storage and conversion applications, *Sci. Rep.* 2014, 4, 5639. [[Go to article](#)] 10 Jul 2014 (**Co-author**)
31. Dong Young Chung, Kyung Jae Lee, **Seung-Ho Yu**, Minhyoung Kim, Stanfield Youngwon Lee, Ok-Hee Kim, Hyun-Jin Park, and Yung-Eun Sung*, Alveoli-inspired facile transport structure of N-doped porous carbon for electrochemical energy applications, *Adv. Energy Mater.* 2015, 5, 1401309. [[Go to article](#)] Online publication date: 06 Oct 2014 (**Co-author**)
32. Young Min Kim, Jihoon Ahn, **Seung-Ho Yu**, Dong Young Chung, Kyung Jae Lee, Jin-Kyu Lee and Yung-Eun Sung*, Titanium silicide coated porous silicon nanospheres as anode materials for lithium ion batteries, *Electrochim. Acta.* 2015, 151, 256–262. [[Go to article](#)] Online publication date: 06 Nov 2014 (**Co-author**)
33. Ji Hyun Um, **Seung-Ho Yu**, Yong-Hun Cho* and Yung-Eun Sung*, SnO₂ nanotube arrays embedded in a carbon layer for high-performance lithium-ion battery applications, *New J. Chem.* 2015, 39, 2541–2546. [[Go to article](#)] Online publication date: 05 Jan 2015 (**Co-author**)
34. Joohyun Lim, Ji Hyun Um, Jihoon Ahn, **Seung-Ho Yu**, Yung-Eun Sung* and Jin-Kyu Lee*, Soft template strategy to synthesize iron oxide-titania yolk-shell nanoparticles as high-performance anode materials for lithium ion battery applications, *Chem. Eur. J.* 2015, 21, 7954–7961. [[Go to article](#)] Online publication date: 02 Apr 2015 (**Co-author**)
35. Yun Ok Kim, **Seung-Ho Yu**, Kwang-Soon Ahn, Sang Kwon Lee and Soon Hyung Kang*, Photoelectrochemical behavior of compact and inverse opal tungsten trioxide films: surface area and charge transfer properties, *J. Electrochem. Soc.* 2015, 162(7), H449–H452. [[Go to article](#)] Online publication date: 03 Apr 2015 (**Co-author**)
36. Jin Soo Kang, Min-Ah Park, Jae-Yup Kim, Sung Ha Park, Dong Young Chung, **Seung-Ho Yu**, Jin Kim, Jongwoo Park, Jung-Woo Choi, Kyung Jae Lee, Juwon Jeong, Min Jae Ko, Kwang-Soon Ahn and Yung-Eun Sung*, Reactively sputtered nickel nitride as electrocatalytic counter electrode for dye- and quantum dot-sensitized solar cells, *Sci. Rep.* 2015, 5, 10450. [[Go to article](#)] Online publication date: 21 May 2015 (**Co-author**)
37. Yun Ok Kim, **Seung-Ho Yu**, Kwang-Soon Ahn, Sang Kwon Lee and Soon Hyung Kang*, Enhancing the photoresponse of electrodeposited WO₃ film: structure and thickness effect, *J. Electroanal. Chem.* 2015, 752, 25–32. [[Go to article](#)] Online publication date: 03 Jun 2015 (**Co-author**)
38. Joonhee Moon, Jungjin Park, Cheolho Jeon, Jouhahn Lee, Insu Jo, **Seung-Ho Yu**, Sung-Pyo Cho, Yung-Eun Sung* and Byung Hee Hong*, An electrochemical approach to graphene oxide coated sulfur for long cycle life, *Nanoscale* 2015, 7, 13249–13255. [[Go to article](#)] Online publication date: 21 Jul 2015 (**Co-author**)
39. **Seung-Ho Yu**‡, Dong Jun Lee‡, Mihyun Park, Soon Gu Kwon, Hyeon Seok Lee, Aihua Jin, Kug-Seung Lee, Ji Eun Lee, Myoung Hwan Oh, Kisuk Kang, Yung-Eun Sung* and Taeghwan Hyeon*, Hybrid cellular nanosheets for high-performance lithium ion battery anodes, *J. Am. Chem. Soc.* 2015, 137, 11954–11961. (‡ equal contribution) [[Go to article](#)] Online publication date: 01 Sep 2015 (**First author**)
40. Haena Yim, **Seung-Ho Yu**, So Yeon Yoo, Yung-Eun Sung* and Ji-Won Choi*, Li-storage of calcium niobates for lithium ion batteries, *J. Nanosci. Nanotechnol.* 2015, 15, 8103–8107. [[Go to article](#)] 01 Oct 2015 (**Co-author**)
