List of publications

Journals:

[1] **S. Zhuk**, T.K.S. Wong, E. Tyukalova, S. Guchhait, D.H.L. Seng, S. Tripathy, T.I. Wong, M. Sharma, H. Medina, M. Duchamp, L.H. Wong, G.K. Dalapati, Effect of TaN intermediate layer on the back contact reaction of sputter-deposited Cu poor Cu_2ZnSnS_4 and Mo. Applied Surface Science, 471, 277 – 288, 2019.
[2] **S. Zhuk**, A. Kushwaha, T.K.S. Wong, S. Masudy-Panah, A. Smirnov, G.K. Dalapati, Critical review on sputter-deposited Cu_2ZnSnS_4 (CZTS) based thin film photovoltaic technology focusing on device architecture and absorber quality on the solar cells performance, Solar Energy Materials and Solar Cells, 171, 239 – 252, 2017 (33 citations according to Thomson Reuters Web of Science database. Accessed on 18 July 2019).
[3] G.K. Dalapati, **S. Zhuk**, S. Masudy-Panah, A. Kushwaha, H.L. Seng, V. Chellappan, V. Suresh, Z.H. Su, S.K. Batabyl, C.C. Tan, A. Guchhait, L.H. Wong, T.K.S. Wong, S. Tripathy, Impact of molybdenum out diffusion and interface quality on the performance of sputter grown CZTS based solar cells, Scientific Reports, 7, 1350, 2017 (18 citations according to Thomson Reuters Web of Science database. Accessed on 18 July 2019).
[4] G.K. Dalapati, A.K. Kushwaha, M. Sharma, V. Suresh, S. Shannigrahi, **S. Zhuk**, S. Masudy-Panah, Transparent heat regulating (THR) materials and coatings for energy saving window applications: Impact of materials design, micro-structural, and interface quality on the THR performance. Progress in Materials Science, 95, 42 – 131, 2018.
[5] S. Masudy-Panah, **S. Zhuk**, H.R. Tan, X. Gong, G.K. Dalapati, Palladium nanostructure incorporated cupric oxide thin film with strong optical absorption, compatible charge collection and low recombination loss for low cost solar cell applications. Nano Energy, 46, 158 – 167, 2018.
[6] T.K.S. Wong, **S. Zhuk**, S. Masudy-Panah, G.K. Dalapati, Current status and future prospects of copper oxide heterojunction solar cells, MDPI Materials, 9, 2016.

Conferences:

[1] **S. Zhuk**, A. Kistanov, T.K.S. Wong, G.K. Dalapati, A combined study: experimental and density functional theory simulation of carbon substituted Cu_2ZnSnS_4 (CZTS), 10^{th} International Conference on Materials for Advanced Technologies, Singapore, 2019.
[2] **S. Zhuk**, T.K.S. Wong, V. Tunuguntla, S. Tripathy, T.I. Wong, A. Stsiapanau, A. Smirnov, L.H. Wong, G.K. Dalapati, Molybdenum back interface engineering using ultrathin intermediate layers for solution processed $Cu_2(Cd,Zn)SnS_4$ solar cells, in proceedings of 35^{th} European Photovoltaic Solar Energy Conference and Exhibition, Brussels, Belgium, 882 – 885, 2018.
[3] **S. Zhuk**, T.K.S. Wong, A. Guchhait, G.K. Dalapati, Straightforward route for the fabrication of ultrathin Cu-poor Zn-rich Cu_2ZnSnS_4 thin film solar cells using RF sputtering of non-stoichiometric CZTS target, IEEE 8^{th} International Nanoelectronics Conference, Kuala Lumpur, Malaysia, 2018.
[4] **S. Zhuk**, T.K.S. Wong, G.K. Dalapati, Cu_2ZnSnS_4 (CZTS) thin films prepared by RF sputtering of non-stoichiometric quaternary CZTS target, 9^{th} International Conference on Materials for Advanced Technologies, Singapore, 2017.