Christopher Barreett

List of Publications by Year
in descending order

19	1,210	687363 13	794594 19
papers	citations	h-index	g-index

21	21	21	825
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Unraveling Mg ã€ˆcâ€‰+â€‰aã€‰ slip using neural network potential. Philosophical Magazine, 2022, 102, 651-673.	1.6	8
2	Martensitic microstructure evolution in austenitic steel: A thermomechanical polycrystalline phase field study. Journal of Materials Research, 2021, 36, 1376-1399.	2.6	2
3	An atomistic gateway into capturing twin nucleation in crystal plasticity. Philosophical Magazine Letters, 2020, 100, 375-385.	1.2	4
4	Dislocation induced twin growth and formation of basal stacking faults in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mrow><mml:mo stretchy="true">{</mml:mo><mml:mrow><mml:mn>10</mml:mn><mml:mrow><mml:mover accent="true"><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow><mml:mn>2</mml:mn></mml:mrow><mml:mo stretchy="true">}</mml:mo></mml:mrow></mml:mrow></mml:math> twins in pure Mg. Acta	7.9	85
5	Unraveling Recrystallization Mechanisms Governing Texture Development from Rare-Earth Element Additions to Magnesium. Metallurgical and Materials Transactions A: Physical Metallurgy and	2.2	53
6	Effect of rare earth addition on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0008.gif" overflow="scroll"><mml:mrow><mml:mo stretchy="true">{</mml:mo><mml:mrow><mml:mrow><mml:mn mathvariant="bold">10</mml:mn></mml:mrow><mml:mover accent="true"><mml:mrow><mml:mn mathvariant="bold">1</mml:mn></mml:mrow><mml:mo>ì…</mml:mo></mml:mover><mml:mrow><mml:mn mathvariant="bold">2</mml:mn></mml:mrow></mml:mrow><mml:mo stretchy="true">}</mml:mo></mml:m	5.6	21
7	New interatomic potential for Mgâ€“Alâ€“Zn alloys with specific application to dilute Mg-based alloys. Modelling and Simulation in Materials Science and Engineering, 2018, 26, 045010.	2.0	40
8	The effect of rare earth element segregation on grain boundary energy and mobility in magnesium and ensuing texture weakening. Scripta Materialia, 2018, 146, 46-50.	5.2	109
9	Effect of grain boundaries on texture formation during dynamic recrystallization of magnesium alloys. Acta Materialia, 2017, 128, 270-283.	7.9	194
10	Analysis of twinning via automated atomistic post-processing methods. Philosophical Magazine, 2017, 97, 1102-1128.	1.6	7
11	Beyond initial twin nucleation in hcp metals: Micromechanical formulation for determining twin spacing during deformation. Acta Materialia, 2017, 133, 134-146.	7.9	15
12	Generalized interfacial fault energies. International Journal of Solids and Structures, 2017, 110-111, 106-112.	2.7	10
13	Nucleation and preferential growth mechanism of recrystallization texture in high purity binary magnesium-rare earth alloys. Acta Materialia, 2017, 138, 27-41.	7.9	174
14	Why are <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.gif" overflow="scroll"><mml:mrow><mml:mo stretchy="false">{</mml:mo><mml:mn>10</mml:mn><mml:mover accent="true"><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover><m stretchy="false">}</mml:mo></mml:mrow></mml:math> twins profuse in magnesium?. Acta Materialia, 2015, 85, 354-361.	7.9	187
15	The roles of grain boundary dislocations and disclinations in the nucleation of {102} twinning. Acta Materialia, 2014, 63, 1-15.	7.9	145
16	Impact of deformation faceting on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si24.gif" overflow="scroll"><mml:mrow><mml:mo stretchy="false">{</mml:mo><mml:mn>1</mml:mn><mml:mspace width="0.12em" /><mml:mn>0</mml:mn><mml:mspace width="0.12em" /><mml:mover accent="true"><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover><m width="0.12em" /><mml:mn>2</mml:mn><mml:mo stretchy="false">}</mml:mo><mml:mtext>,</mml:mtex	7.9	79
17	Fundamentals of mobile tilt grain boundary faceting. Scripta Materialia, 2014, 84-85, 15-18.	5.2	35
18	The candidacy of shuffle and shear during compound twinning in hexagonal close-packed structures. Acta Materialia, 2013, 61, 7646-7659.	7.9	39

#	Article	IF	Citations
19	Comments on â€œextended zonal dislocations mediating twinning in titaniumâ€. Philosophical Magazine, 2013, 93, 3491-3494.	1.6	3