Supplementary Materials

Section S1. Evaluation Metrics

Due to the imbalanced characteristic of our proposed database, we use the unweighted average recall (UAR) as our main metric to evaluate the model's performance. Firstly, let us define the *recall* (aka. class-wise accuracy) of the *i*-th class as:

$$Recall_i = \frac{\bar{N}_i}{N_i}$$

where $\bar{N}_i$ and N_i are the correctly recognized instance number and the total instance number of the *i*-th class, respectively. The weighted average recall (WAR) is defined as:

$$\text{WAR} = \sum_{i=1}^{N_c} \lambda_i \, Recall_i$$

$$\lambda_i = \frac{N_i}{N}$$

where N_c and N are the number of classes in the task and the total number of instances, respectively. We know that, if the data distribution is extremely imbalanced, an ML model will usually be trained much stronger in recognizing the classes which occupy a larger percentage than the other classes in the total dataset. Therefore, using WAR (or accuracy) to evaluate the final performance for an imbalanced dataset could be overoptimistic. In contrast, the UAR is defined as:

$$\text{UAR} = \frac{\sum_{i=1}^{N_c} Recall_i}{N_c}$$

We can see that, for a balanced dataset (i.e., λ_i is a constant), WAR is equal to UAR. Considering our task is a binary classification problem, we also provide a series of complementary evaluation metrics. They are defined as:

$$\text{sensitivity} = \frac{\text{TP}}{\text{TP}+\text{FN}}$$

$$\text{specificity} = \frac{\text{TN}}{\text{TN}+\text{FP}}$$

$$\text{precision} = \frac{\text{TP}}{\text{TP}+\text{FP}}$$

$$\text{F1 score} = 2 \cdot \frac{\text{precision} \cdot \text{sensitivity}}{\text{precision}+\text{sensitivity}} = \frac{2\text{TP}}{2\text{TP} + \text{FP} + \text{FN}}$$

where TP, TN, FP, and FN are the number of *true positive* (“Good” correctly identified as “Good”), *true negative* (“Weak” correctly identified as “Weak”), *false positive* (“Weak” incorrectly identified as “Good”), and *false negative* (“Good” incorrectly identified as “Weak”), respectively.

Section S2. Hyper-parameters optimization

The hyper-parameters of all ML models are tuned and optimized on the dev set based on the performance (UAR). We use a grid-search strategy to decide on the optimal hyper-parameter for a specific ML model. All the ML models (except SVM) are implemented by the MATLAB (R2019a) *Statistics and Machine Learning Toolbox* [1], MATLAB (R2019a) *Deep Learning Toolbox* [2], and MATLAB (K)ELM Codes [3]. The SVM model is implemented by the LIBSVM Toolkit [4]. We use the default hyper-parameters designed in these tools except if claimed as follows.

Table S1 shows the grid search strategy we use for optimizing the hyper-parameters of the ML models. From Fig. S1 we can see that, optimization of the hyper-parameters is necessary for building an efficient ML model. All the hyper-parameters of the models are tuned and optimized based on their performance (UARs) on the dev set. Then, the optimal hyper-parameter will be applied to train a new model based on the combination of the train and dev sets. Finally, the test set (unseen) will be evaluated by this new model.

