

HOMOGENEOUS INTERFACES

Z	Element	Crystal System	(100)		(110)		(111)	
			γ (J/m ²)	τ (GPa)	γ (J/m ²)	τ (GPa)	γ (J/m ²)	τ (GPa)
3	Li	bcc	0.85	2.93	0.93	0.66	1.03	2.95
4	Be	hcp	/	/	/	/	4.01	15.01
11	Na	bcc	0.41	1.15	0.4	0.33	0.48	1.14
12	Mg	hcp	/	/	/	/	0.86	0.75
13	Al	fcc	1.84	4.0	2.13	5.22	1.52	2.06
14	Si	dia	4.57	24.03	3.26	11.13	3.33	13.35
19	K	bcc	0.21	0.63	0.21	0.16	0.26	0.55
20	Ca	fcc	0.93	2.61	1.08	1.72	0.95	0.65
21	Sc	hcp	/	/	/	/	2.58	3.82
22	Ti	hcp	/	/	/	/	3.81	4.38
23	V	bcc	4.88	23.09	4.84	8.7	5.42	20.46
24	Cr	bcc	7.07	33.1	6.35	17.46	7.01	30.73
26	Fe	bcc	4.99	26.36	4.95	11.86	5.45	24.68
27	Co	hcp	/	/	/	/	4.30	6.95
28	Ni	fcc	4.46	14.57	4.57	13.59	3.85	5.92
29	Cu	fcc	2.67	8.9	2.9	8.71	2.38	3.76
30	Zn	hcp	/	/	/	/	0.67	2.29
32	Ge	dia	2.8	14.12	2.38	7.46	2.19	9.82
37	Rb	bcc	0.17	0.4	0.15	0.12	0.19	0.43
38	Sr	fcc	0.69	1.73	0.8	1.14	0.68	0.44
39	Y	hcp	/	/	/	/	2.00	2.47
40	Zr	hcp	/	/	/	/	3.18	2.64
41	Nb	bcc	4.72	20.24	4.17	7.22	4.78	17.27
42	Mo	bcc	6.23	26.56	5.57	14.71	6.28	25.07
44	Ru	hcp	/	/	/	/	5.11	15.62
45	Rh	fcc	4.69	15.12	4.68	13.47	4.01	8.23
46	Pd	fcc	3.1	8.86	3.22	7.4	2.68	3.66
47	Ag	fcc	1.7	5.0	1.86	4.43	1.56	2.07
48	Cd	hcp	/	/	/	/	0.40	0.50
50	Sn	dia	1.75	5.85	1.26	3.61	1.22	3.81
55	Cs	bcc	0.14	0.31	0.12	0.09	0.16	0.09
56	Ba	bcc	0.62	2.06	0.62	0.71	0.81	2.23
58	Ce	hcp	1.49	3.8	1.67	2.25	1.46	1.10
63	Eu	bcc	0.87	2.02	1.0	1.53	0.90	0.43
70	Yb	fcc	0.83	2.24	0.96	1.75	0.84	0.63
72	Hf	hcp	/	/	/	/	3.44	4.96
73	Ta	bcc	5.08	22.99	4.71	7.74	5.45	30.08
74	W	bcc	7.79	34.23	6.38	17.74	6.93	27.86
75	Re	hcp	/	/	/	/	5.31	10.15
76	Os	hcp	/	/	/	/	5.84	20.85
77	Ir	fcc	5.68	18.4	5.72	18.46	4.59	11.63
78	Pt	fcc	3.7	8.61	3.88	9.13	2.99	4.13
79	Au	fcc	1.74	3.38	1.8	3.29	1.41	1.16
82	Pb	fcc	0.53	1.12	0.78	1.67	0.50	0.64

Notes:

¹The reported values of γ_{min} are measured in Jm⁻², and of τ_F^{MEP} in GPa.

²For the hexagonal crystals the considered face is the 0001.

Reference: M. Wolloch, G. Losi, M. Ferrario, M. C. Righi. High-throughput screening of the static friction and ideal cleavage strength of solid interfaces. *Sci Rep* **9**, 17062 (2019). DOI: [10.1038/s41598-019-49907-2](https://doi.org/10.1038/s41598-019-49907-2).