41. **Seung-Ho Yu**‡, Bo Quan‡, Aihua Jin, Kug-Seung Lee, Soon Hyung Kang, Kisuk Kang, Yuanzhe Piao* and Yung-Eun Sung*, Hollow nanostructured metal silicates with tunable properties for lithium ion battery anodes, *ACS Appl. Mater. Interfaces* 2015, 7, 25725–25732. (‡ equal contribution) [[Go to article](#)] Online publication date: 05 Nov 2015 (**First author**)
42. In-Hwan Ko, Seong-Jun Kim, Joohyun Lim, **Seung-Ho Yu**, Jihoon Ahn, Jin-Kyu Lee* and Yung-Eun Sung*, Effect of PEDOT:PSS coating on manganese oxide nanowires for lithium ion battery anodes, *Electrochim. Acta* 2016, 187, 340–347. [[Go to article](#)] Online publication date: 17 Nov 2015 (**Co-author**)
43. Kwi Ryong Kim‡, **Seung-Ho Yu**‡, and Yung-Eun Sung*, Enhancement of cycle performance of Li-S batteries by redistribution of sulfur, *Chem. Comm.* 2016, 52, 1198–1201. (‡ equal contribution) [[Go to article](#)] Online publication date: 17 Nov 2015 (**First author**)
44. **Seung-Ho Yu**‡, Soo Hong Lee‡, Dong Jun Lee‡, Yung-Eun Sung* and Taeghwan Hyeon*, Conversion reaction-based oxide nanomaterials for lithium ion battery anodes, Invited review paper, *Small*, 2016, 12, 2146–2172 (‡ equal

- contribution) [[Go to article](#)] Online publication date: 02 Dec 2015 (**First author**)
45. **Seung-Ho Yu**‡, Bora Lee‡, Sinho Choi, Soojin Park, Byung Hee Hong* and Yung-Eun Sung*, Enhancement of electrochemical properties by polysulfide trapping in a graphene-coated sulfur cathode on patterned current collector, *Chem. Comm.* 2016, 52, 3203–3206. (‡ equal contribution) [[Go to article](#)] Online publication date: 19 Jan 2016 (**First author**)
 46. Joohyun Lim, Ji Hyun Um, Kyung Jae Lee, **Seung-Ho Yu**, Young-Jae Kim, Yung-Eun Sung* and Jin-Kyu Lee*, Simple size control of TiO₂ nanoparticles and their electrochemical performance: emphasizing the contribution of the surface area to lithium storage at high-rates, *Nanoscale* 2016, 8, 5688-5695. [[Go to article](#)] Online publication date: 22 Feb 2016 (**Co-author**)
 47. Jungjin Park, Joonhee Moon, Chunjoong Kim, Jin Hyoun Kang, Eunhak Lim, Jaesung Park, Kyung Jae Lee, **Seung-Ho Yu**, Jung-Hye Seo, Jouhahn Lee, Jiyoung Heo, Nobuo Tanaka, Sung-Pyo Cho, Jeffrey Pyun, Jordi Cabana, Byung Hee Hong* and Yung-Eun Sung*, Graphene quantum dots: structural integrity and oxygen functional groups for high sulfur/sulfide utilization in lithium sulfur batteries, *NPG Asia Mater.* 2016, 8, e272. [[Go to article](#)] Online publication date: 20 May 2016 (**Co-author**)
 48. Kwi Royung Kim, Kug-Seung Lee, Chi-Yeong Ahn, **Seung-Ho Yu** and Yung-Eun Sung*, Discharging a Li-S battery with ultra-high sulphur content cathode using a redox mediator, *Sci. Rep.* 2016, 6, 32433. [[Go to article](#)] Online publication date: 09 Aug 2016 (**Co-author**)
 49. Min-Kum Kim‡, **Seung-Ho Yu**‡, Aihua Jin, Jin Kim, In-Hwan Ko, Kug-Seung Lee, Junyoung Mun* and, Yung-Eun Sung*, Bismuth oxide as a high capacity anode material for sodium-ion batteries, *Chem. Comm.* 2016, 52, 11775–11778. (‡ equal contribution) [[Go to article](#)] Online publication date: 30 Aug 2016 (**First author**)