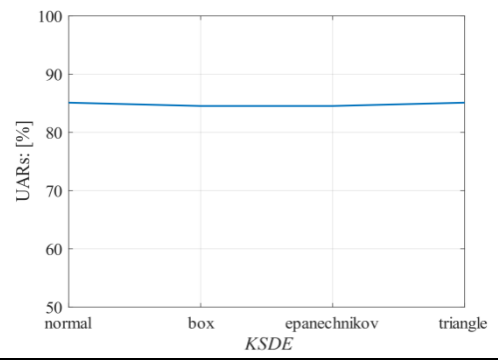
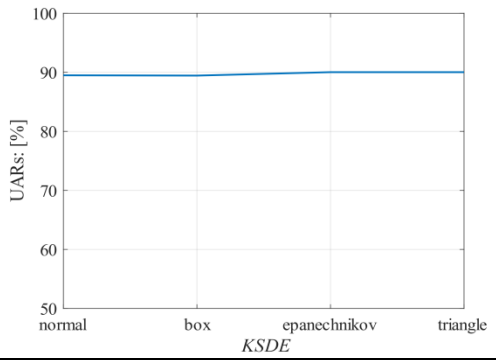
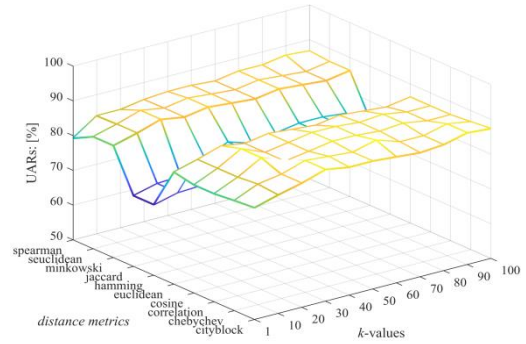
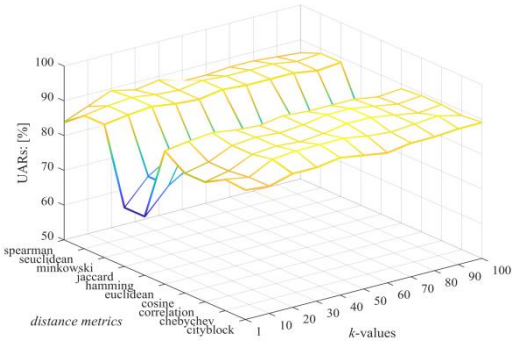
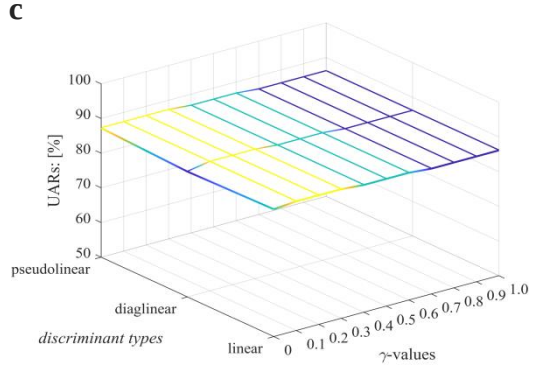
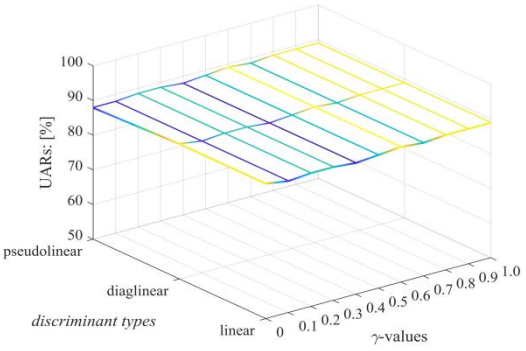
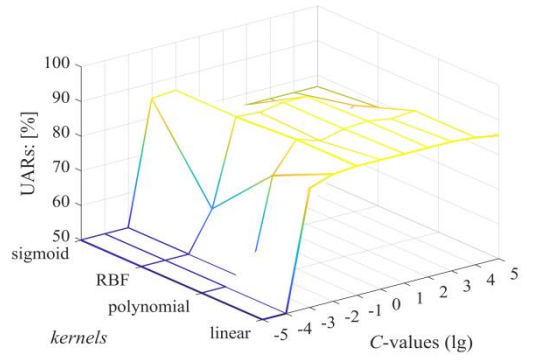
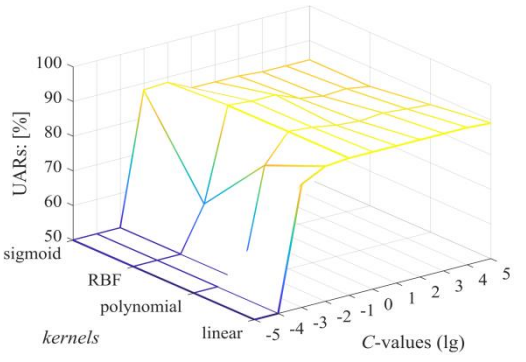
Table S2 shows the optimal hyper-parameters selected for evaluating the final ML models on the test set. When tuning the hyper-parameters by the grid search strategy, the earliest value (calculating from the start point of the grid) will be selected if there is more than one peak value (i.e., highest UAR) achieved in the whole grid.

[1] MATLAB (R2019a): Statistics and Machine Learning Toolbox, MathWorks, Inc., Natick, MA, USA.

[2] MATLAB (R2019a): Deep Learning Toolbox, MathWorks, Inc., Natick, MA, USA.

[3] MATLAB (K)ELM Codes: Basic ELM Algorithms (MATLAB Version), Nanyang Technological University, Singapore.

[4] C.-C. Chang and C.-J. Lin, “LIBSVM: A library for support vector machines”, *ACM Transactions on Intelligent Systems and Technology*, vol. 2, pp. 27:1-27:27, 2011,
software available at https://www.csie.ntu.edu.tw/~cjlin/libsvm/.

