

Jung Ho KIM

2021 Highly Cited Researchers (cross-field)

Position: Professor / Energy Conversion Group / ISEM / AIIM

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Place: Australian Institute for Innovative Materials, University of Wollongong,
North Wollongong, NSW 2500, Australia



Professional Qualifications:

1994-1998 B.S., Metallurgical and Materials Engineering, Sungkyunkwan University, South Korea

1998-2000 M.S., Advanced Materials Engineering, Sungkyunkwan University, South Korea

2000-2005 Ph.D., Advanced Materials Engineering, Sungkyunkwan University, South Korea

Working History:

2019-present Coordinator of Energy Conversion Group, ISEM, AIIM, University of Wollongong, Australia

2015-present Professor, University of Wollongong, Australia

2012-2015 Associate Professor, University of Wollongong, Australia

2012-2016 ARC Future Fellowship, University of Wollongong, Australia

2011 Senior Research Fellow

2008-2011 ARC Postdoctoral Fellowship (APD), University of Wollongong, Australia

2005-2008 Research Associate, University of Wollongong, Australia

Professional activities:

2022 : Guest Editor in EcoMat, Wiley

2022 : Guest Editor in Energy Materials, OAE

2021-: Advisory Board for Materials Futures (IOP)

2019-: Editorial Board Member for General Chemistry

2019-: Editorial Board Member for Nanomaterials (MDPI)

2018-: Associate Editor for Science Technology of Advanced Materials (Tayler&Francis)

2017-: Advisory Board in National Institute of Materials Science (NIMS), Japan

2017: Guest Editor in APL Materials, American Institute Physics, US

2015-: Editorial Board Member for Scientific Reports (NPG)

2015-: Editorial Board (Advisory Board) in Arab Journal of Physical Chemistry, Saudi Arabia

Fellowships:

2020 Visiting Professorship at Hanyang University, Korea (with Prof. Hansu Kim)

2019 Visiting Professorship at Sungkyunkwan University, Korea (with Prof. Sang-Woo Kim)

2018 Visiting Professorship at Kyung Hee University, Korea (with Prof. Min-Sik Park)

2017 Visiting Professorship at Najing Tech University, China (with Prof. Wei Huang)

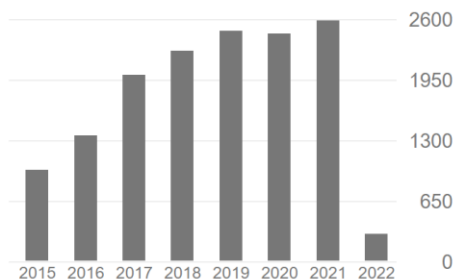
2016 Visiting Professorship at Fudan University, China (with Prof. Dong Yuan Zhao)

2015 Visiting Professorship at National Institute of Materials Science, Japan (with Prof. Yusuke Yamauchi)

Google Scholar:

https://scholar.google.com/citations?hl=en&user=LEq2zHQAAAAJ&view_op=list_works&sortby=pubdate

	All	Since 2017
Citations	16791	12094
h-index	65	53
i10-index	197	167



Refereed Journal Publications (2015 onwards)

[2022]

Sang A Han, Muhammad Naqi, Sunkook Kim*, **Jung Ho Kim***, “All-day wearable health monitoring system”, *EcoMat*, accepted

Su-Hun Kim, Dipak Patel, Yeundae Jeong, Minhee Kim, Se-Hee Lee, **Jung Ho Kim***, Seyong Choi*, “7 T Niobium-titanium based persistent-mode superconducting magnet for an electron beam ion source”, *IEEE Access*, accepted.

Hong Rim Shin, Jonghyeok Yun, Gwang Hyeon Eom, Janghyuk Moon, **Jung Ho Kim***, Min-Sik Park*, Jong-Won Lee*, Shi Xue Dou, “Mechanistic and nanoarchitectonics insights into Li-host interactions in carbon hosts for reversible Li metal storage”, *Nano Energy*, accepted.

Vaiyapuri Soundharrajan, Subramanian Nithiananth, Kumaresan Sakthiabirami, **Jung Ho Kim**, Ching-Yuan Su, Jeng-Kuei Chang*, “The advent of manganese-substituted sodium vanadium phosphate-based cathodes for sodium-ion batteries and their current progress: a focused review”, *Journal of Materials Chemistry A*, vol. 10 (2022), pp. 1022-1046

Mohit Kumar, Dong In Jeong, Nasir Sarwar, Subhajit Dutta, Neeshu Chauhan, Sang A Han, **Jung Ho Kim***, Dae Ho Yoon*, “Cobalt supported nitrogen-doped carbon nanotubes as efficient catalyst for hydrogen evolution reaction and reduction of 4-nitrophenol”, *Applied Surface Science*, vol. 5 (2022) pp. 151450

Dipak Patel*, Akiyoshi Matsumoto*, Hiroaki Kumakura, Minoru Maeda, Su-Hun Kim, Hao Liang, Yusuke Yamauchi, Seyong Choi, **Jung Ho Kim**, Md Shahriar A Hossain, “MgB₂ superconducting joint architecture with the functionality to screen external magnetic fields for MRI magnet applications”, *ACS Applied Materials & Interfaces*, <https://doi.org/10.1021/acsami.1c19581>

Minoru Maeda, Yoon-Uk Heo, Jun Hyuk Choi, Dipak Patel, Su-Hun Kim, Seungyong Hahn, **Jung Ho Kim***, Seyong Choi*, “Interfacial reaction and side effect of MgB₂ superconducting material through low-rotation mechanical milling”, *Ceramic International*, <https://doi.org/10.1016/j.ceramint.2021.11.201>

[2021]

Sang A Han, Hamzeh Qutaish, Min-Sik Park*, Janghyuk Moon*, **Jung Ho Kim***, “Strategic approaches to the dendritic growth and interfacial reaction of lithium metal anode”, *Chemistry An Asian Journal*, vol. 16 (2021) pp. 4010-417

Gwang Hyeon Eom, Sang A Han, Joo Hyeong Suh, **Jung Ho Kim***, Min-Sik Park*, “Enriched cavities to ZIF-

8-derived porous carbon for reversible metallic lithium storage”, *ACS Applied Energy Materials*, vol. 4 (2021), pp. 14520-15525

Srinivas Gandla, Jaewoo Song, Jonghwan Shin, Seungho Baek, Minwoo Lee, Danial Khan, Kang-Yoon Lee, **Jung Ho Kim**, Sunkook Kim*, “Mechanically stable kirigami deformable resonant circuit for wireless vibration and pressure sensor applications”, *ACS Applied Materials & Interfaces*, vol. 13, (2021) pp. 54162-54169

Su-Hun Kim, Dipak Patel, Minoru Maeda, Minhee Kim, Se-Hee Lee, Seyong Choi*, **Jung Ho Kim***, “Fundamental insight in the design of multifilament MgB₂ joint for boosting the persistent-mode operation”, *Superconductor Science and Technology*, vol. 34 (2021), pp. 125003

Tai Thai Vu, Byung Gon Kim*, **Jung Ho Kim***, Janghyuk Moon*, “Salvation of dendritic Li-growth through concentrated dual-salt electrolyte and its accurate prediction”, *Journal of Materials Chemistry A*, vol. 9 (2021), pp. 22833-22841

Hyung Wook Choi, Dong In Jeong, Seok Bin Kwon, Seongwon Woo, Jiwon Kim, **Jung Ho Kim**, Woo Seok Yang, Byungkwan Lim, Bong Kyun Kang*, Dae Ho Yoon*, “Nickel-iron nitrides and alloy heterojunction with amorphous N-doped carbon shell: high-efficiency synergistic electrocatalysts for oxygen evolution reaction”, *Applied Surface Science*, vol. 566 (2021) pp. 150706