 50. Dong Jun Lee‡, **Seung-Ho Yu**‡, Hyeon Seok Lee, Aihua Jin, Ji Eun Lee, Yung-Eun Sung* and Taeghwan Hyeon*, Facile synthesis of metal hydroxide nanoplates and their applications to lithium ion battery anodes, *J. Mater. Chem. A.* 2017, 5, 8744–8751. (‡ equal contribution) [[Go to article](#)] Online publication date: 07 Apr 2017 (**First author**)
 51. Jin Soo Kang, Yoonsook Noh, Jin Kim, Hyeelim Choi, Tae Hwa Jeon, Docheon Ahn, Jae-Yup Kim, **Seung-Ho Yu**, Hyeji Park, Jun-Ho Yum, Wonyong Choi, David C. Dunand, Heeman Choi* and Yung-Eun Sung*, Iron oxide photoelectrode with multidimensional architecture for highly efficient photoelectrochemical water splitting, *Angew. Chem. Int. Ed.* 2017, 56, 6583–6588. [[Go to article](#)] Online publication date: 04 May 2017 (**Co-author**)
 52. Jin Soo Kang, Hyeelim Choi, Jin Kim, Hyeji Park, Jae-Yup Kim, Jung-Woo Choi, **Seung-Ho Yu**, Kyung Jae Lee, Yun Sik Kang, Sun Ha Park, Yong-Hun Cho, Jun-Ho Yum, David C. Dunand, Heeman Choi* and Yung-Eun Sung*, Multidimensional anodized titanium foam photoelectrode for efficient utilization of photons in mesoscopic solar cells, *Small* 2017, 13, 1701458. [[Go to article](#)] Online publication date: 19 Jul 2017 (**Co-author**)
 53. **Seung-Ho Yu**‡, Xin Huang‡, Kathleen Schwarz, Rong Huang, Tomás A. Arias, Joel D. Brock* and Héctor D. Abruña*, Direct visualization of sulfur cathodes: new insights into Li-S batteries via *operando* X-ray based methods, *Energy Environ. Sci.* 2018, 11, 202–210. (‡ equal contribution) [[Go to article](#)] Online publication date: 19 Dec 2017 (**First author**)
 54. Jungjin Park, **Seung-Ho Yu*** and Yung-Eun Sung*, Design of structural and functional nanomaterials for lithium-sulfur batteries, *Nano Today* 2018, 18, 35–64. (co-corresponding author) [[Go to article](#)] Online publication date: 10 Jan 2018 (**Corresponding author**)
 55. **Seung-Ho Yu**, Xinran Feng, Na Zhang, Jeeseo Seok and Héctor D. Abruña*, Understanding conversion-type electrodes for lithium rechargeable batteries, *Acc. Chem. Res.* 2018, 51, 273–281. [[Go to article](#)] Online publication date: 26 Jan 2018 (**First author**)
 56. Bo Quan‡, Aihua Jin‡, **Seung-Ho Yu**, Seok Mun Kang, Juwon Jeong, Héctor D. Abruña, Longyi Jin, Yuanzhe Piao*, Yung-Eun Sung*, Solvothermal-derived S-doped graphene as an anode material for sodium-ion batteries, *Adv. Sci.* 2018, 5, 1700880. (‡ equal contribution) [[Go to article](#)] Online publication date: 14 Feb 2018 (**Co-author**)
 57. **Seung-Ho Yu**‡, Aihua Jin‡, Xin Huang, Yao Yang, Rong Huang, Joel D. Brock, Yung-Eun Sung* and Héctor D. Abruña*, SnS/C nanocomposites for high-performance sodium ion battery anodes, *RSC Adv.* 2018, 8, 23847–23853. (‡ equal contribution) [[Go to article](#)] Online publication date: 29 Jun 2018 (**First author**)
 58. Aihua Jin‡, Mi-Ju Kim‡, Kug-Seung Lee, **Seung-Ho Yu*** and Yung-Eun Sung*, Spindle-like Fe₇S₈/N-doped carbon nanohybrids for high-performance sodium ion battery anodes, *Nano Res.* 2019, 12, 695–700. (‡ equal contribution) [[Go to article](#)] Online publication date: 10 Jan 2019 (**Corresponding author**)

59. Yao Yang, Ying Wang, Yin Xiong, Xin Huang, Luxi Shen, Rong Huang, Hongsen Wang, James P. Pastore, **Seung-Ho Yu**, Li Xiao, Joel D. Brock, Lin Zhuang* and Héctor D. Abruña*, *In situ* X-ray absorption spectroscopy of a synergistic Co-Mn oxide catalyst for the oxygen reduction reaction, *J. Am. Chem. Soc.* 2019, 141, 1463–1466. [[Go to article](#)] Online publication date: 15 Jan 2019 (**Co-author**)