Yield stress (Y_S)	Young's modulus (E)
a 	
b 	
c 	
d 	

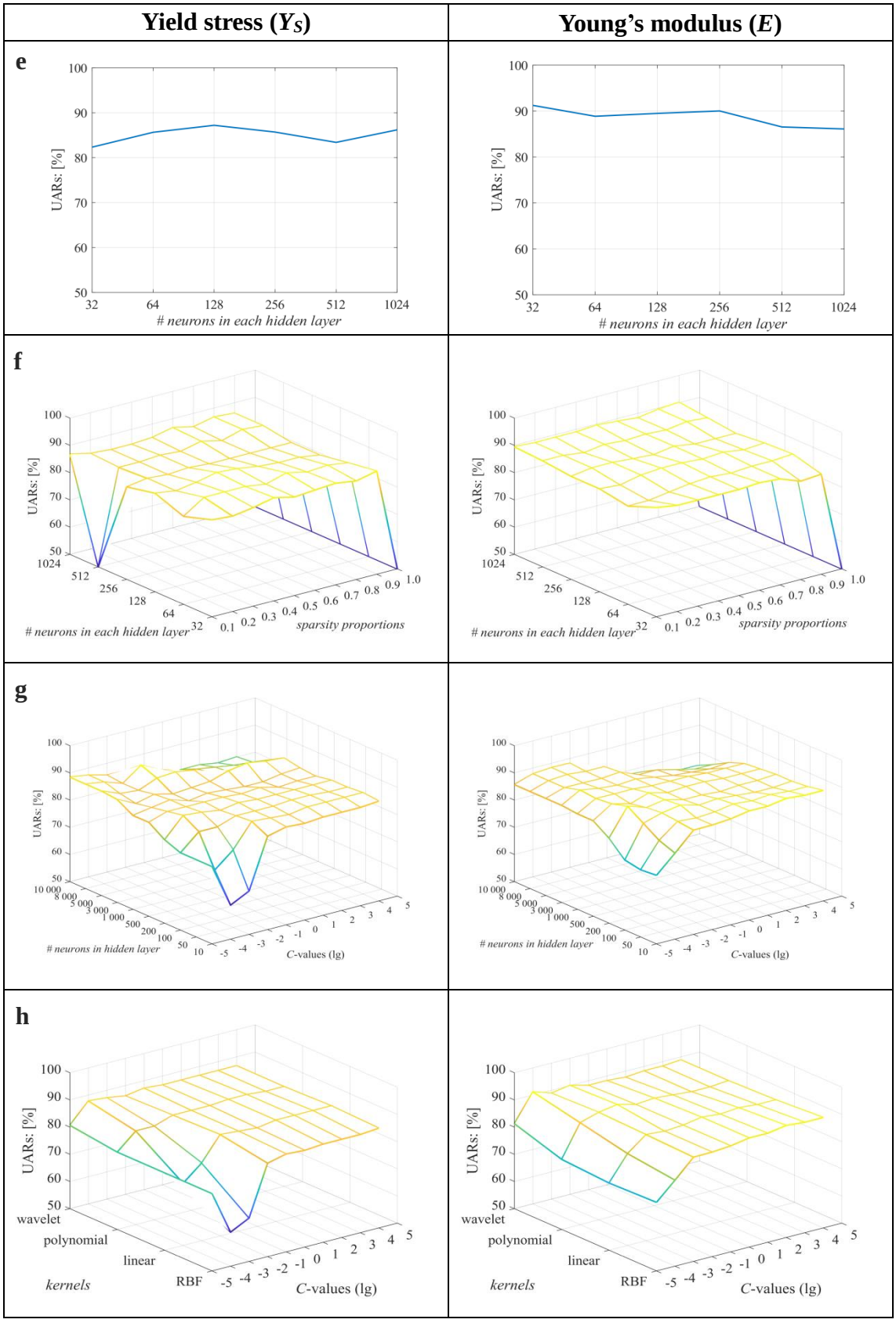


Fig. S1. The hyper-parameters tuning process for yield stress and the Young's modulus by different ML models. (a) NB model, (b) *k*-NN model, (c) LDA model, (d) SVM model, (e) DNN model, (f) SAE model, (g) ELM model, and (h) KELM model.

Table S1. Grid search for optimizing the hyper-Parameters of the ML models.

ML Models	Hyper-Parameters
NB	*kernel smoothing density estimate (KSDE)*: {"normal", "box", "epanechnikov", "triangle"}.
***k*-NN**	*k*-values: {1, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100}; *distance metric*: {"cityblock", "chebychev", "correlation", "cosine", "euclidean", "hamming", "jaccard", "minkowski", "seuclidean", "spearman"}.
LDA	*discriminant types*: {"linear", "diaglinear", "pseudolinear"}; γ-values: {0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0}.
SVM	*kernel types*: {"linear", "polynomial", "RBF", "sigmoid"}; *C-values*: {10^{-5}, 10^{-4}, 10^{-3}, 10^{-2}, 10^{-1}, 10^{0}, 10^{1}, 10^{2}, 10^{3}, 10^{4}, 10^{5}}.
DNN	*4 hidden layers*: {[32-32-32-32], [64-64-64-64], [128-128-128-128], [256-256-256-256], [512-512-512-512], [1024-1024-1024-1024]}
SAE	*2 hidden layers* (# neurons): {[32-32], [64-64], [128-128], [256-256], [512-512], [1024-1024]}; *sparsity proportions*: {0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0}; *L2 weight regularisation*: 0.0001; *sparsity regularisation*: 2.
ELM	*activation function*: "sigmoid"; *hidden layer sizes* (# neurons): {10, 50, 100, 200, 500, 1 000, 3 000, 5 000, 8 000, 10 000}; *C-values*: same as in SVM.
KELM	*kernel types*: {"linear", "polynomial", "RBF", "wavelet"}; *C-values*: same as in SVM; *kernel parameters*: [1, 10, 100].

Table S2. The optimal hyper-parameters selected for evaluating the ML models on the test set.

ML Models		***Ys***	***E***
NB	*KSDE*	"normal"	"epanechnikov"
***k*-NN**	*k*-value	60	50
	distance metric	"chebychev"	"chebychev"
LDA	*discriminant type*	"pseudolinear"	"linear"
	γ-value	0	0.6
SVM	*kernel type*	"polynomial"	"linear"
	C-value	0.1	0.1
DNN	*# neurons in each hidden layer*	128	32
SAE	*sparsity proportion*	0.6	0.9
	# neurons in each hidden layer	64	1024
ELM	*# neurons in hidden layer*	200	50
	C-value	1 000	0.01
KELM	*kernel type*	"linear"	"RBF"
	C-value	0.00001	0.1