Dipak Patel*, Akiyoshi Matsumoto*, Hiroaki Kumakura, Minoru Maeda, Sun-Hu Kim, Hao Liang, Yusuke Yamauchi, Seyong Choi, **Jung Ho Kim**, Md Shahriar A Hossain, “Superconducting joints using multifilament MgB₂ wires for MRI applications” *Scripta Materialia*, vol. 204 (2021), pp. 114156

Yuhwan Hyeon, Sung Won Moon, Seog-Gyun Kang, Young-Min Seo, Yang Jun Kim, In-Hwan Lee, Han-Ki Kim, **Jung Ho Kim**, Janghyuk Moon, Dongmok Whang*, “Platinum nanomesh mimicking graphene grain structure for stretchable transparent conductive electrode”, *Advanced Functional Materials*, under revision

Seung Hyun Choi, Yuhwan Hyeon, Hong Rim Shin, Gwang Hyun Eom, Hien Thi Thu Pham, Dongmok Whang, So Yeun Kim, Jong-Won Lee*, **Jung Ho Kim***, Min-Sik Park*, “Critical role of surface craters for improving the reversibility of Li metal storage in porous carbon frameworks”, *Nano Energy*, vol. 88 (2021), pp. 106243

Jaewoo Lee, Min-Sik Park, **Jung Ho Kim***, “Stabilizing Li-metal host anode with LiF-rich solid electrolyte interphase”, *Nano Convergence*, vol. 8 (2021), pp. 18

Sang A Han, Wanchul Seung, **Jung Ho Kim***, Sang-Woo Kim*, “Ultrathin noncontact-mode triboelectric nanogenerator triggered by giant dielectric material adaption”, *ACS Energy Letters*, vol. 6 (2021), pp. 1189-1197

Sang A Han, Ju-Hyuck Lee, Wanchul Seung, Jaewoo Lee, Sang-Woo Kim*, **Jung Ho Kim***, “Patchable and implantable 2D nanogenerator”, *Small*, vol. 17 (2021), pp. 1903519

Jaewoo Lee, Seung Hyun Choi, Hamzeh Qutaish, Yuhwan Hyeon, Sang A Han, Yoon-Uk Heo, Dongmok Whang, Jong-Won Lee, Janghyuk Moon*, Min-Sik Park*, **Jung Ho Kim***, Shi Xue Dou, “Structurally stabilized lithium-metal anode via surface chemistry engineering”, *Energy Storage Materials*, vol. 37 (2021), pp. 315-324

Hamzeh Qutaish, Jaewoo Lee, Yuhwan Hyeon, Sang A Han, In-Hwan Lee, Yoon-Uk Heo, Dongmok Whang, Janghyuk Moon*, Min-Sik Park*, **Jung Ho Kim***, “Design of cobalt catalyzed nanotubes in bimetallic zeolitic imidazolate frameworks”, *Applied Surface Science*, vol. 547 (2021), pp. 149134

Kadhim Attafi, Andrew Nattestad*, Hamzeh Qutaish, Min-Sik Park, Lok Kumar Shrestha, Katsuhiko Ariga, Shi Xue Dou, **Jung Ho Kim***, “Solvothermally-synthesized anatase TiO₂ nanoparticles for photoanodes in dye-sensitized solar cells”, *Science and Technology of Advanced Materials*, vol. 22 (2021), pp. 100-112

Subrata Maji, Rekha Goswami Shrestha, Jaewoo Lee, Sang A Han, Jonathan P Hill, **Jung Ho Kim***, Katsuhiko Ariga*, Lok Kumar Shrestha*, “Macaroni fullerene crystals-derived mesoporous carbon tubes as the high rate performance supercapacitor electrode material”, *Bulletin of the Chemical Society of Japan*, vol. 94 (2021), pp. 1502-1509

Dipak Patel, Akiyoshi Matsumoto*, Hiroaki Kumakura, Taku Moronaga, Yuka Hara, Toru Hara, Minoru Maeda, Md Shahriar A Hossain, Yusuke Yamauchi, Seyong Choi, **Jung Ho Kim**, "Superconducting joint concept for internal magnesium diffusion-processed magnesium diboride wires", *ACS Applied Materials & Interfaces*, vol. 13 (2021), pp. 3349-3357

Seyong Choi*, Dipak Patel, **Jung Ho Kim**, Hiroaki Kumakura, Akiyoshi Matsumoto, Gen Nishijima, Su-Hun Kim, Jinho Joo, Minoru Maeda*, "Evaluation and control of residual amorphous phases in carbon-doped MgB₂ superconductors", *Journal of Alloys and Compounds*, vol. 864 (2021), pp. 158867

[2020]

Jonghyeok Yun, Beom-Kyeong Park, Eun-Seo Won, Seung Hyun Choi, Hyon Choi Kang, **Jung Ho Kim***, Min-Sik Park*, Jong-Won Lee*, "Bottom-up lithium growth triggered by interfacial activity gradient on porous framework for lithium metal anode", *ACS Energy Letters*, vol. 5 (2020), pp. 3108-3114

Yuhwan Hyeon, Jaewoo Lee, Hamzeh Qutaish, Sang A Han, Seung Hyun Choi, Sung Won Moon, Min-Sik Park*, Dongmok Whang*, **Jung Ho Kim***, "Lithium metal storage in zeolitic imidazolate framework derived nanoarchitectures", *Energy Storage materials*, vol. 33 (2020), pp. 95-107

Junyoung Kim, Jaewoo Lee, Jonghyeok Yun, Seung Hyun Choi, Sang A Han, Janghyuk Moon, **Jung Ho Kim***, Jong-Won Lee*, Min-Sik Park*, "Functionality of dual-phase lithium storage in porous carbon host for lithium-metal anode", *Advanced Functional Materials*, vol. 30 (2020), pp. 1910538

Daeyeong Kim, Sang A Han, **Jung Ho Kim**, Ju-Hyuck Lee*, Sang-Woo Kim*, Seung-Wuk Lee*, "Biomolecular piezoelectric materials: from amino acids to living tissues", *Advanced Materials*, vol. 32 (2020), pp. 1906989

Jiyoung Kim, Jeonghun Kim, **Jung Ho Kim***, Ho Seok Park*, "Hierarchically open-porous nitrogen-incorporated carbon polyhedrons derived from metal-organic frameworks for improved CDI performance", *Chemical Engineering Journal*, vol. 382 (2020), pp. 122996

Jung Ho Kim*, "Focus on nanogenerators: toward smart wearable devices", *Science and Technology of Advanced Materials*, vol. 21 (2020), pp. 422-423

Sang A Han, Soo Min Hwang, Wanchul Seung, Tae Yun Kim, Min-Sik Park, Ju-Hyuck Lee*, Sang-Woo Kim*, **Jung Ho Kim***, "n-ZnO/p-NiO core/shell-structured nanorods for piezoelectric nanogenerators", *Energy Technology*, <https://doi.org/10.1002/ente.202000462>

Jaewoo Lee, Sang A Han, Hamzeh Qutaish, Lok Kumar Shrestha, Katsuhiko Ariga, **Jung Ho Kim***, "Zeolitic imidazolate framework-derived nanoarchitectures for lithium metal storage", *General Chemistry*, vol. 6 (2020), pp. 190011