60. Min-Kun Kim, Jin Kim, **Seung-Ho Yu**, Junyoung Mun* and Yung-Eun Sung*, A facile process for surface modification with lithium ion conducting material of Li_2TiF_6 for LiMn_2O_4 in lithium ion batteries, *J. Electrochem. Sci. Technol.* 2019, 10, 223–230. [[Go to article](#)] Online publication date: 1 April 2019 (**Co-author**)
61. **Seung-Ho Yu**‡, Xin Huang‡, Joel D. Brock* and Héctor D. Abruña*, Regulating key variables and visualizing lithium dendrite growth: an *operando* X-ray study, *J. Am. Chem. Soc.* 2019, 141, 8441–8449. (‡ equal contribution) [[Go to article](#)] Online publication date: 7 May 2019 (**First author**)
62. Na Zhang, **Seung-Ho Yu*** and Héctor D. Abruña*, Uniform lithium deposition on N-doped carbon-coated current collectors, *Chem. Comm.* 2019, 55, 10124–10127. [[Go to article](#)] Online publication date: 26 Jul 2019 (**Corresponding author**)
63. Aihua Jin‡, **Seung-Ho Yu**‡, Jae-Hyuk Park, Seok Mun Kang, Tae-Yeol Jeon, Junyoung Mun* and Yung-Eun Sung*, Iron sulfides with dopamine-derived carbon coating as superior performance anodes for sodium-ion batteries, *Nano Res.* 2019, 12, 2609–2613. (‡ equal contribution) [[Go to article](#)] Online publication date: 15 Aug 2019 (**First author**)
64. Na Zhang, Yao Yang, Xinran Feng, **Seung-Ho Yu**, Jeesoo Seok, David A. Muller and Héctor D. Abruña*, Sulfur encapsulation by MOF-derived CoS_2 embedded in carbon hosts for high-performance Li-S batteries, *J. Mater. Chem. A* 2019, 7, 21128–21139. [[Go to article](#)] Online publication date: 22 Aug 2019 (**Co-author**)
65. **Seung-Ho Yu**‡, Michael J. Zachman‡, Kibum Kang, Hui Gao, Xin Huang, Francis J. DiSalvo, Jiwoong Park, Lena F. Kourkoutis* and Héctor D. Abruña*, Atomic-scale visualization of electrochemical lithiation processes in monolayer MoS_2 by cryogenic electron microscopy, *Adv. Energy Mater.* 2019, 1902773. (‡ equal contribution) [[Go to article](#)] Online publication date: 11 Nov 2019 (**First author**)
66. In-Hwan Ko, Aihua Jin, Min Kun Kim, Jae-Hyuk Park, Hyun Sik Kim, Yung-Eun Sung* and Seung-Ho Yu*, The keys to for effective distribution of intergranular voids of peapod-like $\text{MnO}@C$ core-shell for lithium ion batteries, *J. Alloy. Compd.* 2020, 817, 152760. [[Go to article](#)] Online publication date: 23 Oct 2019 (**Corresponding author**)
67. Na Zhang, Seung-Ho Yu* and Héctor D. Abruña*, Regulating lithium nucleation and growth by zinc modified current collectors, *Nano Res.* 2020, 13, 45–51 [[Go to article](#)] Online publication date: 25 Nov 2019 (**Corresponding author**)
68. Haena Yim, Seung-Ho Yu, Seung Hyub Back, Yung-Eun Sung and Héctor D. Abruña*, Directly integrated all-solid-state flexible lithium batteries on polymer substrate, *J. Power Sources* 2020, 15, 227978 [[Go to article](#)] Online publication date: 4 March 2020 (**Co-author**)
69. Seok Mun Kang‡, Duho Kim‡, Kug-Seung Lee, Min-Seob Kim, Aihua Jin, Jae-Hyuk Park, Chi-Yeong Ahn, Tae-Yeol Jeon, Young Hwa Jung, **Seung-Ho Yu***, Junyoung Mun* and Yung-Eun Sung*, Structural and thermodynamic understanding in Mn-based sodium layered oxides during anionic redox, *Adv. Sci.* 2020, 7, 2001263 [[Go to article](#)] Online publication date: 2 July 2020 (**Corresponding author**)