Supplementary Database

[100]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
a	20	20	20	20	20	118.71	18.26
1	34	11	13	30	12	112.17	16.22
2	11	15	10	35	29	111.81	14.29
3	16	23	21	19	21	120.56	18.54
4	30	18	9	14	29	102.63	15.80
5	15	31	14	8	32	107.59	18.00
6	29	17	21	17	16	115.88	17.08
7	27	19	34	8	12	126.57	17.75
8	26	23	26	17	8	118.96	18.37
9	8	30	33	15	14	132.16	20.56
10	32	8	29	9	22	123.27	16.19
11	17	7	18	34	24	121.93	14.64
12	17	25	24	5	29	120.92	18.00
13	29	30	13	6	22	96.72	17.12
14	20	29	20	26	5	115.60	19.74
15	32	19	7	32	10	100.39	16.84
16	27	26	17	24	6	110.00	18.40
17	10	26	14	15	35	112.59	16.11
18	23	34	19	5	19	105.97	18.13
19	31	18	9	22	20	104.87	16.30
20	23	17	21	21	18	116.30	17.87
21	23	17	22	32	6	121.26	18.69
22	24	32	9	22	13	97.98	18.32
23	20	23	16	34	7	113.04	19.08
24	22	8	10	31	29	111.96	14.32
25	10	33	22	6	29	116.82	18.87
26	18	20	6	23	33	108.35	16.16
27	27	8	20	14	31	120.51	15.46
28	15	23	14	27	21	112.53	18.39
29	32	9	6	34	19	104.29	16.03
30	14	20	9	35	22	110.74	17.30
31	24	17	21	28	10	117.61	18.33
32	27	30	8	20	15	96.28	17.60
33	20	31	6	17	26	96.59	18.10
34	11	25	18	14	32	115.96	16.90
35	15	9	19	30	27	122.94	14.57
36	13	19	35	13	20	132.02	18.59
37	12	29	20	15	24	118.55	18.65
38	16	21	23	23	17	123.19	18.74
39	8	23	29	20	20	132.70	18.27
40	9	30	13	22	26	112.99	18.02
41	10	21	17	30	22	120.91	17.10
42	27	7	21	26	19	119.23	16.86
43	15	6	25	25	29	128.78	14.25
44	26	7	32	25	10	131.66	17.77
45	26	10	15	21	28	114.75	16.14
46	22	19	7	23	29	105.23	16.92
47	11	26	22	12	29	119.27	17.64
48	20	20	22	15	23	120.16	18.09
49	26	33	21	9	11	103.64	18.27
50	15	8	26	25	26	127.70	14.83
51	21	18	6	22	33	99.57	16.07
52	34	32	6	6	22	86.66	16.11

53	31	20	15	28	6	108.22	17.21
54	13	15	9	35	28	113.21	14.65
55	11	32	34	14	9	131.64	21.20
56	24	18	33	18	7	130.21	18.51
57	24	23	14	13	26	106.32	17.08
58	7	21	27	21	24	129.38	16.80
59	15	8	33	20	24	133.35	15.75
60	9	21	35	22	13	135.53	19.27
61	11	33	10	31	15	109.20	19.74
62	13	12	15	34	26	118.36	14.63
63	5	14	24	32	25	128.93	14.44
64	32	9	33	5	21	124.23	16.32
65	28	19	5	30	18	105.64	16.63
66	21	16	25	18	20	122.44	17.96
67	27	9	25	19	20	123.08	16.78
68	34	23	31	7	5	117.88	16.85
69	23	8	21	18	30	121.52	15.07
70	15	25	15	35	10	113.59	19.51
71	5	32	26	18	19	130.34	19.77
72	29	21	23	10	17	112.06	17.01
73	10	24	26	19	21	124.24	18.69
74	7	31	19	11	32	116.99	17.46
75	23	33	14	9	21	102.80	18.15
76	13	8	25	34	20	127.19	15.16
77	19	27	29	9	16	124.51	19.65
78	10	10	20	29	31	125.64	13.91
79	24	22	28	21	5	119.67	18.56
80	25	15	19	25	16	115.02	17.72
81	10	7	24	29	30	128.48	13.97
82	6	29	26	24	15	130.62	19.65
83	20	32	15	11	22	104.80	18.75
84	12	8	29	18	33	127.46	14.18
85	13	34	5	14	34	98.27	17.62
86	23	22	18	31	6	110.90	18.26
87	28	19	22	22	9	117.33	17.65
88	11	22	15	29	23	119.07	17.31
89	19	6	30	22	23	128.73	15.64
90	9	5	35	29	22	135.97	14.80
91	23	19	20	27	11	120.43	18.26
92	10	17	27	26	20	127.50	17.08
93	19	15	26	8	32	125.81	16.35
94	26	35	11	8	20	94.17	17.06
95	22	29	7	27	15	103.66	18.20
96	14	11	19	22	34	119.83	14.01
97	13	27	13	14	33	112.34	17.11
98	21	12	30	22	15	127.17	18.20
99	22	32	23	9	14	112.59	19.06
100	12	26	18	27	17	118.22	19.11