Hyung Wook Choi, Dong In Jeong, Seongwon Woo, Seok Bin Kwon, Shengyuan Wu, **Jung Ho Kim**, Woo Seok Yang, Bong Kyun Kang, Byungkwon Lim, Dae Ho Yoon*, "Morphology adjustable Co_xN with 3D mesoporous structure and amorphous N-doped carbon for overall water splitting", *Applied Surface Science*, vol. 529 (2020), pp. 147177

Hyunseock Jie, Vladimir Luzin, Mukter Zaman, Anvar Valiyaparambil Abdulsalam, Keun Hwa Chae, Hyung-il Choi, Vladimir Levchenko, Arend Nijhuis, **Jung Ho Kim**, Mislav Mustapić, Shi Xue Dou, Yusuke Yamauchi, Aslam Khan, Md Shahriar A. Hossain*, "Evaluation of isotropic boron (¹¹B) for the fabrication of low activation Mg¹¹B₂ superconductor for next generation fusion magnets", *Journal of the American Ceramic Society*, vol. 103 (2020). Pp. 5488-5495

Dipak Patel, Akiyoshi Matsumoto*, Hiroaki Kumakura, Gen Nishijima, Minoru Maeda, Su-Hun Kim, Seyong Choi, **Jung Ho Kim**, "Tailored joint fabrication process derived ultra-low resistance MgB₂ superconducting joint", *Scripta Materialia*, vol. 178 (2020), pp. 198-202

Thanh Dung Le, Rita Noumeir, Huu Luong Quach, Ji Hyung Kim, **Jung Ho Kim**, Ho Min Kim, "Critical temperature prediction for a superconductor: A variational Bayesian neural network approach", *IEEE Transactions on Applied Superconductivity*, vol. 30 (2020), pp. 1-5

Dong Gun Lee, Jun Hyuk Choi*, Du Na Kim, Ju Heum Jeon, Minoru Maeda, Seyong Choi, **Jung Ho Kim**, "Commerical MgB₂ superconducting wires at Sam Dong", *Progress in Superconductivity and Cryogenics*, vol. 22 (2020), pp. 26-31

Sang A Han, Soo Min Hwang, Wanchul Seung, Tae Yun Kim, Min-Sik Park, Ju-Hyuck Lee*, Sang-Woo Kim*, **Jung Ho Kim***, "n-ZnO/p-NiO core/shell-structured nanorods for piezoelectric nanogenerators", *Energy Technology*, vol. 8 (2020), pp/. 2000462

Dipak Patel, Akiyoshi Matsumoto*, Hiroaki Kumakura, Minoru Maeda, Su-Hun Kim, Md Shahriar Al Hossain, Seyong Choi, **Jung Ho Kim**, "MgB₂ for MRI applications: dual sintering induced performance variations in situ and IMD processed MgB₂ conductors", *Journal of Materials Chemistry C*, vol. 8 (2020), pp. 2507-2516

[2019]

Fanar Hussein Jawdat, Jianjian Lin, Shi Xue Dou, Min-Sik Park*, Andrew Nattestad*, **Jung Ho Kim***, "Oxygen-Deficient TiO₂- δ Synthesized from MIL-125 Metal-Organic Framework for Photocatalytic Dye Degradation", *Bulletin of the Chemical Society of Japan*, vol. 92 (2019), pp. 2012-2018

Sung Hoon Kwag, Yang Soo Lee, Jooyoung Lee, Dong In Jeong, Seok Bin Kwon, Jung Hyeon Yoo, Seongwon Woo, Byeong Seok Lim, Won Kyu Park, Min-Jun Kim, **Jung Ho Kim**, Byungkwon Lim, Bong Kyun Kang*, Woo Seok Yang*, Dae Ho Yoon*, "Design of 2D Nanocrystalline Fe₂Ni₂N Coated onto Graphene Nanohybrid Sheets for Efficient Electrocatalytic Oxygen Evolution", *ACS Applied Energy Materials*, vol. 2 (2019), pp. 8502-8510

Jie Wang, Jeonghun Kim, Bing Ding, **Jung Ho Kim**, Victor Malgras, Christine Young, Yusuke Yamauchi*, "Ultra-thin, highly graphitized carbon nanosheets into three-dimensional interconnected fraomework utilizing a ball mill mixing of precursors", *Chemical Engineering Journal*, vol. 374 (2019), pp. 1214-1220

Dipak Patel, Su-Hun Kim, Wenbin Qiu, Minoru Maeda, Akiyoshi Matsumoto, Gen Nishijima, Hiroaki Kumakura, Seyong Choi*, **Jung Ho Kim***, "Niobium-titanium (Nb-Ti) Superconducting Joints for Persistent-mode Operation", *Superconductor Science and Technology*, vol. 9 (2019), pp. 1-7

Jaewoo Lee, Sang A Han, Sang-Min Lee, Min-Sik Park*, **Jung Ho Kim***, "Electrochemical properties of nonstoichiometric silicon suboxide anode materials with controlled oxygen concentration", *Composites Part B: Engineering*, vol. 174 (2019), pp. 107024

Jaewoo Lee, Janghyuk Moon, Sang A Han, Junyoung Kim, Victor Malgras, Yoon-Uk Heo, Hansu Kim, Sang-Min Lee, Hua Kun Liu, Shi Xue Dou, Yusuke Yamauchi*, Min-Sik Park*, **Jung Ho Kim***, "Everlasting living and breathing gyroid 3D network Si@SiO_x/C nanoarchitecture for lithium ion battery", *ACS Nano*, vol. 13 (2019), pp. 9607-9619

Kadhim Al-Attafi, Andrew Nattestad*, Shi Xue Dou, **Jung Ho Kim***, "A Comparative Study of TiO₂ Paste Preparation Methods using Solvothermally Synthesised Anatase Nanoparticles in Dye-sensitized Solar Cells", *Applied Sciences*, vol. 9 (2019), pp. 979

Partha Bairi, Subrata Maji, Jonathan P. Hill, **Jung Ho Kim**, Katsuhiko Ariga, Lok Kumar Shrestha*, "Mesoporous carbon cubes derived from fullerene crystals as a high rate performance electrode material for supercapacitor", *Journal of Materials Chemistry A*, vol. 7 (2019), pp. 12654-12660

Bong Kyun Kang, Seo Young Im, Jooyoung Lee, Sung Hoon Kwag, Seok Bin Kwon, Sintayehu Nibret Tiruneh, Min-Jun Kim, **Jung Ho Kim**, Woo Seok Yang, Byungkwon Lim, Dae Ho Yoon*, "In-situ formation of MOF derived mesoporous Co₃N/amphous N-doped carbon nanocubes as an efficient electrocatalytic oxygen evolution reaction", *Nano Research*, vol. 12 (2019), pp. 811-816

Ahrum Sohn, Seung Choi, Sang A Han, Tae-Ho Kim, Jung Ho Kim, Yunseok Kim, Sang-Woo Kim*,

“Temperature-dependent piezotronic of MoS₂ monolayer”, **Nano Energy**, vol. 58 (2019), pp. 811-816

Sang A Han, Jaewoo Lee, Jianjian Lin, Sang-Woo Kim, **Jung Ho Kim***, “Piezo/triboelectric nanogenerators based on 2-dimensional layered structure materials”, **Nano Energy**, vol. 57 (2019), pp. 680-691

Kadhim Al-Attafi, Fanar Hussein Jawdat, Hamzeh Qutaish, Patricia Hayes, Amar Al-Keisy, Kyubin Shim, Yusuke Yamauchi, Shi Xue Dou, Andrew Nattestad*, **Jung Ho Kim***, “Cubic aggregated of Zn₂SnO₄ nanoparticles and their application in dye-sensitized solar cells”, **Nano Energy**, vol. 57 (2019), pp. 202-213