70. Aihua Jin, Narae Kang, Ji Hyun Um, In-Hwan Ko, Min-Seob Kim, Kookhan Kim, So Hee Kim, **Seung-Ho Yu*** and Yung-Eun Sung*, Sn(salen)-derived SnS nanoparticles embedded in N-doped carbon for high performance lithium-ion battery anodes, *Chem. Comm.*, 2020, 56, 8095–8098. [[Go to article](#)] Online publication date: 2 Jun 2020 (**Corresponding author**)
71. Seong-Jun Kim‡, Yunseo Jeoun‡, Jungjin Park, **Seung-Ho Yu*** and Yung-Eun Sung*, Design considerations for lithium-sulfur batteries: mass transport of lithium polysulfides, *Nanoscale*, 2020, 12, 15466–15472. [[Go to article](#)] Online publication date: 22 Jun 2020 (**Corresponding author**)
72. Ji Hyun Um‡, Kookhan Kim‡, Jungjin Park‡, Yung-Eun Sung* and **Seung-Ho Yu***, Revisiting the strategies for stabilizing lithium metal anodes, *J. Mater. Chem. A*, 2020, 8, 13864–13895. [[Go to article](#)] Online publication date: 25 Jun 2020 (**Corresponding author**)
73. Min-Seob Kim‡, Byoung-Hoon Lee‡, Jae-Hyuk Park‡, Hyeon Seok Lee, Wytse Hooch Antink, Euiyeon Jung, Jiheon Kim, Tae Yong Yoo, Chan Woo Lee, Chi-Yeong Ahn, Seok Mun Kang, Jinsol Bok, Wonjae Ko, Xiao Wang, Sung-Pyo Cho, **Seung-Ho Yu***, Taeghwan Hyeon* and Yung-Eun Sung*, Operando identification of chemical and structural origin of Li-ion battery aging at near-ambient temperature, *J. Am. Chem. Soc.*, 2020, 142, 13406–13414. [[Go to article](#)] Online publication date: 1 July 2020 (**Corresponding author**)

74. Jeeso Seok, **Seung-Ho Yu*** and Héctor D, Abruña*, Operando synchrotron-based X-ray study of Prussian blue and its analogue as cathode materials for sodium-ion batteries, *J. Phys. Chem. C*, 2020, 124, 16332–16337. [[Go to article](#)] Online publication date: 6 July 2020 (**Corresponding author**)
75. Dong Young Chung, Subin Park, Hyeonju Lee, Hyungjun Kim, Young-Hoon Chung, Ji Mun Yoo, Docheon Ahn, **Seung-Ho Yu**, Kug-Seung Lee, Mahdi Ahmadi, Huanxin Ju, Héctor D. Abruña, Sung Jong Yoo*, Bongjin Simon Mun* and Yung-Eun Sung*, Activity-stability relationship in Au@Pt nanoparticles for electrocatalysis, *ACS Energy Lett.*, 2020, 5, 2827–2834. [[Go to article](#)] Online publication date: 11 Aug 2020 (**Co-author**)
76. Jeeso Seok, Na Zhang, Burak Ulgut, Aihua Jin, **Seung-Ho Yu*** and Héctor D, Abruña*, Electrolyte screening studies for Li metal batteries, *Chem. Commun.*, 2020, 56, 11883–11886. [[Go to article](#)] Online publication date: 24 Aug 2020 (**Corresponding author**)
77. Seong-Jun Kim‡, Minchul Ahn‡, Jungjin Park, Yunseo Jeoun, **Seung-Ho Yu***, Dal-Hee Min* and Yung-Eun Sung* Enhancement of performance of lithium-sulfur batteries using electrochemical impregnation of sulfur in hierarchical mesoporous carbon nanoparticles, *ChemElectroChem*, 2020, 7, 3653–3655. [[Go to article](#)] Online publication date: 26 Aug 2020 (**Corresponding author**)
78. Tae-Yeol Jeon*, **Seung-Ho Yu**, Sung Jong Yoo, Hee-Young Park and Sang Kyung Kim*, Electrochemical determination of the degree of atomic surface roughness in Pt-Ni alloy nanocatalysts for oxygen reduction reaction, *Carbon Energy*, 2021, Online published. [[Go to article](#)] Online publication date: 13 Oct 2020 (**Co-author**)
79. Shuangyan Lang, Xinran Feng, Jeeso Seok, Yao Yang, Mihail Krumov, Andrés Molina Villarino, Michael A. Lowe, **Seung-Ho Yu** and Héctor D. Abruña*, Lithium-sulfur redox: challenges and opportunities, *Curr. Opin. Electrochem.*, 2021, 25, 100652. [[Go to article](#)] Online publication date: 16 Nov 2020 (**Co-author**)