[110]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
b	20	20	20	20	20	192.27	7.66
101	34	19	25	13	9	182.70	8.22
102	29	8	22	22	19	196.19	7.17
103	22	15	10	32	21	184.72	7.02
104	10	25	23	26	16	198.62	8.19
105	6	6	33	30	25	218.43	7.37
106	5	29	9	30	27	186.62	7.24
107	27	16	26	24	7	191.38	8.38
108	20	26	8	12	34	171.70	6.38
109	28	21	11	5	35	174.70	6.14
110	34	23	9	21	13	165.45	7.62
111	12	30	19	16	23	191.06	7.58
112	33	9	7	30	21	179.96	6.56
113	31	28	8	28	5	161.07	8.63
114	30	18	22	20	10	184.91	8.16
115	20	33	6	15	26	162.03	7.16
116	30	19	19	8	24	182.67	6.96
117	18	7	35	29	11	213.12	8.19
118	22	28	15	23	12	186.04	8.17
119	31	35	12	15	7	159.90	8.81
120	22	21	18	21	18	183.07	7.66
121	8	35	8	35	14	186.44	8.42
122	24	19	20	15	22	186.31	7.34
123	21	6	11	30	32	191.18	6.16
124	16	16	28	7	33	208.21	7.00
125	19	11	30	33	7	207.51	8.49
126	16	6	15	34	29	198.56	6.51
127	18	19	8	24	31	185.36	6.50
128	22	35	12	19	12	170.84	8.64
129	6	11	35	22	26	218.41	7.56
130	22	24	35	9	10	199.52	8.89
131	20	33	32	10	5	190.75	9.78
132	21	33	10	31	5	169.07	9.15
133	24	23	6	25	22	172.28	7.12
134	7	32	20	14	27	192.48	7.54
135	21	18	27	23	11	199.50	8.37
136	19	16	25	6	34	196.96	6.73
137	26	18	7	26	23	175.49	6.88
138	34	5	20	27	14	193.83	7.21
139	14	19	21	16	30	201.47	7.06
140	11	26	23	18	22	199.07	7.86
141	33	27	12	15	13	165.03	7.89
142	16	18	22	17	27	196.42	7.29
143	18	18	27	26	11	205.11	8.37
144	13	19	27	12	29	206.28	7.31
145	6	34	30	11	19	209.60	8.69
146	17	23	30	11	19	200.24	8.13
147	21	8	30	7	34	206.47	6.76
148	16	17	21	22	24	195.15	7.33
149	30	11	18	31	10	184.04	7.80
150	9	10	28	24	29	211.37	7.08
151	31	8	10	32	19	183.52	6.85
152	20	29	7	33	11	177.10	8.37

153	26	9	9	22	34	185.12	6.00
154	27	28	6	10	29	167.27	6.62
155	17	30	13	23	17	176.74	7.94
156	16	24	31	20	9	200.49	8.98
157	9	22	24	26	19	199.35	7.89
158	32	25	10	19	14	162.35	7.64
159	28	14	13	32	13	183.15	7.57
160	12	22	11	32	23	191.49	7.28
161	24	25	32	8	11	191.89	8.80
162	32	23	8	12	25	167.09	6.68
163	14	24	23	26	13	197.04	8.40
164	6	12	27	32	23	214.25	7.45
165	28	8	27	21	16	201.82	7.47
166	18	15	28	29	10	204.55	8.24
167	28	9	20	14	29	196.45	6.60
168	24	28	10	28	10	169.06	8.31
169	14	20	19	20	27	199.53	7.23
170	31	31	6	22	10	157.90	8.29
171	21	13	34	21	11	206.51	8.42
172	26	25	5	27	17	173.19	7.45
173	15	8	27	32	18	211.37	7.54
174	26	12	20	26	16	191.86	7.46
175	30	7	20	27	16	188.31	7.33
176	30	23	5	24	18	164.44	7.27
177	33	12	17	17	21	186.66	6.90
178	12	14	23	28	23	202.21	7.42
179	30	33	18	11	8	164.87	8.76
180	11	12	11	34	32	196.84	6.41
181	27	10	22	22	19	193.40	7.28
182	12	33	18	26	11	194.15	8.86
183	19	33	18	9	21	180.00	8.00
184	21	19	24	30	6	195.05	8.73
185	23	25	23	24	5	191.24	9.02
186	12	22	18	23	25	196.89	7.33
187	28	18	20	22	12	189.09	7.98
188	22	28	31	5	14	190.74	8.67
189	13	17	27	18	25	207.04	7.53
190	22	22	5	35	16	177.39	7.44
191	35	24	22	12	7	172.87	8.49
192	12	19	20	22	27	205.19	7.19
193	23	24	15	28	10	186.74	8.28
194	28	34	13	14	11	163.50	8.51
195	12	31	16	31	10	192.28	8.77
196	16	28	22	24	10	196.38	8.80
197	11	35	24	15	15	198.47	8.74
198	24	6	17	35	18	192.60	7.14
199	7	35	6	27	25	183.47	7.49
200	10	23	30	5	32	211.70	7.39