Kyubin Shim, Won-Chul Lee, Yoon-Uk Heo, Mohammed Shahabuddin, Min-Sik Park*, Md Shahriar A Hossain, **Jung Ho Kim***, “Rationally designed bimetallic Au@Pt nanoparticles for glucose oxidation”, **Scientific Reports**, vol. 9 (2018), 894

Kyubin Shim, Won-Chul Lee, Min-Sik Park*, Mohammed Shahabuddin, Yusuke Yamauchi, Md Shahriar A Hossain, Yoon-Bo Shim, **Jung Ho Kim***, “Au decorated core-shell structured Au@Pt for the glucose oxidation reaction”, **Sensors and Actuators B: Chemical**, vol. 278 (2018), pp. 88-96

Kyubin Shim, Jianjian Lin, Min-Sik Park*, Mohammed Shahabuddin, Yusuke Yamauchi, Md Shahriar A Hossain, **Jung Ho Kim***, “Tunable porosity in bimetallic core-shell structured palladium-platinum nanoparticles for electrocatalysts”, **Script Materialia**, vol. 158 (2018). Pp. 38-41

Chinnasamy Sengottaiyan, Ramasamy Jayavel, Rekha Goswami Shrestha, Thiyaagu Subramani, Subrata Maji, **Jung Ho Kim**, Jonathan P Hill, Katsuhiko Ariga, Lok Kumar Shrestha*, “Indium Oxide/Carbon Nanotubes/Reduced Graphene Oxide Ternary Nanocomposite with Enhanced Electrochemical Supercapacitance”, **Bulletin of the Chemical Society of Japan**, vol. 92 (2019), pp. 521-528

[2018]

Dipak Patel, Wenbin Qiu, Mislav Mustapić, Jonathan C Knott, Zongqing Ma, Daniel Gajda, Mohammed Shahabuddin, Jianyi Xu, Seyong Choi, Mike Tomsic, Shi Xue Dou, Yusuke Yamauchi*, **Jung Ho Kim***, Md Shahriar Al Hossain*, “Evaluation of a solid nitrogen impregnated MgB₂ racetrack coil”, **Superconductor Science and Technology**, vol. 31 (2018) 105010

Sang A Han, Jaewoo Lee, Kyubin Shim, Jianjian Lin, Mohammed Shahabuddin, Jong-Won Lee, Sang-Woo Kim, Min-Sik Park, **Jung Ho Kim***, “Strategically designed zeolitic imidazolate frameworks for controlling the degree of graphitization”, **Bulletin of the Chemical Society of Japan**, vol. 91 (2018), pp. 1474-1480

Peng Mei, Jaewoo Lee, Malay Pramanik, Abdulmohsen Alshehri, Jeonghun Kim, Joel Henzie, **Jung Ho Kim***, Yusuke Yamauchi*, “Mesoporous manganese phosphonate nanorods as a prospective anode for lithium-ion batteries”, **ACS Applied Materials & Interfaces**, vol. 10 (2018), pp. 19739-19745

Hyundong Yoo, Eunjun Park, Juhye Bae, Jaewoo Lee, Dong Jae Chung, Yong Nam Jo, Min-Sik Park*, **Jung Ho Kim**, Shi Xue Dou, Young-Jun Kim, Hansu Kim*, “Si Nanocrystal-Embedded SiO_x nanofoils: Two-Dimensional Nanotechnology-Enabled High Performance Li Storage Materials”. **Scientific Reports**, vol. 8 (2018) 6904

Kyubin Shim, Zhong-Li Wang, Tasnima Haque Mou, Yoshio Bando, Abdulmohsen Ali Alshehri, Jeonghun Kim, Md Shahriar A Hossain, Yusuke Yamauchi*, **Jung Ho Kim***, “Facile Synthesis of Palladium-Nanoparticle-Embedded N-Doped Carbon Fibers for Electrochemical Sensing”, **ChemPlusChem**, vol. 83 (2018), pp. 401-406

Kyunbin Shim, Jeonghun Kim, Mohammed Shahabuddin, Yusuke Yamauchi, Md Shahriar Al Hossain*, **Jung Ho Kim***, “Efficient Wide Range Electrochemical Bisphenol-A Sensor by Single Dendritic Mesoporous Platinum Nanoparticles on Screen-Printed Carbon Electrode”, **Sensor and Actuator B: Chemical**, vol. 255 (2018), pp. 2800-2808

Kadhim Al-Attafi, Andrew Nattestad*, Qijie Wu, Yusuke Ide, Yusuke Yamauchi, Shi Xue Dou, **Jung Ho Kim***, “The effect of amorphous TiO₂ in P25 on dye-sensitized solar cell performance”, **Chemical Communications**, vol. 54 (2018), pp. 381-384

[2017]

Kadhim Al-Attafi, Andrew Nattestad*, Yusuke Yamauchi, Shi Xue Dou, **Jung Ho Kim***, "Aggregated mesoporous nanoparticles for high surface area light scattering layer TiO₂ photoanodes in dye-sensitized solar cells", **Scientific Reports**, vol. 7 (2017) 10341

Jeonghun Kim, **Jung Ho Kim***, Katsuhiko Ariga*, "Redox-Active Polymers for Energy Storage Nanoarchitectonics", **Joule**, vol. 1 (2107), pp. 739-768

Jung Ho Kim*, Sang-Woo Kim*, Zhong Lin Wang*, "Preface for Special Topic: Nanogenerators", **APL Materials**, vol. 5 (2017) 073701

Jeonghun Kim, Ju-Hyuck Lee, Jaewoo Lee, Yusuke Yamauchi, Chang Ho Choi, **Jung Ho Kim***, "Research update: Hybrid energy devices combining nanogenerators and energy storage systems for self-charging capability", **APL Materials**, 5 (2017) 073804

Yoon-Uk Heo*, Sangmmon Yoon, **Jung Ho Kim**, Young-Ki Kim, Miyoung Kim, Tae-Jin Song, Minoru Maeda, Shi Xue Dou, "Preferential growth of boron layer in magnesium diboride (MgB₂) by Mg diffusion method, **Journal of Alloys and Compounds**, vol. 725 (2017), pp. 526-535

Ziyang Dai, Jianjian Lin*, Qiuchun Dong, Zihui Yin, Xiaxian Zang, Lei Shen, **Jung Ho Kim**, Wei Huang, Saad M. Alshehri, Christine Young, Yusuke Yamauchi*, Xiaochen Dong*, "Ni-Co binary hydroxide nanotubes with three-dimensionally structured nanoflakes: Synthesis and application as cathode materials for hybrid supercapacitor", **Chemistry-A European Journal**, DOI: 10.1002/chem.201701251

Jeffrey E. Chen, Miao-Syuan Fan, Yen-Lin Chen, Yu-Heng Deng, **Jung Ho Kim**, Hatem R. Alamri, Zeid A. Allothman, Yusuke Yamauchi, Kuo-Chuan Ho*, Kevin C.-W. Wu*, "Prussian blue-derived synthesis of hollow porous iron pyrite nanoparticles as platinum-free counter electrodes for highly efficient dye-sensitized solar cells", **Chemistry-A European Journal**, DOI: 10.1002/chem.201702687

S. Yallappa, Shoriya Aruni Abdul Manaf, Muhammad J. Shiddiky, **Jung Ho Kim**, Md. Shahriar A. Hossain, Victor Malgras, Yusuke Yamauchi*, Guru, muthy Hegde*, "Synthesis of carbon nanospheres through carbonization of areca nut", **Journal of Nanoscience and Nanotechnology**, 17 (2017) 2837-2842

