

PUBLICATIONS (PEER-REVIEWED)

- S.F. Tan, S.W. Chee, Z. Baraissov, H. Jin, T.L. Tan, and U. Mirsaidov. "Real-Time Imaging of Nanoscale Redox Reactions over Bimetallic Nanoparticles" *Advanced Functional Materials*, <https://doi.org/10.1002/adfm.201903242>, (2019)
- S.W. Chee, Z. M. Wong, Z. Baraissov, S.F. Tan, T.L. Tan, and U. Mirsaidov. "Interface Mediated Kirkendall Effect and Nanoscale Void Migration in Bimetallic Nanoparticles during Interdiffusion" *Nature Communications*, 10, 2831 (2019)
- S.W. Chee, U. Anand, G. Bisht, S.F. Tan, U. Mirsaidov. "Direct Observations of the Rotation and Translation of Anisotropic Nanoparticles Adsorbed at a Liquid-Solid Interface" *Nano Letters*, 19, 2871-2878 (2019)
- M.-Q. Yang, L. Shen, Y.Y. Lu, S.W. Chee, X. Lu, X. Chi, Z.H. Chen, Q.-H. Xu, U. Mirsaidov, G.W. Ho, "Disorder Engineering in Monolayer Nanosheets Enabling Photothermic Catalysis for Full Solar Spectrum (250–2500 nm) Harvesting", *Angew. Chem* 131, 2933-2933 (2019)
- S.W. Chee, M. Kammler, J. Graham, L. Gignac, M.C. Reuter, R. Hull and F.M. Ross, "Directed Self-Assembly of Ge Quantum Dots Using Focused Si²⁺ Ion Beam Patterning" *Scientific Reports*, 8, 9361 (2018)
- S.W. Chee, S.F. Tan, Z. Baraissov, M. Bosman and U. Mirsaidov, "Direct Observation of the Nanoscale Kirkendall Effect during Galvanic Replacement Reactions" *Nature Communications*, 8, 1224 (2017)
- S.F. Tan, S.W. Chee, G.H. Lin and U. Mirsaidov, "Direct Observation of Interaction between Nanoparticles and Their Self-Assembly in Solution" *Accounts for Chemical Research*, Vol 50, 1303-1312 (2017)
- S.W. Chee, Z. Baraissov, D. Loh, P. Matsudaira and U. Mirsaidov, "Desorption-Mediated Diffusion of Nanoparticles at the Liquid-Solid Interface" *The Journal of Physical Chemistry C*, Vol 120, 36, 20462-20470 (2016)
- G.H. Lin, S.W. Chee, S. Raj, P. Krl and U. Mirsaidov, "Dynamics of Nanoparticle Chain Formation" *ACS Nano*, Vol 10, Issue 8, 7443-7450 (2016)
- S. F. Tan, S. W. Chee, G.H. Lin, M. Bosman, M. Lin, U. Mirsaidov and C.A. Nijhuis, "Real-Time Imaging of the Formation of Au-Ag Core-Shell Nanoparticles" *Journal of the American Chemical Society*, Vol 138, Issue 16, 5190-5193 (2016)
- S.W. Chee, S.H. Pratt, K. Hattar, D.J. Duquette, F.M. Ross and R. Hull, "Studying localized corrosion using liquid cell transmission electron microscopy" *Chemical Communications*, Vol 51, Issue 1, 168-171 (2015)
- B. Stumphy, S.W. Chee, N.Q. Vo, R.S. Averback, P. Bellon and M. Ghafari, "Irradiation-induced patterning in dilute Cu-Fe alloys" *Journal of Nuclear Materials*, Vol 453, Issues 1-3, 66-74 (2014)
- S.W. Chee, D. Duquette, F.M. Ross and R. Hull, "Metastable Structures in Al Thin Films Prior to the Onset of Corrosion Pitting as Observed using Liquid Cell Transmission Electron Microscopy" *Microscopy and Microanalysis*, Vol 20, Issue 2, 462-468 (2014)

- S.W. Chee and R. Sharma, "Controlling the size and the activity of Fe particles for synthesis of carbon nanotubes" *Micron*, Vol 43, Issue 11, 1181 (2012)
- R. Sharma, S.W. Chee, A. Herzing, R. Miranda and P. Rez, "Evaluation of the Role of Au in Improving Catalytic Activity of Ni Nanoparticles for the Formation of One-Dimensional Carbon Nanostructures" *Nano Letters*, Vol 11, Issue 6, 2464 (2011)
- X.F. Feng, S.W. Chee, R. Sharma, K. Liu, R.F. Zhou, X. Xie, X.Y. Lin, Q.Q. Li, S.S. Fan, K.L. Jiang, "In-situ TEM Observation of the Gasification and Growth of Carbon Nanotubes through Iron Catalysts" *Nano Research*, Vol 4, Issue 8, 767 (2011)
- S.W. Chee, S. Sivaramakrishnan, R. Sharma and J.M. Zuo, "Electron beam induced growth of TiO₂ nanostructures" *Microscopy and Microanalysis*, Vol 17, Issue 2, 274 (2011)
- N.Q. Vo, S.W. Chee, D. Schwen, X. Zhang, P. Bellon and R. S. Averback, "Microstructural stability of nanostructured Cu alloys during high-temperature irradiation" *Scripta Materialia*, Vol 63, Issue 9, 929 (2010)
- S.W. Chee, B. Stumphy, N.Q. Vo, R.S. Averback and P. Bellon, "Dynamic self-organization of Cu alloys under ion irradiation" *Acta Materialia*, Vol 58, Issue 12, 4088 (2010)
- S.W. Chee, P. Krasnochtchekov and R. S. Averback, "Growth of Co precipitates in irradiated dilute Ag-Co alloys" *J. Appl. Phys.*, 101, 014315 (2007)

CONFERENCE PROCEEDINGS (PEER-REVIEWED)

- A. Pinkowitz, S.W. Chee, B.J. Engler, D.J Duquette and R. Hull, "An In Situ Transmission Electron Microscopy Study of Localized Corrosion on Aluminum" Vol 1, Issue 25, 1877 (2016)
- M. Gherasimova, S.W. Chee, R. Hull, M.C. Reuter and F.M. Ross, "Controlled Nucleation of Ge Islands on Si and Self-Assembly of Nanoscale Island Clusters" 22nd Annual Connecticut Microelectronics and Optoelectronics – CMOC 2013 Symposium, *International Journal of High Speed Electronics and Systems*, 23, 1420003 (2014)
- S.W. Chee, F.M. Ross, D. Duquette and R. Hull, "Studies of Corrosion of Al Thin Films using Liquid Cell Transmission Electron Microscopy" 2012 Fall MRS Meeting Proceedings, mrsf12-1525-ss11-03 (2013)
- S.W. Chee, M. Kammler, P. Balasubramanian, M.C. Reuter, R. Hull and F.M. Ross, "Microstructural Changes in Silicon Induced by Patterning with Focused Ion Beams of Ga, Si and Au", *Proceedings of the Thirteenth Conference on Frontiers of Electron Microscopy in Materials Science, Ultramicroscopy*, 127, 126-131 (2013)

BOOK CHAPTERS

- S.W. Chee and G.M. Burke, "Applications of Liquid Cell Transmission Electron Microscopy in Corrosion Science", in F. M. Ross (Ed.), "Liquid Cell Electron Microscopy", Cambridge University Press, United Kingdom (2017)

- N. de Jonge, N. Browning, J.E. Evans, S.W. Chee and F.M. Ross, "Resolution in Liquid Cell Experiments", "Liquid Cell Electron Microscopy", Cambridge University Press, United Kingdom (2017)