80. Ji Hyun Um and **Seung-Ho Yu***, Unraveling the mechanisms of lithium metal plating/stripping via in-situ/operando analytical techniques, *Adv. Energy Mater.*, 2021, 2003004. [[Go to article](#)] Online publication date: 28 Dec 2020 (**Corresponding author**)
81. Jae-Hyuk Park‡, In-Hwan Ko‡, Jaewoon Lee, Sangeon Park, Duho Kim*, **Seung-Ho Yu*** and Yung-Eun Sung*, Anionic redox reactions in cathodes for sodium ion batteries, *ChemElectroChem*, 2021, 8, 1-20. [[Go to article](#)] Online publication date: 22 Dec 2020 (**Corresponding author**)
82. Sunhong Min, Min Jun Ko, Hee Joon Jung, Wonsik Kim, Seong-Beom Han, Yuri Kim, Gunhyu Bae, Sungkyu Lee, Ramar Thangam, Hyojun Choi, Na Li, Jeong Eun Shin, Yoo Sang Jeon, Hyeon Su Park, Yu Jin Kim, Uday Kumar Sukumar, Jae-Jun Song, Seung-Keun Park, **Seung-Ho Yu**, Yun Chan Kang, Ki-Bum Lee, Qiang Wei, Dong-Hwee Kim, Seung Min Han, Ramasamy Paulmurugan, Young Keun Kim,* and Heemin Kang*, Remote control of time-regulated stretching of ligand-presenting nanocoils in situ regulates the cyclic adhesion and differentiation of stem cells, *Adv. Mater.*, 2021, 2008353. [[Go to article](#)] Online publication date: 02 Feb 2021 (**Co-author**)
83. Jin Hwan Kwak, Jong Chan Hyun, Jae-Ho Park, Kyung Yoon Chung, **Seung-Ho Yu**, Young Soo Yun,* and Hee-Dae Lim*, Ultra-fast and efficient calcium co-intercalation host enabled by hierarchically 3D porous carbon nanotemplates, *J. Ind. Eng. Chem.*, 2021, 96, 397-403. [[Go to article](#)] Online publication date: 09 Feb 2021 (**Co-author**)
84. Sojung Koo‡, In-Hwan Ko‡, Jaewoon Lee, Seok Mun Kang, **Seung-Ho Yu*** and Duho Kim*, Unlocking intrinsic origin of reversible oxygen redox reaction in Na-based layered oxides, *ChemElectroChem*, 2021, 12, 1464-1472. [[Go to article](#)] Online publication date: 02 March 2021 (**Corresponding author**)
85. Seongsoo Lee‡, Janghyuk Moon‡, His Muhammad Bintang, Sunghee Shin, Hun-Gi Jung, **Seung-Ho Yu**, Si Hyoung Oh, Dongmok Whang* and Hee-Dae Lim*, A phase-convertible fast ionic conductor with a monolithic plastic crystalline host, *J. Mater. Chem. A*, 2021, 9, 10838-10845. [[Go to article](#)] Online publication date: 21 April 2021 (**Co-author**)
86. Gunhyu Bae, Yoo Sang Jeon, Min Jun Ko, Yuri Kim, Seong-Beom Han, Ramar Thangam, Wonsik Kim, Hee Joon Jung, Sungkyu Lee, Hyojun Choi, Sunhong Min, Hyunsik Hong, Sangwoo Park, Seong Yeol Kim, Kapil D. Patel, Na Li, Jeong Eun Shin, Bum Chul Park, Hyeon Su Park, Jun Hwan Moon, Yu Jin Kim, Uday Kumar Sukumar, Jae-Jun Song, Soo Young Kim, Seung-Ho Yu, Yun Chan Kang, Steve Park, Seung Min Han, Dong-Hwee Kim, Ki-Bum Lee, Qiang Wei, Liming Bian, Ramasamy Paulmurugan, Young Keun Kim* and Heemin Kang*, *Adv. Funct. Mater.*, 2021, 31, 2103409. [[Go to article](#)] Online publication date: 18 June 2021 (**Co-author**)
87. Sung-Joon Park‡, Jaewoon Lee‡, In-Hwan Ko, Sojung Koo, Seok Hyun Song, Chanwoo Koo, Geon-Hee Yoon, Tae-Yeol Jeon, Hyungsub Kim, Duho Kim* and Seung-Ho Yu*, *Energy Storage Mater.*, 2021, 42, 97-108. [[Go to article](#)] Online publication date: 18 July 2021 (**Corresponding author**)