Peng Mei, Malay Pramanik, Jaewoo Lee, Yusuke Ide, Zeid Abdullah Allothman, **Jung Ho Kim***, Yusuke Yamauchi*, "Highly ordered mesostructured vanadium phosphonate toward electrode materials for lithium-ion batteries, **Chemistry-A European Journal**, 23 (2017) 4344-4352

Qi Cai, Qianying Guo, Yongchang Liu, Zongqing Ma, Huijun Li, Wenbin Qiu, Dipak Patel, Hyunseock Jie, **Jung Ho Kim**, Mehmet Somer, Ekrem Yanmaz, Arnaud devred, Vladimir Luzin, Amanullah Fatehmulla, Wazizada Aslam Farooq, Daniel Gajda, Yoshio Bando, Yusuke Yamauchi, Subrata Pradhan, Md Shahriar A. Hossain*, "Doping-induced isotopic Mg₁₁B₂ superconductor for fusion application", **Energies**, 10 (2017) 409

Malenahalli Halappa Naveen, Kyubin Shim, Md. Shahriar A. Hossain, **Jung Ho Kim**, Yoon-Bo Shim*, "Template free preparation of heteroatoms doped carbon spheres with trace Fe for efficient oxygen reduction reaction and supercapacitor", **Advanced Energy Materials**, 7 (2017) 1602002

Ting Liao, Ziqi Sun*, **Jung Ho Kim**, Shi Xue Dou*, "Theoretically designed metal-welded carbon nanotubes: Extraordinary electronic properties and promoted catalytic performance", **Nano Energy**, 32 (2017) 209-215

Yuhai Dou, Dongliang Tian*, Ziqi Sun*, Qiannan Liu, Na Zhang, **Jung Ho Kim**, Lei Jiang, Shi Xue Dou, "Fish gill inspired crossflow for efficient and continuous collection of spilled oil", **ACS Nano**, 11 (2017) 2477-2485

Changting Wei, Hongjing Wang*, Kamel Eid, Jeonghun Kim, **Jung Ho Kim**, Zeid Abdullah Allothman, Yusuke Yamauchi*, Liang Wang*, "A three-dimensionally structured electrocatalyst: cobalt-embedded nitrogen-doped carbon nanotubes/nitrogen-doped reduced graphene oxide hybrid for efficient oxygen reduction", **Chemistry-A European Journal**, 23 (2017) 637-643

Kyubin Shim, Jeonghun Kim, Yoon-Uk Heo, Bo Jiang, Cuiling Li, Mohammed Shahabuddin, Kevin C-W Wu, Md Hossain, A Shahriar, Yusuke Yamauchi*, **Jung Ho Kim***, "Synthesis and cytotoxicity of dendritic platinum nanoparticles with HEK-293 cells", *Chemistry-An Asian Journal*, 12 (2017) 21-26

Jeonghun Kim, Christine Young, Jaewoo Lee, Yoon Uk Heo, Min-Sik Park, Md. Shahriar A. Hossain, Yusuke Yamauchi*, **Jung Ho Kim***, "Nanoarchitecture of MOF-derived nanoporous functional composites for hybrid supercapacitor", *Journal of Materials Chemistry A*, 5 (2017) 15065-15072

Youngsang Ko, Jeonghun Kim, Dabum Kim, Yusuke Yamauchi, **Jung Ho Kim***, Jungmok You*, "A simple silver nanowire patterning method based on poly(ethylene glycol) photolithography and its application for soft electronics", *Scientific Report*, 7 (2017) 2282

Victor Malgras, Andrew Nattestad, **Jung Ho Kim**, Shi Xue Dou, Yusuke Yamauchi*, "Understanding chemically processed solar cells based on quantum dots", *Science and Technology of Advanced Materials*, 18 (2017) 334-350

Peng Mei, Malay Pramanik, Jaewoo Lee, Toshiaki Takei, Yusuke Ide, Md Shahriar A Hossain, **Jung Ho Kim***, Yusuke Yamauchi*, "Facile synthesis of nanoporous $\text{Li}_{1+x}\text{V}_1\text{-xO}_2\text{@C}$ composites as promising anode materials for lithium-ion batteries", *Physical Chemistry Chemical Physics*, 19 (2017) 9156-9163

Wei Zhang, Xiangfen Jiang, Yanyi Zhao, Arnau Carné-Sánchez, Victor Malgras, Jeonghun Kim, **Jung Ho Kim**, Shaobin Wang, Jian Liu*, Ji-Sen Jiang, Yusuke Yamauchi*, Ming Hu*, "Hollow carbon nanobubbles: monocrystalline MOF nanobubbles and their pyrolysis", *Chemical Science*, 8 (2017) 3538-3546

Bong Kyun Kang, Moo Hyun Woo, Jooyoung Lee, Young Hyun Song, Zhongli Wang, Yanna Guo, Yusuke Yamauchi, **Jung Ho Kim**, Byungkwon Lim, Dae Ho Yoon*, "Mesoporous Ni-Fe oxide multi-composite hollow nanocages for efficient electrocatalytic water oxidation reaction", *Journal of Materials Chemistry A*, 5 (2017) 4320-4324

Saikat Dutta, Jeonghun Kim, Yusuke Ide, **Jung Ho Kim**, Md Shahriar A Hossain, Yoshio Bando, Yusuke Yamauchi*, Kevin C-W Wu*, "3D network of cellulose-based energy storage devices and related emerging applications", *Materials Horizons*, 4 (2017) 522-545

Jun Hyung Lim, Seung Muk Lee, Hyun-Suk Kim, Hyun You Kim, Jozeph Park, Seung-Boo Jung, Geun Chul Park, **Jung Ho Kim***, Jinho Joo*, "Synergistic effect of indium and gallium co-doping on growth behavior and physical properties of hydrothermally grown ZnO nanorods", *Scientific Reports*, 7 (2017) 41992

Dipak Patel, Md Shahriar Al Hossain*, Wenbin Qiu, Hyunseock Jie, Yusuke Yamauchi, Minoru Maeda, Mike Tomsic, Seyong Choi*, **Jung Ho Kim***, "Solid cryogen: a cooling system for future MgB₂ MRI magnet", *Scientific Reports*, 7 (2017) 43444

Rohan B. Ambade, Swapnil B. Ambade, Nabeen K Shrestha, Rahul R. Salunkhe, Wonjoo Lee, Sushil S Bagde, **Jung Ho Kim**, Florian J. Stadler*, Yusuke Yamauchi*, Soo-Hyoung Lee*, "Controlled growth of polythiophene nanofibers in TiO₂ nanotubes arrays for supercapacitor applications", *Journal of Materials Chemistry A*, 5 (2017) 172-180

Muhammad Iqbal, Cuiling Li*, **Jung Ho Kim**, Saad M Alshehri, Tsuruo Nakayama, Yusuke Yamauchi*, "Three-dimensional super-branched PdCu nanoarchitectures exposed on controlled crystal facets", *Chemistry-A European Journal*, 23 (2017) 51-56

[2016]

Dipak Patel, Md Shahriar Al Hossain*, Minoru Maeda, Mohammed Shahabuddin, Ekrem Yanmaz, Subrata Pradhan, Mike Tomsic, Seyong Choi*, **Jung Ho Kim***, "A new approach to a superconducting joining process for carbon-doped MgB₂ conductor", *Superconductor Science and Technology*, 29 (2016) 095001

