

# Ming-Hung Tsai

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5998835/ming-hung-tsai-publications-by-citations.pdf>

**Version:** 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

48  
papers

6,268  
citations

32  
h-index

49  
g-index

49  
ext. papers

7,752  
ext. citations

4.4  
avg, IF

6.46  
L-index

#	Paper	IF	Citations
48	High-Entropy Alloys: A Critical Review. <i>Materials Research Letters</i> , <b>2014</b> , 2, 107-123	7.4	1431
47	Sluggish diffusion in CoCrFeMnNi high-entropy alloys. <i>Acta Materialia</i> , <b>2013</b> , 61, 4887-4897	8.4	1049
46	Microstructure and wear behavior of Al <sub>x</sub> Co <sub>1.5</sub> CrFeNi <sub>1.5</sub> Ti <sub>y</sub> high-entropy alloys. <i>Acta Materialia</i> , <b>2011</b> , 59, 6308-6317	8.4	786
45	Enhanced mechanical properties of HfMoTaTiZr and HfMoNbTaTiZr refractory high-entropy alloys. <i>Intermetallics</i> , <b>2015</b> , 62, 76-83	3.5	273
44	Deformation and annealing behaviors of high-entropy alloy Al <sub>0.5</sub> CoCrCuFeNi. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 486, 427-435	5.7	215
43	Ultrastrong Mg Alloy via Nano-spaced Stacking Faults. <i>Materials Research Letters</i> , <b>2013</b> , 1, 61-66	7.4	204
42	Criterion for Sigma Phase Formation in Cr- and V-Containing High-Entropy Alloys. <i>Materials Research Letters</i> , <b>2013</b> , 1, 207-212	7.4	196
41	Effect of temperature on mechanical properties of Al <sub>0.5</sub> CoCrCuFeNi wrought alloy. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 490, 160-165	5.7	193
40	Physical Properties of High Entropy Alloys. <i>Entropy</i> , <b>2013</b> , 15, 5338-5345	2.8	161
39	Thermal Stability and Performance of NbSiTaTiZr High-Entropy Alloy Barrier for Copper Metallization. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, H1161	3.9	127
38	Diffusion barrier properties of AlMoNbSiTaTiVZr high-entropy alloy layer between copper and silicon. <i>Thin Solid Films</i> , <b>2008</b> , 516, 5527-5530	2.2	121
37	Significant hardening due to the formation of a sigma phase matrix in a high entropy alloy. <i>Intermetallics</i> , <b>2013</b> , 33, 81-86	3.5	112
36	Effect of nitrogen content and substrate bias on mechanical and corrosion properties of high-entropy films (AlCrSiTiZr) <sub>100</sub> N <sub>x</sub> . <i>Surface and Coatings Technology</i> , <b>2012</b> , 206, 4106-4112	4.4	104
35	Solution strengthening of ductile refractory HfMo <sub>x</sub> NbTaTiZr high-entropy alloys. <i>Materials Letters</i> , <b>2016</b> , 175, 284-287	3.3	97
34	Simultaneously increasing the strength and ductility of a refractory high-entropy alloy via grain refining. <i>Materials Letters</i> , <b>2016</b> , 184, 200-203	3.3	89
33	A second criterion for sigma phase formation in high-entropy alloys. <i>Materials Research Letters</i> , <b>2016</b> , 4, 90-95	7.4	83
32	Structure and properties of two AlCrNbSiTi high-entropy nitride coatings. <i>Surface and Coatings Technology</i> , <b>2013</b> , 221, 118-123	4.4	83