[111]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
c	20	20	20	20	20	268.96	15.14
201	22	8	11	25	34	284.20	13.96
202	17	12	20	29	22	285.10	15.38
203	17	27	14	25	17	262.93	15.48
204	16	28	7	26	23	266.97	14.79
205	29	14	9	18	30	258.05	12.89
206	8	22	28	14	28	295.12	16.73
207	12	33	17	5	33	279.52	15.80
208	7	28	31	14	20	292.86	17.89
209	6	19	35	33	7	296.66	18.25
210	5	33	7	29	26	276.55	16.31
211	22	19	14	26	19	266.10	14.71
212	28	20	12	12	28	259.46	13.36
213	11	21	28	13	27	292.86	16.46
214	9	28	18	14	31	283.22	15.95
215	31	17	33	9	10	257.15	14.87
216	27	15	27	16	15	264.29	14.90
217	29	10	28	27	6	266.86	15.22
218	15	25	5	31	24	265.63	15.06
219	11	35	23	23	8	267.83	17.84
220	24	28	19	21	8	253.57	15.68
221	8	29	8	21	34	283.09	15.71
222	33	11	35	9	12	262.56	14.69
223	11	21	21	30	17	282.13	16.59
224	15	33	7	12	33	267.48	14.78
225	24	35	10	15	16	244.43	15.11
226	20	31	5	19	25	252.12	14.15
227	13	27	22	25	13	276.23	16.97
228	6	25	6	34	29	285.67	15.83
229	10	25	7	25	33	278.99	15.37
230	32	10	20	17	21	262.44	13.57
231	30	29	24	6	11	247.82	15.24
232	20	27	6	22	25	258.87	14.23
233	19	13	20	32	16	279.34	15.41
234	18	8	28	31	15	288.17	15.74
235	5	31	13	27	24	284.80	17.05
236	21	17	28	29	5	269.12	16.02
237	33	12	6	23	26	259.51	12.65
238	27	30	26	7	10	250.64	15.59
239	17	31	7	32	13	250.75	15.39
240	35	16	11	10	28	256.75	12.11
241	19	8	15	33	25	282.74	14.79
242	16	23	30	9	22	278.89	16.26
243	9	15	25	27	24	302.05	16.66
244	19	6	11	35	29	286.97	14.46
245	33	22	9	17	19	239.67	13.45
246	11	20	10	29	30	281.90	15.33
247	16	22	30	21	11	279.93	16.72
248	31	14	7	30	18	252.36	13.42
249	15	25	28	9	23	279.07	15.98
250	6	28	20	24	22	287.78	16.89
251	26	23	23	8	20	259.57	14.55
252	10	17	35	16	22	296.94	17.28

253	19	5	16	26	34	296.23	14.23
254	15	32	21	9	23	267.19	15.84
255	27	34	18	14	7	240.58	15.68
256	13	24	12	29	22	271.99	15.41
257	35	33	9	7	16	224.41	13.50
258	31	8	20	35	6	260.01	14.48
259	17	23	19	30	11	271.22	16.13
260	14	26	34	11	15	279.99	17.29
261	33	35	15	6	11	230.12	14.37
262	12	29	12	28	19	269.91	15.84
263	19	13	9	33	26	277.10	14.47
264	14	31	13	34	8	259.52	16.64
265	15	10	28	34	13	286.44	16.24
266	29	20	11	10	30	257.90	13.33
267	24	11	10	23	32	276.58	13.17
268	13	12	32	10	33	303.84	16.11
269	7	24	30	16	23	299.41	17.50
270	23	26	21	23	7	253.93	15.72
271	33	6	12	30	19	264.35	13.37
272	16	33	30	11	10	264.34	16.99
273	9	9	31	31	20	303.97	17.07
274	8	23	30	13	26	299.65	17.16
275	19	19	11	20	31	274.52	14.12
276	15	27	20	20	18	269.54	16.23
277	29	9	6	23	33	263.43	12.91
278	13	34	5	24	24	261.03	15.44
279	14	30	17	19	20	270.49	15.68
280	14	28	30	7	21	277.47	16.55
281	23	26	12	34	5	253.94	15.18
282	31	16	13	17	23	255.31	12.94
283	11	31	29	23	6	275.00	18.03
284	8	22	28	12	30	296.52	16.74
285	17	19	30	15	19	280.90	16.35
286	20	11	28	17	24	286.09	14.65
287	34	15	13	28	10	249.88	13.78
288	7	14	35	31	13	300.98	17.59
289	32	16	23	7	22	261.06	13.68
290	15	24	23	18	20	278.78	16.26
291	8	29	14	29	20	276.48	16.74
292	13	28	10	26	23	269.62	15.69
293	22	33	27	12	6	253.06	16.94
294	26	10	27	20	17	273.34	14.61
295	9	33	5	23	30	274.90	15.46
296	21	15	23	6	35	286.50	14.43
297	28	8	28	18	18	271.34	14.58
298	22	23	18	16	21	268.91	14.70
299	27	18	22	27	6	257.24	14.80
300	5	29	27	6	33	301.27	17.52