88. Seokjae Hong, Seok Hyun Song, Moses Cho, Seulgi Kim, Seung-Ho Yu, Dongju Lee and Hyungsub Kim*, Structural and chemical compatibilities of $\text{Li}_{1-x}\text{Ni}_{0.5}\text{Co}_{0.2}\text{Mn}_{0.3}\text{O}_2$ cathode material with garnet-type solid electrolyte for all-solid-state batteries, *Small*, 2021, 17, 2103306. [[Go to article](#)] Online publication date: 15 October 2021 **(Co-author)**
89. Aihua Jin‡, Sue In Chae‡, Jae-Hyuk Park, Shin-Yeong Kim, Sanghwa Lee, Hogeun Chang, Jeong Hyun Kim, Ji Hyun Um, Seung-Ho Yu*, Taeghwan Hyeon* and Yung-Eun Sung*, SnSe nanocrystals decorated on carbon nanotubes for high-performance lithium-ion battery anodes, *J. Alloys Compd.*, 2021, 892, 162057. [[Go to article](#)] Online publication date: 25 Sep. 2021 **(Corresponding author)**
90. Jeeso Seok‡, Cara N. Gannett‡, Seung-Ho Yu* and Héctor D. Abruña*, Understanding the impacts of Li stripping overpotentials at the counter electrode by three-electrode coin cell measurements, *Anal. Chem.*, 2021, 93, 15459. [[Go to article](#)] Online publication date: 9 Nov. 2021 **(Corresponding author)**
91. Hyunsik Hong, Sunhong Min, Sagang Koo, Yunjung Lee, Jinho Yoon, Woo Young Jang, Nayeon Kang, Ramar Thangam, Hyojun Choi, Hee Joon Jung, Seong-Beom Han, Qiang Wei, Seung-Ho Yu, Dong-Hwee Kim, Ramasamy Paulmurugan, Woong Kyo Jeong, Ki-Bum Lee, Taeghwan Hyeon, Dokyoon Kim* and Heemin Kang*, Dynamic ligand screening by magnetic nanoassembly modulates stem cell differentiation, *Adv. Mater.*, 2022, 34, 2105460. [[Go to article](#)] Online publication date: 16 Oct. 2021 **(Co-author)**
92. Jimin Park, Son Ha, Jae Young Jung, Jae-Hwan Hyun, Seung-Ho Yu, Hyung-Kyu Lim, Nam Dong Kim and Young Soo Yun*, Understanding the effects of interfacial lithium ion concentration on lithium metal anode, *Adv. Sci.*, 2022, 9, 2104145. [[Go to article](#)] Online publication date: 22 Dec. 2022 **(Co-author)**
93. Seongsoo Lee, Dong Woo Kang, Jin Hwan Kwak, Sunghee Shin, Jun-Woo Park, Seung-Ho Yu, Hun-Gi Jung, Byung Gon Kim* and Hee-Dae Lim*, Gold-incorporated porous hollow carbon nanofiber for reversible magnesium-metal batteries, *Chem. Eng. J.*, 2022, 431, 133968. [[Go to article](#)] Online publication date: 3 Dec. 2021 **(Co-author)**
94. Jin Hwan Kwak‡, Yunseo Jeoun‡, Si Hyoung Oh, Seungho Yu, Jae-Hong Lim, Yung-Eun Sung*, Seung-Ho Yu* and Hee-Dae Lim*, *Operando* visualization of morphological evolution in Mg metal anode: insights into dendrite suppression for stable Mg metal batteries, *ACS Energy Lett.*, 2022, 7, 162-170. [[Go to article](#)] Online publication date: 8 Dec. 2021 **(Corresponding author)**
95. Jiheon Kim‡, Seong-Jun Kim‡, Euiyeon Jung‡, Dong Hyeon Mok, Vinod K. Paidi, Jaewoo Lee, Hyeon Seok Lee, Yunseo Jeoun, Wonjae Ko, Heejong Shin, Byoung-Hoon Lee, Shin-Yeong Kim, Hyunjoong Kim, Ji Hwan Kim, Sung-Pyo Cho, Kug-Seung Lee, Seoin Back*, Seung-Ho Yu*, Yung-Eun Sung* and Taeghwan Hyeon*, Atomic structure modification of Fe-N-C catalysts via morphology engineering of graphene for enhanced conversion kinetics of lithium-sulfur batteries, *Adv. Funct. Mater.*, 2022, 9, 10838-10845. [[Go to article](#)] Online publication date: 26 Jan. 2022 **(Corresponding author)**
96. Geon-Hee Yoon‡, Sojung Koo‡, Sung-Joon Park, Jaewoon Lee, Chanwoo Koo, Seok Hyun Song, Tae-Yeol Jeon, Hyungsub Kim, Jong-Seong Bae, Won-Jin Moon, Sung-Pyo Cho, Duho Kim* and Seung-Ho Yu*, Enabling stable and nonhysteretic oxygen redox capacity in Li-excess Na layered oxides, *Adv. Energy Mater.*, 2022, 2103384. [[Go to article](#)] Online publication date: 8 Feb. 2022 **(Corresponding author)**