Dipak Patel, Md shahriar Al Hossain, Khay Wai See, Wenbin Qiu, Hiroaki Kobayashi, Zongqing Ma, Seong Jun Kim, Jonggi Hong, Jin Yong Park, Seyong Choi*, Minoru Maeda, Mohammed Shahabuddin, Matt

Rindfleisch, Mike Tomsic, Shi Xue Dou, **Jung Ho Kim***, "Evaluation of persistent-mode operation in a superconducting MgB₂ coil in solid nitrogen", *Superconductor Science and Technology*, 29 (2016) 04LT02

Wenbin Qiu, Hyunseock Jie, Dipak Patel, Yao Lu, Vladimir Luzin, Arnaud Devred, Mehmet Somer, Mohammed Shahabuddin, **Jung Ho Kim**, Zongqing Ma*, Shi Xue Dou, Md. Shahriar Al Hossain*, "Improvement in the transport critical current density and microstructure of isotopic Mg¹¹B₂ monofilament wires by optimizing the sintering temperature", *Scientific Reports*, 6 (2016) 36660

Annya Kundu, Dipak Patel, Nitish Kumar, Arun G. Panchal, Wenbin Qiu, Hyunseock Jie, Zongqing Ma, Ekrem Yanmaz, Mohammed Shahabuddin, **Jung Ho Kim**, Subrata Pradhan, Md Shahriar Al Hossain*, "Fabrication, Transport Current Testing, and Finite Element Analysis of MgB₂ Racetrack Coils", *Journal of Superconductivity and Novel Magnetism*, DOI: 10.1007/s10948-016-3870-y

Rahul R. Salunkhe, Yusuf Valentino Kaneti, Jeonghun Kim, **Jung Ho Kim***, Yusuke Yamauchi*, "Nanoarchitectures for Metal-Organic Framework-Derived Nanoporous Carbons toward Supercapacitor Applications", *Accounts of Chemical Research*, 12 (2016) 2796-2806

Malay Pramanik, Jaewoo Lee, Satoshi Tominaka, Yusuke Ide, **Jung Ho Kim**, Yusuke Yamauchi*, "Unique nanocrystalline frameworks in mesoporous tin phosphate prepared through a hydrofluoric acid assisted chemical reaction", *Journal of Materials Chemistry A*, 46 (2016) 18091-18099

Jeonghun Kim, Christine Young, Jaewoo Lee, Min-Sik Park, Mohammed Shahabuddin, Yusuke Yamauchi*, **Jung Ho Kim***, "CNTs grown on nanoporous carbon from zeolitic imidazolate frameworks for supercapacitor", *ChemComm*, 52 (2016) 13016-13019

Dabum Kim, Jeonghun Kim, Youngsang Ko, Kyubin Shim, **Jung Ho Kim***, Jungmok You*, "A Facile Approach for Constructing Conductive Polymer Patterns for Application in Electrochromic Devices and Flexible microelectrodes", *ACS Applied Materials & Interfaces*, 8 (2016) 33175-33182

Huayu Qian, Jing Tang*, Zhongli Wang, Jeonghun Kim, **Jung Ho Kim**, Saad M. Alshehri, Ekrem Yanmaz, Xin Wang*, Yusuke Yamauchi*, "Synthesis of Cobalt Sulfide/Sulfur Doped Carbon Nanocomposites with Efficient Catalytic Activity in the Oxygen Evolution Reaction", *Chemistry A European Journal*, 22 (2016) 18259-18264

Yuhai Dou, Ting Liao, Zongqing Ma, Dongliang Tian, Qiannan Liu, Feng Xiao, Ziqi Sun*, **Jung Ho Kim**, Shi Xue Dou*, "Graphene-like holey Co₃O₄ nanosheets as a highly efficient catalyst for oxygen evolution reaction", *Nano Energy*, 30 (2016) 267-275

Ziqi Sun*, Ting Liao, Liyuan Sheng, **Jung Ho Kim**, Shi Xue Dou, "Fly compound-eye inspired inorganic nanostructures with extraordinary visible-light responses", *Materials Today Chemistry*, <http://dx.doi.org/10.1016/j.mtchem.2016.11.001>

Bishnu Prasad Bastakoti, Yungqi Li, Sudhina Guragain, Saad M. Alshehri*, Muhammad J.A. Shiddiky, Zongwen Liu, Kyubin Shim, **Jung Ho Kim**, Md Shahriar A Hossain, Victor Malgras, Yusuke Yamauchi*, "Formation of mesopores inside platinum nanospheres by using double hydrophilic block copolymers", *Materials Letters*, 182 (2016) 190-193

Jie Wang, Jing Tang, Tunling Xu, Bing Ding, Zhi Chang, Ya Wang, Xiaodong Hao, Hui Dou, **Jung Ho Kim**, Xiaogang Zhang*, Yusuke Yamauchi*, "Interface miscibility induced double-capillary carbon nanofibers for flexible electric double layer capacitors", *Nano Energy*, 28 (2016) 232-240

Mohamed B. Zakaria, Md. Shahriar A. Hossain, Muhammad J.A. Shiddiky, Mohammed Shahabuddin, Ekrem Yanmaz, **Jung Ho Kim**, Alexei A. Belik, Yusuke Ide, Ming Hu, Satoshi Tominaka, Yusuke Yamauchi*, "Cyano-Bridged Trimetallic Coordination Polymer Nanoparticles and Their Thermal Decomposition into Nanoporous Spinel Ferromagnetic Oxides", *Chemistry A European Journal*, 22 (2016) 15042015048

Ziqi Sun*, Ting Liao, Liyuan Sheng, Liangzhi Lou, **Jung Ho Kim***, Shi Xue Dou, "Deliberate Design of TiO₂ Nanostructures towards Superior Photovoltaic Cells", *Chemistry A European Journal*, 22 (2016) 11357-11364

Mislav Mustapic*, Md Shahriar Al Hossain*, Joseph Horvat, Pawel Wangner, David R.G. Mitchell, **Jung Ho Kim**, Gursel Alici, Yoshita Nakayama, Boris Martinac, "Controlled delivery of drugs adsorbed onto porous Fe₃O₄ structures by application of AC/DC magnet fields", *Microporous and Mesoporous Materials*, 226 (2016) 243-250

Lin Jing, Kyubin Shim, Cui Ying Toe, Tim Fang, Chuan Zhao, Rose Amal, Ke-Ning Sun*, **Jung Ho Kim***, Yun Hau Ng*, "Electrospun Polyacrylonitrile-Ionic Liquid Nanofibers for Superior PM_{2.5} Capture capacity", *ACS Applied Materials & Interfaces*, 8 (2016) 7030-7036

Christine Young, Rahul R. Salunkhe*, Jing Tang, Chi-Chang Hu, Mohammed Shahabuddin, Ekrem Yanmaz, Md Shahriar A. Hossain, **Jung Ho Kim**, Yusuke Yamauchi*, "Zeolitic imidazolate framework (ZIF-8) derived nanoporous carbon: the effect of carbonization temperature on the supercapacitor performance in an aqueous electrolyte", *Physical Chemistry Chemical Physics*, 18 (2016) 29308-29315

Jeonghun Kim, Jaewoo Lee, Jungmok You, Min-Sik Park, Md Shahriar Al Hossain, Yusuke Yamauchi*, **Jung Ho Kim***, "Conductive polymers for next-generation energy storage systems: recent progress and new functions", *Materials Horizons*, 3 (2016) 517-535

Kyu-Nam Jung, Jeonghun Kim, Yusuke Yamauchi, Min-Sik Park*, Jong-Won Lee*, **Jung Ho Kim***, "Rechargeable lithium-air batteries: a perspective on the development of oxygen electrodes", *Journal of Materials Chemistry A*, 4 (2016) 14050-14068