[210]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
d	20	20	20	20	20	169.07	7.99
301	24	20	15	10	31	160.63	7.01
302	30	6	22	13	29	171.77	6.76
303	30	28	12	5	25	143.67	7.48
304	29	16	7	15	33	157.90	6.24
305	8	16	29	26	21	191.52	8.20
306	28	23	25	16	8	167.96	9.12
307	9	14	24	20	33	184.37	7.17
308	19	23	19	19	20	169.67	8.12
309	18	31	20	14	17	165.21	8.82
310	33	19	24	6	18	160.77	7.90
311	26	20	22	10	22	169.46	7.84
312	15	13	32	35	5	192.47	9.17
313	16	33	8	24	19	154.84	8.29
314	30	6	10	23	31	165.67	6.33
315	12	15	27	14	32	183.01	7.41
316	33	21	12	17	17	151.34	7.87
317	24	7	34	25	10	184.51	8.42
318	23	9	30	12	26	182.06	7.46
319	14	15	27	22	22	187.00	7.94
320	24	25	14	5	32	158.54	7.07
321	18	22	13	24	23	165.35	7.58
322	5	18	20	35	22	187.03	7.93
323	11	16	31	11	31	186.51	7.58
324	22	31	15	24	8	153.02	9.29
325	9	20	25	32	14	182.29	8.72
326	23	16	5	25	31	159.19	6.49
327	11	21	34	12	22	190.34	8.58
328	19	20	29	6	26	178.30	7.83
329	19	31	32	13	5	174.90	10.16
330	16	30	24	24	6	170.33	9.89
331	17	14	30	21	18	187.30	8.36
332	10	17	32	27	14	192.53	8.87
333	13	35	9	34	9	159.79	9.40
334	17	15	10	30	28	170.41	6.94
335	24	19	27	14	16	173.52	8.43
336	22	32	13	8	25	156.84	7.90
337	23	9	23	34	11	177.39	8.37
338	5	25	7	29	34	170.49	6.97
339	30	14	17	27	12	166.89	8.17
340	25	31	20	18	6	158.40	9.50
341	10	23	19	32	16	176.38	8.52
342	33	11	18	13	25	164.59	6.96
343	9	13	33	29	16	191.81	8.64
344	28	24	15	21	12	158.22	8.41
345	7	31	19	8	35	173.82	7.46
346	31	23	7	6	33	145.62	6.30
347	28	27	11	5	29	151.84	7.18
348	8	22	10	27	33	172.22	6.96
349	21	6	23	27	23	180.58	7.41

350	7	25	6	33	29	170.21	7.20
351	29	20	24	5	22	166.05	7.55
352	6	30	6	35	23	167.12	7.85
353	29	5	27	29	10	180.00	8.12
354	34	15	28	13	10	169.03	8.37
355	35	31	5	13	16	140.18	8.07
356	20	19	17	33	11	171.19	8.42
357	24	5	32	22	17	185.30	7.95
358	17	15	24	14	30	180.45	7.17
359	23	5	29	16	27	182.23	7.36
360	23	24	6	25	22	154.38	7.42
361	6	30	30	22	12	188.17	9.65
362	15	15	21	25	24	180.53	7.62
363	7	16	23	19	35	183.36	7.13
364	17	15	22	28	18	178.74	8.07
365	33	8	9	31	19	160.49	6.93
366	11	27	24	26	12	180.11	9.26
367	34	8	18	11	29	167.17	6.70
368	13	18	6	32	31	168.27	6.75
369	19	34	16	24	7	162.12	9.77
370	13	11	24	23	29	183.36	7.24
371	13	26	8	22	31	165.43	7.18
372	16	14	5	33	32	167.14	6.54
373	20	31	25	17	7	168.91	9.86
374	19	26	25	14	16	171.70	8.89
375	21	30	14	29	6	159.28	9.50
376	5	24	16	32	23	181.01	7.95
377	10	13	28	24	25	191.67	7.78
378	21	33	30	7	9	169.88	9.87
379	27	24	26	7	16	166.55	8.46
380	6	6	35	32	21	199.28	8.02
381	13	31	20	14	22	169.90	8.44
382	15	29	15	27	14	166.53	8.92
383	7	18	28	28	19	191.75	8.34
384	13	22	5	33	27	167.37	7.07
385	13	17	7	29	34	172.15	6.52
386	21	34	7	5	33	148.82	7.08
387	11	30	15	14	30	169.48	7.53
388	18	33	12	19	18	153.27	8.55
389	28	14	14	13	31	161.46	6.68
390	16	21	25	17	21	181.82	8.18
391	10	32	26	17	15	178.79	9.36
392	11	23	24	31	11	179.19	9.09
393	19	19	18	13	31	171.86	6.94
394	22	19	7	17	35	161.78	6.46
395	30	19	12	5	34	154.77	6.43
396	13	28	32	22	5	183.64	9.95
397	10	29	7	34	20	164.94	7.95
398	17	31	17	23	12	163.32	9.02
399	10	35	9	29	17	161.67	8.66
400	11	34	19	21	15	170.94	9.16