97. Jeeso Seok‡, Jea-Hwan Hyun‡, Aihua Jin, Ji Hyun Um, Héctor D. Abruña* and Seung-Ho Yu*, Visualization of sodium metal anode via operando X-ray and optical microscopy: controlling the morphological evolution of sodium metal plating, *ACS Appl. Mater. Interfaces*, 2022, 14, 10438-10446. [[Go to article](#)] Online publication date: 17 Feb. 2022 **(Corresponding author)**
98. Meihua Hong‡, Subin Lee‡, Van-Chuong Ho, Daon Lee, Seung-Ho Yu* and Junyoung Mun*, Unraveling the dynamic interfacial behavior of LiCoO_2 at various voltages with lithium bis(oxalato)borate for lithium-ion batteries, *ACS Appl. Mater. Interfaces*, 2022, 14, 10267-10276. [[Go to article](#)] Online publication date: 21 Feb. 2022 **(Corresponding author)**
99. Ji Hyun Um‡, Aihua Jin‡, Xin Huang, Jeeso Seok, Seong Soo Park, Janghyuk Moon, So Hee Kim, Hyun Sik Kim, Sung-Pyo Cho, Héctor D. Abruña* and Seung-Ho Yu*, Competitive nucleation and growth behavior in Li-Se batteries, *Energy Environ. Sci.*, 2022, 15, 1493-1502. [[Go to article](#)] Online publication date: 15 Feb. 2022 **(Corresponding author)**
100. Juhyung Choi‡, Aihua Jin‡, Hyun Dong Jung‡, Dongjin Ko, Ji Hyun Um, Yoon Jeong Choi, So Hee Kim, Seoin Back*, Seung-Ho Yu* and Yuangzhe Piao*, Nitrogen and sulfur co-doped graphene nanoribbons with well-ordered stepped edges for high-performance potassium-ion battery anodes, *Energy Storage Mater.*, 2022, 48, 325-334. [[Go to article](#)] Online publication date: 26 March 2022 **(Corresponding author)**

101. Minhyung Kwon, Jina Lee, Sunghyun Ko, Gukhyun Lim, Seung-Ho Yu, Jihyun Hong, Minah Lee*, Stimulating Cu-Zn alloying for compact Zn metal growth towards high energy aqueous batteries and hybrid supercapacitors, *Energy Environ. Sci.*, 2022, accepted. [[Go to article](#)] Online publication date: 09 May 2022 **(Co-author)**
102. Man Ho Han‡, Young-Jin Ko‡, Byoung Koun Min, Seung-Ho Yu, Chang Hyuck Choi, Jae-Young Choi, Woong Hee Lee* and Hyung-Suk Oh*, Unraveling the role of introduced W in oxidation tolerance for Pt-based catalysts via on-line inductive coupled plasma-mass spectrometry, *Electrochem. Commun.*, 2022, 139, 107301. [[Go to article](#)] Online publication date: 24 May 2022 **(Co-author)**
103. Jungjin Park‡, Seong-Jun Kim‡, Kookhan Kim, Yunseo Jeoun, Seung-Ho Yu, Chunjoong Kim*, Yung-Eun Sung* and Elton J. Cairns*, Understanding about functionalized porous carbon via scanning transmission x-ray microscopy (STXM) for high sulfur utilization in lithium-sulfur batteries, *Nano Energy*, 2022, accepted. **(Co-author)**
104. Yunseo Jeoun‡, Kookhan Kim‡, Shin-Yeong Kim, Si-Hwan Lee, Sung-Ho Huh, So Hee Kim, Xin Huang, Yung-Eun Sung*, Héctor D. Abruña* and Seung-Ho Yu*, Surface roughness-independent homogeneous lithium plating in synergetic conditioned electrolyte, *ACS Energy Lett*, 2022, accepted. **(Corresponding author)**
105. Jin Hwan Kwak‡, Sunghee Shin‡, Yunseo Jeoun, Yongheum Lee, Seungho Yu, Young Soo Yun, Yung-Eun SUnG, Seung-Ho Yu and Hee-Dae Lim*, Facile synthesis of three-dimensional conducting scaffold with magnesiophilic decorations toward non-dendritic Mg-metal batteries, *J. Power Sources*, 2022, accepted. **(Co-author)**