Victor Malgras, Hamed Ataee-Esfahani, Hongjing Wang, Bo Jiang, Cuiling Li, Kevin C-W Wu, **Jung Ho Kim**, Yusuke Yamauchi*, "Nanoarchitectures for Mesoporous Metals", *Advanced Materials*, 28 (2016) 993-1010

Taihee Han, Min-Sik Park, Jeonghun Kim, Jung Ho Kim, Ketack Kim*, "The smallest quaternary ammonium salts with ether groups for high-performance electrochemical double layer capacitors", *Chemical Science*, 7 (2016) 1791-1796

Rahul R. Salunkhe, Jing Tang, Naoya Kobayashi, Jeonghun Kim, **Jung Ho Kim***, Yusuke Yamauchi*, "Ultrahigh performance supercapacitors utilizing core-shell nanoarchitectures from a metal-organic framework-derived nanoporous carbon and a conducting polymer", *Chemical Science*, 7 (2016) 5704-5713

Ju-Hyuck Lee, Jeonghun Kim, Tae Yun Kim, Md Shahriar Al Hossain, Sang-Woo Kim*, **Jung Ho Kim***, "All-in-one energy harvesting and storage devices", *Journal of Materials Chemistry A*, 4 (2016) 7983-7999

Yunqi Li, Cuiling Li, Bishnu Prasad Bastakoti, Jing Tang, Bo Jiang, Jeonghun Kim, Mohammed Shahabuddin, Yoshio Bando, **Jung Ho Kim***, Yusuke Yamauchi*, "Strategic synthesis of mesoporous Pt-on-Pd bimetallic spheres templated from a polymeric micelle assembly", *Journal of Materials Chemistry A*, 4 (2016) 9169-9176

Bo Jiang, Cuiling Li, Jing Tang, Toshiaki Takei, **Jung Ho Kim**, Yusuke Ide, Joel Henzie, Satoshi Tominaka, Yusuke Yamauchi, "Tunable-sized polymeric micelles and their assembly for the preparation of large mesoporous platinum nanoparticles", *Angewandte Chemie International Edition*, 128 (2016) 10191-10195

Cuiling Li, Bo Jiang, Zhongli Wang, Yunqi Li, Md. Shahriar A. Hossain, **Jung Ho Kim**, Toshiaki Takei, Joel Henzie, Omer Dag, Yoshio Bando, Yusuke Yamauchi*, "First synthesis of Continuous Mesoporous Copper Films with Uniformly Sized Pores by Electrochemical Soft Templating", *Angewandte Chemie International Edition*, 55 (2016) 1-6

Jing Tang, Rahul R. Salunkhe, Huabin Zhang, Victor Malgras, Tansir Ahamad, Saad M. Alshehri, Naoya Kobayashi, Satoshi Tominaka, Yusuke Ide, **Jung Ho Kim***, Yusuke Yamauchi*, "Bimetallic metal-organic frameworks for controlled catalytic graphitization of nanoporous carbons", *Scientific Reports*, 6 (2016) 30295

Ki Jae Kim, Heon Seong Lee, Jeonghun Kim, Min-Sik Park*, **Jung Ho Kim***, Young-Jun Kim, Maria Skyllas-Kazacos*, "Superior electrocatalytic activity of a robust carbon-felt electrode with oxygen-rich phosphate groups for all-vanadium redox flow batteries", *ChemSusChem*, 9 (2016), 1329-1338

[2015]

Dipak Patel, Md Shahriar Al Hossain, Khay Wai See, Xun Xu, Shaon Barua, Zongqing Ma, Seyong Choi, Mike Tomsic, **Jung Ho Kim***, "MgB₂ superconducting joints for persistent current operation", ***Superconductor Science and Technology***, 28 (2015), 065017

Ziqi Sun, Ting Liao, Wenxian Li, Yuhai Dou, Kesong Liu, Lei Jiang*, Sang-Woo Kim, **Jung Ho Kim***, Shi Xue Dou, "Fish-scale bio-inspired multifunctional ZnO nanostructures", ***NPG Asia Materials***, 7 (2015), e232

Victor Malgras, Guanran Zhang, Andrew Nattestad, Tracey M Clarke, Attila J Mozer, Yusuke Yamauchi*, **Jung Ho Kim***, "Trap-assisted transport and non-uniform charge distribution in sulfur-rich PbS colloidal quantum dot-based solar cells with selective contacts", ***ACS Applied Materials & Interfaces***, 7 (2015), pp. 26455-26460

Young-Geun Lim, Min-Sik Park*, Ki Jae Kim*, Kyu-Sung Jung, **Jung Ho Kim**, Mohammed Shahabuddin, Dongjin Byun, Ji-Sang Yu, "Incorporation of conductive polymer into soft carbon electrodes for lithium ion capacitors", ***Journal of Power Source***, 299 (2015), pp. 49-56

Wanchul Seung, manoj Kumar Gupta, Keun Young Lee, Kyung-Sik Shin, Ju-Hyuck Lee, Tae Yun Kim, Sanghyun Kim, Jianjian Lin, **Jung Ho Kim**, Sang-Woo Kim*, "Nanopatterned textile based wearable triboelectric nanogenerator", ***ACS Nano***, 9 (2015), pp. 3501-3509

Yunqi Li, Bishnu Prasad Bastakoti, Victor Malgras, Culing Li, Jing Tang, **Jung Ho Kim**, Yusuke Yamauchi*, "Polymeric micelle assembly for a smart synthesis of mesoporous Pt nanospheres with tunable pore sizes", ***Angewandte Chemie***, 54 (2015), pp. 11073-11077

Malay Pramanik, Masataka Imura, Jianjian Lin, Jeonghun Kim, **Jung Ho Kim***, Yusuke Yamauchi*, "Shape-controlled synthesis of mesoporous iron phosphate materials with crystallized frameworks", ***Chemical Communications***, 51 (2015), pp. 13806-13809

Jung Ho Kim, Seyong Choi, "Carbon doping induced imperfections on MgB₂ superconducting wire", ***Journal of Analytical Science and Technology***, 6 (2015), pp.1-5

Malay Pramanik, Yoshihiro Tsujimoto, Victor Malgras, Shi Xue Dou, **Jung Ho Kim***, Yusuke Yamauchi*, "Mesoporous iron phosphonate electrodes with crystalline frameworks for lithium-ion batteries", ***Chemistry of Materials***, 27 (2015), pp. 1082-1089

Jianjian Lin, Yoon-Uk Heo, Andrew Nattestad*, Mohammed Shahabuddin, Yusuke Yamauchi, **Jung Ho Kim***, "N719- and D149-sensitized 3D hierarchical rutile TiO₂ solar cells- A comparative study", ***Physical Chemistry Chemical Physics***, 17 (2015), pp. 30963-30977

M. Halappa Naveen, Hui-Bog Noh, Md Shahriar Al Hossain, **Jung Ho Kim***, Yoon-Bo Shim*, "Facile potentiostatic preparation of functionalized polyterthiophene anchored graphene oxide as metal-free electrocatalyst for oxygen reduction reaction", ***Journal of Materials Chemistry A***, 3 (2015), 5426-5433

Jianjian Lin, Yong Peng, Alexander R. Pascoe, Fuzhi Huang, Yi-Bing Cheng*, Yoon-Uk Heo, Andrew Nattestad*, Wanchul Seung, Sung Kyun Kim, Hoon Joon Yoon, Sang-Woo Kim, Yusuke Yamauchi, Shi Xue Dou, **Jung Ho Kim***, "A bi-layer TiO₂ photoanode for highly durable, flexible dye-sensitized solar cell", ***Journal of Materials Chemistry A***, 3 (2015), 4679-4686

