Mitsutaro Umehara

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Cu ₂ Sn _{1-<i>x</i>} Ge _{<i>x</i>} S ₃ (<i>x</i> = 0.17) Thin-Film Solar Cells with High Conversion Efficiency of 6.0%. Applied Physics Express, 2013, 6, 045501.	2.4	132
2	Cu ₂ ZnSnS ₄ photovoltaic cell with improved efficiency fabricated by highâ€ŧemperature annealing after CdS bufferâ€ŀayer deposition. Progress in Photovoltaics: Research and Applications, 2017, 25, 14-22.	8.1	97
3	Cu ₂ Sn _{1â^`} _x Ge _x S ₃ solar cells fabricated with a graded bandgap structure. Applied Physics Express, 2016, 9, 072301.	2.4	71
4	Analyzing machine learning models to accelerate generation of fundamental materials insights. Npj Computational Materials, 2019, 5, .	8.7	60
5	Energy level diagram around Ge-rich grain boundaries in Cu2Sn1-xGexS3 (CTGS) thin-film solar cells. Solar Energy Materials and Solar Cells, 2015, 134, 1-4.	6.2	23
6	Photovoltaic properties of Cu ₂ ZnSnS ₄ cells fabricated using ZnSnO and ZnSnO/CdS buffer layers. Japanese Journal of Applied Physics, 2016, 55, 112302.	1.5	21
7	Combinatorial alloying improves bismuth vanadate photoanodes <i>via</i> reduced monoclinic distortion. Energy and Environmental Science, 2018, 11, 2444-2457.	30.8	21
8	Multi-component background learning automates signal detection for spectroscopic data. Npj Computational Materials, 2019, 5, .	8.7	21
9	Wide bandgap Cu2ZnSn1â "Ge S4 fabricated on transparent conductive oxide-coated substrates for top-cells of multi-junction solar cells. Journal of Alloys and Compounds, 2016, 689, 713-717.	5.5	16
10	Multi-modal optimization of bismuth vanadate photoanodes <i>via</i> combinatorial alloying and hydrogen processing. Chemical Communications, 2019, 55, 489-492.	4.1	15
11	Improvement of red light response of Cu2Sn1â^'xGexS3 solar cells by optimization of CdS buffer layers. Journal of Applied Physics, 2015, 118, 154502.	2.5	10
12	Enhanced Bulk Transport in Copper Vanadate Photoanodes Identified by Combinatorial Alloying. Matter, 2020, 3, 1601-1613.	10.0	8
13	Band slope in CdS layer of ZnO:Ga/CdS/Cu2ZnSnS4photovoltaic cells revealed by hard X-ray photoelectron spectroscopy. Applied Physics Letters, 2016, 109, 203902.	3.3	6
14	Laser Annealing to Form High-Temperature Phase of FeS2. Japanese Journal of Applied Physics, 2012, 51, 02BP10.	1.5	6
15	Bi Alloying into Rare Earth Double Perovskites Enhances Synthesizability and Visible Light Absorption. ACS Combinatorial Science, 2020, 22, 895-901.	3.8	5
16	Alkaline-stable nickel manganese oxides with ideal band gap for solar fuel photoanodes. Chemical Communications, 2018, 54, 4625-4628.	4.1	2