

Hatem S Zurob

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Strength-ductility synergy in a 1.4 GPa austenitic steel with a heterogeneous lamellar microstructure. <i>Journal of Materials Science and Technology</i> , 2022, 106, 133-138.	5.6	22
2	A novel approach to producing architected ultra-high strength dual phase steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 833, 142582.	2.6	7
3	Superior fracture toughness in a high-strength austenitic steel with heterogeneous lamellar microstructure. <i>Acta Materialia</i> , 2022, 226, 117642.	3.8	53
4	Effect of temperature, carbon content and crystallography on the lengthening kinetics of bainitic ferrite laths. <i>Materials Characterization</i> , 2022, 187, 111860.	1.9	2
5	NbC precipitation during two-pass hot deformation of a nickel-based model alloy at 700 °C: Experiments and modelling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 802, 140447.	2.6	5
6	Calculation of Initial Stage of Solidified Shell Deformation during $\hat{\Gamma}$ to $\hat{\Gamma}^3$ Transformation in Mold. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2021, 107, 112-120.	0.1	0
7	In Situ Study on Interrupted Growth Behavior and Crystallography of Bainite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 817-825.	1.1	9
8	Mechanical Properties of Ausformed Carbide-Free Bainite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 2402-2410.	1.1	2
9	Effect of Heat Treatment on Microstructure Evolution of X38CrMoV5-1 Hot-Work Tool Steel Produced by L-PBF. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 2564-2575.	1.1	6
10	The effect of chemical patterning induced by cyclic plasticity on the formation of precipitates during aging of an Al-Mg-Si alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 815, 141265.	2.6	14
11	On the Decarburization of Surface Pearlite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 3198.	1.1	0
12	Workshop focuses on the rise in MSE undergraduates. <i>MRS Bulletin</i> , 2021, 46, 5-11.	1.7	0
13	NbC precipitation during multi-pass deformation of a nickel-based model alloy: Experiments and modelling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 772, 138748.	2.6	10
14	Transformation kinetics of carbide-free bainitic steels during isothermal holding above and below MS. <i>Journal of Materials Research and Technology</i> , 2020, 9, 13594-13606.	2.6	12
15	Novel approach for the development of tailored heterogenous structures in steel. <i>Materialia</i> , 2020, 13, 100831.	1.3	2
16	New insights into the effects of deformation below-M on isothermal kinetics of bainitic transformation. <i>Journal of Materials Research and Technology</i> , 2020, 9, 15750-15758.	2.6	7
17	Increasing Necking Strain through Corrugation: Identifying Composite Systems That Can Benefit from Corrugated Geometry. <i>Materials</i> , 2020, 13, 5175.	1.3	2
18	A Physics-Based Mean-Field Model for Ferrite Recovery and Recrystallization. <i>Metals</i> , 2020, 10, 622.	1.0	5

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19	Use of in-situ laser-ultrasonics measurements to develop robust models combining deformation, recovery, recrystallization and grain growth. <i>Materialia</i> , 2020, 12, 100812.	1.3	8
20	Evaluating the Effect of the Competition between NbC Precipitation and Grain Size Evolution on the Hot Ductility of Nb Containing Steels. <i>Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan</i> , 2020, 106, 429-437.	0.1	0
21	Study of processing, microstructure and mechanical properties of hot rolled ultra-high strength steel. <i>Ironmaking and Steelmaking</i> , 2019, 46, 535-541.	1.1	9
22	Effects of solutes and temperature on high-temperature deformation and subsequent recovery in hot-rolled low alloy steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 765, 138324.	2.6	11
23	Austenite Grain Growth in High Manganese Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 5760-5766.	1.1	5
24	Effect of Solute Nb on Grain Growth in Fe-30ÅPct Mn Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 3674-3682.	1.1	8
25	Strong and ductile steel via high dislocation density and heterogeneous nano/ultrafine grains. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 759, 1-10.	2.6	46
26	A New Alloy System Having Autogenous Grain Pinning at High Temperature. <i>Minerals, Metals and Materials Series</i> , 2019, , 73-86.	0.3	0
27	Control of Upstream Austenite Grain Coarsening during the Thin-Slab Cast Direct-Rolling (TSCDR) Process. <i>Metals</i> , 2019, 9, 158.	1.0	5
28	Calculation of Initial Stage of Solidified Shell Deformation during $\delta \rightarrow \gamma$ Transformation in Mold. <i>ISIJ International</i> , 2019, 59, 2036-2043.	0.6	5
29	Effect of Mn and C on Grain Growth in Mn Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 905-914.	1.1	7
30	Effect of Strain Rate on the Bainitic Transformation in Fe-C-Mn-Si Medium-Carbon Bainitic Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 573-580.	1.1	14
31	Control of edge breaks during cold mill processing of commercial and drawing quality low-carbon steels. <i>Ironmaking and Steelmaking</i> , 2019, 46, 656-662.	1.1	6
32	Evaluating the Effect of the Competition between NbC Precipitation and Grain Size Evolution on the Hot Ductility of Nb Containing Steels. <i>ISIJ International</i> , 2019, 59, 1064-1071.	0.6	10
33	Corrugation Reinforced Composites: A Method for Filling Holes in Materialâ€™Property Space. <i>Advanced Engineering Materials</i> , 2018, 20, 1700834.	1.6	5
34	Comparing the effect of geometry on the stress-strain response of isolated corrugation structures and corrugation reinforced composite structures. <i>Composite Structures</i> , 2018, 187, 308-315.	3.1	4
35	Effect of C and N and their absence on the kinetics of austenite-ferrite phase transformations in Fe-0.5Mn alloy. <i>Acta Materialia</i> , 2018, 150, 224-235.	3.8	5
36	Development of medium-to-high carbon hot-rolled steel strip on a thin slab casting direct strip production complex. <i>Ironmaking and Steelmaking</i> , 2018, 45, 603-610.	1.1	6