Mohamed B Zakaria, Ming Hu, Rahul R Salunkhe, Malay Pramanik, Kimiko Takai, Victor Malgras, Seyong Choi, Shi Xue Dou, **Jung Ho Kim**, Masataka Imura, Shinsuke Ishihara, Yusuke Yamauchi*, "Controlled synthesis of nanoporous nickel oxide with two-dimensional shapes through thermal decomposition of metal-cyanide hybrid coordination polymers", ***Chemistry-A European Journal***, 21 (2015), 3605-3612

Eunjun Park, Min-Sik Park*, Jaewoo Lee, Ki Jae Kim, Goojin Jeong, **Jung Ho Kim**, Young-Jun Kim, Hansu Kim*, "A highly resilient mesoporous SiO_x lithium storage material engineered by oil-water templating", ***ChemSusChem***, 8 (2015), 688-694

Kyu-Nam Jung, Soo Min Hwang, Min-Sik Park, Ki Jae Kim, Jae-Geun Kim, Shi Dou, **Jung Ho Kim***, and Jong-Won Lee*, "One-dimensional manganese-cobalt oxide nanofibres as bi-functional cathode catalysts for rechargeable metal-air batteries", **Scientific Report**, 5 (2015), 7665

Jianjian Lin, Long Zhao, Yoon-Uk Heo, Lianzhou Wang, Fargo Hasani Bijarbooneh, Attila Janos Mozer*, Andrew Nattestad*, Yusuke Yamauchi*, Shi Xue Dou, **Jung Ho Kim***, "Mesoporous anatase single crystals for efficient Co(2+/3+)-based dye-sensitized solar cells", **Nano Energy**, 11 (2015), pp. 557-567

Rahul R. Salunkhe, Jianjian Lin, Victor Malgras, Shi Xue Dou, **Jung Ho Kim***, Yusuke Yamauchi*, "Large-scale synthesis of coaxial carbon nanotube/Ni(OH)₂ composites for asymmetric supercapacitor application", **Nano Energy**, 11 (2015), pp. 211-218

Jianjian Lin, Yoon-Uk Heo, Andrew Nattestad*, Yusuke Yamauchi, Shi Xue Dou, **Jung Ho Kim***, "Mesoporous Hierarchical Anatase for Dye-sensitized Solar Cells Achieving Over 10% Conversion Efficiency", **Electrochimica Acta**, 153 (2015), pp. 393-398

Yoshitaka Nakayama, Mislav Mustapić, Haleh Ebrahimian, Pawel Wagner, **Jung Ho Kim**, Md Shahriar Al Hossain, Joseph Horvat, Boris Martinac*, "Magnetic nanoparticles for "smart liposomes", **European Biophysics Journal**, DOI: 10.1007/s00249-015-1059-0

Minoru Maeda, Daisuke Uchiyama, Md Shahriar Al Hossain, Zongqing Ma, Mohammed Shahabuddin, **Jung Ho Kim***, "Control of core structure in MgB₂ wire through tailoring boron powder", **Journal of Alloys and Compounds**, 636 (2015), pp. 29-33

Dipak Patel, Md Shahriar Al Hossain, Khay Wai See, Xun Xu, Shaon Barua, Zongqing Ma, Seyong Choi, Mike Tomsic, **Jung Ho Kim***, "MgB₂ superconducting joints for persistent current operation", **Superconductor Science and Technology**, 28 (2015), pp. 065017

Rahul R Salunkhe, Heejoon Ahn, **Jung Ho Kim**, Yusuke Yamauchi*, "Rational design of coaxial structured carbon nanotube–manganese oxide (CNT–MnO₂) for energy storage application", **Nanotechnology**, 26 (2015), pp. 204004

Rahul R Salunkhe, Mohamed B Zakaria, Yuichiro Kamachi, Saad M Alshehri, Tansir Ahamad, Nagy L Torad, Shi Xue Dou, **Jung Ho Kim**, Yusuke Yamauchi*, "Fabrication of asymmetric supercapacitors based on coordination polymer derived nanoporous materials", **Electrochimica Acta**, DOI: 10.1016/j.electacta.2015.05.034

Rahul R Salunkhe, Jing Tang, Yuichiro Kamachi, Teruyuki Nakato, **Jung Ho Kim***, Yusuke Yamauchi*, "A concept for asymmetric supercapacitors using 3D nanoporous carbon and cobalt oxide electrodes synthesized from single metal organic framework", **ACS nano**, 9 (2015), pp. 6288–6296

Jing Tang, Tao Wang, Victor Malgras, **Jung Ho Kim**, Yusuke Yamauchi*, Jianping He*, "A facile preparation of mesoporous carbon composites with well-dispersed Pd nanoparticles and their utilization as supports for Pt catalysts", **Electrochimica Acta**, DOI: 10.1016/j.electacta.2015.04.154

Cuiling Li, Victor Malgras, Saad M Alshehri, **Jung Ho Kim**, Yusuke Yamauchi*, "Electrochemical synthesis of mesoporous Pt nanowires with highly electrocatalytic activity toward methanol oxidation reaction", **Electrochimica Acta**, DOI: 10.1016/j.electacta.2015.04.028

Jun Hyung Lim, Geun Chul Park, Seung Muk Lee, Jung Heon Lee, Butaek Lim, Soo Min Hwang, **Jung Ho Kim**, Hansoo Park, Jinho Joo*, Young-Pil Kim*, "Surface-tunable bioluminescence resonance energy transfer via geometry-controlled ZnO nanorod coordination" **Small**, 11 (2015), pp. 3469-3475

Victor Malgras, Andrew Nattestad*, Yusuke Yamauchi, Shi Xue Dou, **Jung Ho Kim***, "The effect of surface passivation on the structure of sulphur-rich PbS colloidal quantum dots for photovoltaic application" **Nanoscale**, 7 (2015), pp. 5706-5711

Shaon Barua, Dipak Patel, Nasser Alzayed, Mohammed Shahabuddin, Jafar Meethale Parakkandy, M Shahabuddin Shah, Zongqing Ma, Mislav Mustapić, Md Shahriar Al Hossain*, **Jung Ho Kim**, "Correlation between in-field J_c enhancement and grain connectivity in co-doped MgB₂ superconductor", **Materials**

Letters, 139 (2015), pp. 333-335

Ki Jae Kim, Min-Sik Park*, Young-Jun Kim, **Jung Ho Kim***, Shi Xue Dou, M Skyllas-Kazacos*, "A technology review of electrodes and reaction mechanisms in vanadium redox flow batteries", **Journal of Materials Chemistry A**, DOI: 10.1039/C5TA02613J

Qiannan Liu, Ziqi Sun*, Yuhai Dou, **Jung Ho Kim**, Shi Xue Dou, "Two-step self-assembly of hierarchically-ordered nanostructures", **Journal of Materials Chemistry A**, 3 (2015), pp. 11688-11699

Soo Min Hwang, So Yeun Kim, Jae-Geun Kim, Ki Jae Kim, Jong-Won Lee, Min-Sik Park*, Young-Jun Kim, Mohammed Shahabuddin, Yusuke Yamauchi, **Jung Ho Kim***, "Electrospun manganese–cobalt oxide hollow nanofibres synthesized via combustion reactions and their lithium storage performance", **Nanoscale**, 7 (2015), pp. 8351-8355