

# Hatem S Zurob

## List of Publications by Year in descending order

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docs citations

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times ranked

686  
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#	ARTICLE	IF	CITATIONS
1	Driving Force and Logic of Development of Advanced High Strength Steels for Automotive Applications. <i>Steel Research International</i> , 2013, 84, 937-947.	1.0	165
2	New insights to the effects of ausforming on the bainitic transformation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 626, 34-40.	2.6	76
3	ALEM: A Ten-Year History of Discussions of Alloying-Element Interactions with Migrating Interfaces. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 3703-3718.	1.1	70
4	Superior fracture toughness in a high-strength austenitic steel with heterogeneous lamellar microstructure. <i>Acta Materialia</i> , 2022, 226, 117642.	3.8	53
5	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. <i>Materials Characterization</i> , 2016, 117, 47-56.	1.9	46
6	Strong and ductile steel via high dislocation density and heterogeneous nano/ultrafine grains. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 759, 1-10.	2.6	46
7	Study of Grain-Growth Kinetics in Delta-Ferrite and Austenite with Application to Thin-Slab Cast Direct-Rolling Microalloyed Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 2112-2120.	1.1	30
8	A Novel Approach to Model Static Recrystallization of Austenite During Hot Rolling of Nb Microalloyed Steel. Part I: Precipitate-Free Case. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 1862-1871.	1.1	30
9	Mechanical Behavior of Carbide-free Medium Carbon Bainitic Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 1352-1361.	1.1	24
10	Using architected materials to control localized shear fracture. <i>Acta Materialia</i> , 2018, 143, 298-305.	3.8	24
11	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
12	Compositionally Graded Steels: A Strategy for Materials Development. <i>Advanced Engineering Materials</i> , 2009, 11, 992-999.	1.6	19
13	Molecular Dynamics Study of Solute Pinning Effects on Grain Boundary Migration in the Aluminum Magnesium Alloy System. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 1889-1897.	1.1	19
14	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
15	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 &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 815, 141265.	2.6	14
16	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
17	Kinetics of Delta-Ferrite to Austenite Phase Transformation in a Two-Phase Fe-Al-C Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 3349-3357.	1.1	11
18	Effects of solutes and temperature on high-temperature deformation and subsequent recovery in hot-rolled low alloy steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 765, 138324.	2.6	11

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19	Influence of Microstructural Length Scale on the Strength and Annealing Behavior of Pearlite, Bainite, and Martensite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 1454-1461.	1.1	10
20	Characterization of the Isothermal Precipitation Kinetics of an Al-Zn-Mg-Cu Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 5157-5168.	1.1	10
21	NbC precipitation during multi-pass deformation of a nickel-based model alloy: Experiments and modelling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 772, 138748.	2.6	10
22	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
23	Analytical Model of the Unbending Behavior of Corrugated Reinforcements. <i>Advanced Engineering Materials</i> , 2014, 16, 872-877.	1.6	9
24	A Comparison of Ferrite Growth Kinetics under Denitriding and Decarburizing Conditions. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 2449-2454.	1.1	9
25	Effect of water vapour partial pressure on the chromia ( $Cr_2O_3$ )-based scale stability. <i>Canadian Metallurgical Quarterly</i> , 2018, 57, 89-98.	0.4	9
26	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
27	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
28	Interface Segregation and Nitrogen Measurement in Fe-Mn-N Steel by Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2017, 23, 385-395.	0.2	8
29	Effect of Solute Nb on Grain Growth in Fe-30Pct Mn Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 3674-3682.	1.1	8
30	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
31	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
32	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
33	A novel approach to producing architected ultra-high strength dual phase steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 833, 142582.	2.6	7
34	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
35	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
36	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

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37	Effect of Nb on Ferrite Recrystallization and Austenite Decomposition in Microalloyed Steels. <i>Steel Research International</i> , 2007, 78, 210-215.	1.0	5
38	Studies on softening kinetics of niobium microalloyed steel using stress relaxation technique. <i>Frontiers of Materials Science in China</i> , 2010, 4, 197-201.	0.5	5
39	Corrugation Reinforced Composites: A Method for Filling Holes in Materialâ€™Property Space. <i>Advanced Engineering Materials</i> , 2018, 20, 1700834.	1.6	5
40	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
41	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
42	Control of Upstream Austenite Grain Coarsening during the Thin-Slab Cast Direct-Rolling (TSCDR) Process. <i>Metals</i> , 2019, 9, 158.	1.0	5
43	Calculation of Initial Stage of Solidified Shell Deformation during $\gamma \rightarrow \beta$ Transformation in Mold. <i>ISIJ International</i> , 2019, 59, 2036-2043.	0.6	5
44	A Physics-Based Mean-Field Model for Ferrite Recovery and Recrystallization. <i>Metals</i> , 2020, 10, 622.	1.0	5
45	NbC precipitation during two-pass hot deformation of a nickel-based model alloy at 700 Â°C: Experiments and modelling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 802, 140447.	2.6	5
46	Model Fe-Al Steel with Exceptional Resistance to High Temperature Coarsening. Part I: Coarsening Mechanism and Particle Pinning Effects. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 178-189.	1.1	4
47	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
48	An Original Way for Producing a 2.4 GPa Strength Ductile Steel by Rolling of Martensite. <i>ISIJ International</i> , 2014, 54, 235-239.	0.6	4
49	Recrystallization and Grain Coarsening Control in Processing High Niobium Microalloyed Line Pipe Steels. <i>Materials Science Forum</i> , 2013, 753, 391-396.	0.3	3
50	Model Fe-Al Steel with Exceptional Resistance to High Temperature Coarsening. Part II: Experimental Validation and Applications. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 190-198.	1.1	2
51	Novel approach for the development of tailored heterogenous structures in steel. <i>Materialia</i> , 2020, 13, 100831.	1.3	2
52	Increasing Necking Strain through Corrugation: Identifying Composite Systems That Can Benefit from Corrugated Geometry. <i>Materials</i> , 2020, 13, 5175.	1.3	2
53	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
54	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

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55	Modeling of the dynamics of transient liquid films in ternary systems. Journal of Phase Equilibria and Diffusion, 2006, 27, 699-706.	0.5	1
56	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
57	A New Alloy System Having Autogenous Grain Pinning at High Temperature. Minerals, Metals and Materials Series, 2019, , 73-86.	0.3	0
58	Calculation of Initial Stage of Solidified Shell Deformation during $\hat{\Gamma}$ to $\hat{\Gamma}^3$ Transformation in Mold. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2021, 107, 112-120.	0.1	0
59	On the Decarburization of Surface Pearlite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 3198.	1.1	0
60	Workshop focuses on the rise in MSE undergraduates. MRS Bulletin, 2021, 46, 5-11.	1.7	0
61	Hot Deformation Behavior of an Fe-Al Steel in the Two Phase Region. , 2014, , 927-933.		0
62	Evaluating the Effect of the Competition between NbC Precipitation and Grain Size Evolution on the Hot Ductility of Nb Containing Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2020, 106, 429-437.	0.1	0