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37	Using architected materials to control localized shear fracture. Acta Materialia, 2018, 143, 298-305.	3.8	24
38	Effect of water vapour partial pressure on the chromia (Cr ₂ O ₃)-based scale stability. Canadian Metallurgical Quarterly, 2018, 57, 89-98.	0.4	9
39	Characterization of the Isothermal Precipitation Kinetics of an Al-Zn-Mg-Cu Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5157-5168.	1.1	10
40	Interface Segregation and Nitrogen Measurement in Fe-Mn-N Steel by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 385-395.	0.2	8
41	On Control of Grain Coarsening of Austenite by Nano-Scale Precipitate Engineering of TiN-NbC Composite in Ti-Nb Microalloyed Steel. , 2016, , 119-124.		0
42	Characterizing precipitate evolution of an Al-Zn-Mg-Cu-based commercial alloy during artificial aging and non-isothermal heat treatments by in situ electrical resistivity monitoring. Materials Characterization, 2016, 117, 47-56.	1.9	46
43	Molecular Dynamics Study of Solute Pinning Effects on Grain Boundary Migration in the Aluminum Magnesium Alloy System. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 1889-1897.	1.1	19
44	New insights to the effects of ausforming on the bainitic transformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 34-40.	2.6	76
45	Model Fe-Al Steel with Exceptional Resistance to High Temperature Coarsening. Part II: Experimental Validation and Applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 190-198.	1.1	2
46	Model Fe-Al Steel with Exceptional Resistance to High Temperature Coarsening. Part I: Coarsening Mechanism and Particle Pinning Effects. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 178-189.	1.1	4
47	A Comparison of Ferrite Growth Kinetics under Denitriding and Decarburizing Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2449-2454.	1.1	9
48	Mechanical Behavior of Carbide-free Medium Carbon Bainitic Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1352-1361.	1.1	24
49	Analytical Model of the Unbending Behavior of Corrugated Reinforcements. Advanced Engineering Materials, 2014, 16, 872-877.	1.6	9
50	An Original Way for Producing a 2.4 GPa Strength Ductile Steel by Rolling of Martensite. ISIJ International, 2014, 54, 235-239.	0.6	4
51	Hot Deformation Behavior of an Fe-Al Steel in the Two Phase Region. , 2014, , 927-933.		0
52	A Novel Approach to Model Static Recrystallization of Austenite During Hot Rolling of Nb Microalloyed Steel. Part I: Precipitate-Free Case. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1862-1871.	1.1	30
53	Influence of Microstructural Length Scale on the Strength and Annealing Behavior of Pearlite, Bainite, and Martensite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1454-1461.	1.1	10
54	Recrystallization and Grain Coarsening Control in Processing High Niobium Microalloyed Line Pipe Steels. Materials Science Forum, 2013, 753, 391-396.	0.3	3

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55	Driving Force and Logic of Development of Advanced High Strength Steels for Automotive Applications. Steel Research International, 2013, 84, 937-947.	1.0	165
56	Kinetics of Delta-Ferrite to Austenite Phase Transformation in a Two-Phase Fe-Al-C Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3349-3357.	1.1	11
57	ALEM: A Ten-Year History of Discussions of Alloying-Element Interactions with Migrating Interfaces. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3703-3718.	1.1	70
58	Study of Grain-Growth Kinetics in Delta-Ferrite and Austenite with Application to Thin-Slab Cast Direct-Rolling Microalloyed Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2112-2120.	1.1	30
59	Studies on softening kinetics of niobium microalloyed steel using stress relaxation technique. Frontiers of Materials Science in China, 2010, 4, 197-201.	0.5	5
60	Compositionally Graded Steels: A Strategy for Materials Development. Advanced Engineering Materials, 2009, 11, 992-999.	1.6	19
61	Effect of Nb on Ferrite Recrystallization and Austenite Decomposition in Microalloyed Steels. Steel Research International, 2007, 78, 210-215.	1.0	5
62	Modeling of the dynamics of transient liquid films in ternary systems. Journal of Phase Equilibria and Diffusion, 2006, 27, 699-706.	0.5	1