31	Thermally stable amorphous (AlMoNbSiTaTiVZr) <sub>50N50</sub> nitride film as diffusion barrier in copper metallization. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 052109	3.4	74
30	Morphology, structure and composition of precipitates in Al <sub>0.3</sub> CoCrCu <sub>0.5</sub> FeNi high-entropy alloy. <i>Intermetallics</i> , <b>2013</b> , 32, 329-336	3.5	64
29	Influence of substrate temperature on structure and mechanical, properties of multi-element (AlCrTaTiZr) <sub>N</sub> coatings. <i>Surface and Coatings Technology</i> , <b>2007</b> , 201, 6993-6998	4.4	64
28	Effects of substrate bias on the structure and mechanical properties of (Al <sub>1.5</sub> CrNb <sub>0.5</sub> Si <sub>0.5</sub> Ti) <sub>N<sub>x</sub></sub> coatings. <i>Thin Solid Films</i> , <b>2012</b> , 520, 6183-6188	2.2	60
27	Evolution of structure and properties of multi-component (AlCrTaTiZr) <sub>Ox</sub> films. <i>Thin Solid Films</i> , <b>2010</b> , 518, 2732-2737	2.2	59
26	Strong amorphization of high-entropy AlBCrSiTi nitride film. <i>Thin Solid Films</i> , <b>2012</b> , 520, 2613-2618	2.2	56
25	Superior Oxidation Resistance of (Al <sub>0.34</sub> Cr <sub>0.22</sub> Nb <sub>0.11</sub> Si <sub>0.11</sub> Ti <sub>0.22</sub> ) <sub>50N50</sub> High-Entropy Nitride. <i>Journal of the Electrochemical Society</i> , <b>2013</b> , 160, C531-C535	3.9	54
24	Effect of atomic size difference on the type of major intermetallic phase in arc-melted CoCrFeNi <sub>X</sub> high-entropy alloys. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 695, 1479-1487	5.7	46
23	Refractory high entropy superalloys (RSAs). <i>Scripta Materialia</i> , <b>2020</b> , 187, 445-452	5.6	43
22	Incorrect predictions of simple solid solution high entropy alloys: Cause and possible solution. <i>Scripta Materialia</i> , <b>2017</b> , 127, 6-9	5.6	41
21	Three Strategies for the Design of Advanced High-Entropy Alloys. <i>Entropy</i> , <b>2016</b> , 18, 252	2.8	40
20	Effects of nitrogen flow ratio on the structure and properties of reactively sputtered (AlMoNbSiTaTiVZr) <sub>N<sub>x</sub></sub> coatings. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 235402	3	39
19	Corrosion mechanism of annealed equiatomic AlCoCrFeNi tri-phase high-entropy alloy in 0.5 M H <sub>2</sub> SO <sub>4</sub> aerated aqueous solution. <i>Corrosion Science</i> , <b>2019</b> , 157, 462-471	6.8	34
18	Intermetallic Phases in High-Entropy Alloys: Statistical Analysis of their Prevalence and Structural Inheritance. <i>Metals</i> , <b>2019</b> , 9, 247	2.3	33
17	Intrinsic surface hardening and precipitation kinetics of Al <sub>0.3</sub> CrFe <sub>1.5</sub> MnNi <sub>0.5</sub> multi-component alloy. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 551, 12-18	5.7	32
16	Machining Performance of Sputter-Deposited (Al <sub>0.34</sub> Cr <sub>0.22</sub> Nb <sub>0.11</sub> Si <sub>0.11</sub> Ti <sub>0.22</sub> ) <sub>50N50</sub> High-Entropy Nitride Coatings. <i>Coatings</i> , <b>2015</b> , 5, 312-325	2.9	32
15	Microstructure and aging behaviour of Al <sub>5</sub> Cr <sub>32</sub> Fe <sub>35</sub> Ni <sub>22</sub> Ti <sub>6</sub> high entropy alloy. <i>Materials Science and Technology</i> , <b>2015</b> , 31, 1165-1170	1.5	28
14	Theories for predicting simple solid solution high-entropy alloys: Classification, accuracy, and important factors impacting accuracy. <i>Scripta Materialia</i> , <b>2020</b> , 188, 80-87	5.6	27

13	Dislocations with edge components in nanocrystalline bcc Mo. <i>Journal of Materials Research</i> , <b>2013</b> , 28, 1820-1826	2.5	21
12	Reply to comments on "Sluggish diffusion in Co-Cr-Fe-Mn-Ni high-entropy alloys" by K.Y. Tsai, M.H. Tsai and J.W. Yeh, <i>Acta Materialia</i> 61 (2013) 4887-4897. <i>Scripta Materialia</i> , <b>2017</b> , 135, 158-159	5.6	19
11	On the phase constituents of three CoCrFeNiX (X = V, Nb, Ta) high-entropy alloys after prolonged annealing. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 823, 153524	5.7	18
10	Microstructure and tensile properties of Al <sub>0.5</sub> CoCrCuFeNi alloys produced by simple rolling and annealing. <i>Materials Science and Technology</i> , <b>2015</b> , 31, 1178-1183	1.5	16
9	Atomic-scale homogenization in an fcc-based high-entropy alloy via severe plastic deformation. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 686, 15-23	5.7	15
8	Lattice distortion and atomic ordering of the sigma precipitates in CoCrFeNiMo high-entropy alloy. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 851, 156909	5.7	12
7	Mechanical and thermodynamic data-driven design of Al-Co-Cr-Fe-Ni multi-principal element alloys. <i>Materials Today Communications</i> , <b>2021</b> , 26, 102096	2.5	5
6	High-Entropy Coatings <b>2016</b> , 469-491		4
5	Quantitative prediction of solid solubility limit in single phase high-entropy alloys. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 141906	3.4	2
4	On the phase constituents of four CoCrFeNiX (X = Y, Ti, Zr, Hf) high-entropy alloys after prolonged annealing. <i>Journal of Materials Research and Technology</i> , <b>2020</b> , 9, 11231-11243	5.5	2
3	Effect of Cu on the interfacial reaction between Sn-based solders and FeCoNiCu alloys. <i>Intermetallics</i> , <b>2022</b> , 144, 107530	3.5	2
2	On the phase constituents of three CoCrFeNiX (X = Cr, Mo, W) high-entropy alloys after prolonged annealing. <i>Materials Chemistry and Physics</i> , <b>2022</b> , 276, 125431	4.4	1
1	On the phase constituents of three CoCrFeNiX (X = B, Al, Ga) high-entropy alloys after prolonged annealing. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 900, 163388	5.7	