[211]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
e	20	20	20	20	20	229.89	12.65
401	33	12	14	32	9	218.46	11.84
402	24	22	12	12	30	221.86	11.39
403	26	22	5	31	16	214.10	11.98
404	23	25	25	10	17	226.87	12.87
405	30	28	15	18	9	204.96	12.28
406	8	15	25	17	35	260.61	13.24
407	20	10	8	31	31	230.04	11.48
408	22	16	12	15	35	227.02	11.34
409	35	33	12	8	12	191.41	12.10
410	15	23	5	25	32	229.77	11.95
411	26	8	17	21	28	235.06	11.40
412	33	14	11	35	7	215.04	11.64
413	21	19	13	30	17	232.35	12.21
414	31	20	11	21	17	212.68	11.56
415	28	7	24	23	18	235.74	11.86
416	34	7	20	28	11	221.92	11.75
417	28	9	12	34	17	227.74	11.94
418	11	30	25	23	11	238.92	14.24
419	5	12	29	25	29	266.74	13.55
420	27	30	13	18	12	203.52	12.54
421	19	31	27	6	17	228.59	13.30
422	6	33	8	27	26	236.46	12.88
423	26	23	12	6	33	221.34	10.55
424	21	26	16	19	18	222.87	12.47
425	16	28	30	11	15	235.74	13.83
426	21	25	29	15	10	230.37	13.64
427	14	29	23	6	28	238.46	12.96
428	18	21	31	12	18	237.16	13.21
429	21	15	24	13	27	235.87	12.08
430	7	32	9	22	30	238.33	12.61
431	21	29	28	16	6	223.28	13.52
432	26	15	15	24	20	226.81	11.71
433	12	22	32	22	12	246.98	14.63
434	21	22	26	11	20	233.35	12.76
435	6	12	28	23	31	263.87	13.89
436	15	11	32	31	11	247.87	13.94
437	5	25	15	20	35	248.60	13.06
438	13	26	12	23	26	231.56	12.85
439	5	32	25	12	26	244.59	13.96
440	17	11	17	33	22	246.90	12.67
441	15	23	15	34	13	230.27	13.50
442	34	24	24	8	10	208.77	11.84
443	13	23	26	6	32	249.34	12.70
444	8	34	17	8	33	238.03	13.18
445	19	32	17	22	10	222.67	13.41
446	34	19	21	18	8	214.33	12.28
447	31	19	19	6	25	216.31	11.31
448	13	16	35	30	6	248.90	14.67
449	19	25	26	15	15	231.33	13.48

450	9	34	11	20	26	228.85	13.08
451	6	34	30	14	16	244.40	14.86
452	24	26	9	32	9	213.15	12.36
453	16	23	5	32	24	224.15	12.14
454	32	11	20	29	8	219.89	11.97
455	22	21	24	23	10	228.51	13.24
456	32	21	5	26	16	206.80	11.17
457	19	34	7	16	24	211.85	12.24
458	15	18	22	12	33	243.64	12.43
459	31	33	5	16	15	196.37	11.68
460	20	25	33	16	6	228.16	13.86
461	34	34	14	10	8	194.10	12.51
462	22	35	11	25	7	206.12	13.39
463	9	8	19	30	34	264.28	12.68
464	29	25	9	10	27	210.69	10.81
465	23	14	10	27	26	225.33	11.71
466	19	13	33	24	11	244.62	13.57
467	31	30	7	13	19	201.49	11.42
468	7	27	33	19	14	249.02	15.12
469	9	17	26	16	32	260.78	13.34
470	11	17	25	13	34	256.52	12.81
471	19	7	22	31	21	244.58	12.68
472	24	25	14	14	23	216.86	11.91
473	17	21	13	34	15	230.34	13.11
474	26	15	31	7	21	234.00	12.22
475	19	9	24	14	34	250.22	11.45
476	11	34	10	20	25	224.86	12.74
477	24	18	13	32	13	225.30	12.33
478	23	25	11	16	25	226.64	11.38
479	28	29	18	19	6	207.42	13.04
480	21	17	12	28	22	229.48	12.10
481	29	17	28	20	6	223.84	12.84
482	13	19	27	20	21	249.35	13.46
483	10	17	34	27	12	258.50	14.62
484	17	18	28	29	8	239.23	13.87
485	12	7	25	31	25	257.97	13.13
486	14	18	30	8	30	250.72	13.06
487	27	13	25	11	24	230.39	11.73
488	11	33	5	19	32	225.59	12.14
489	24	18	14	19	25	231.18	11.54
490	16	5	13	32	34	252.54	12.03
491	18	27	5	25	25	222.74	11.81
492	17	13	34	12	24	253.15	12.80
493	33	18	24	11	14	219.33	11.98
494	5	32	31	13	19	247.47	14.69
495	22	26	23	18	11	227.38	13.18
496	12	11	30	35	12	256.04	14.03
497	16	24	25	11	24	238.47	13.09
498	23	27	9	21	20	215.61	11.87
499	7	17	31	14	31	258.83	13.81
500	26	35	12	18	9	203.33	12.92

[221]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
f	20	20	20	20	20	242.83	11.92
501	28	19	18	8	27	233.76	10.84
502	29	20	8	18	25	220.45	10.42
503	22	8	12	35	23	245.26	11.40
504	11	35	35	13	6	244.83	14.80
505	33	21	6	12	28	217.82	10.30
506	19	34	11	12	24	229.07	11.94
507	16	22	33	10	19	255.34	12.85
508	26	25	22	21	6	222.03	12.68
509	32	15	21	27	5	227.47	12.03
510	32	20	5	9	34	219.49	9.59
511	31	8	9	19	33	236.74	10.04
512	24	28	10	8	30	230.99	10.52
513	23	8	32	27	10	255.48	12.67
514	16	15	9	34	26	246.87	11.61
515	17	27	15	30	11	233.62	12.76
516	26	17	9	34	14	229.07	11.26
517	23	28	25	8	16	234.74	12.54
518	8	27	20	16	29	260.78	12.69
519	19	5	21	21	34	260.53	11.44
520	11	31	27	18	13	250.00	13.86
521	20	7	20	33	20	258.40	11.97
522	30	15	26	22	7	232.62	12.29
523	20	22	18	9	31	244.55	11.30
524	31	11	16	18	24	232.62	10.74
525	13	28	23	20	16	249.89	13.19
526	16	21	18	34	11	247.22	12.93
527	26	21	28	8	17	241.90	11.90
528	18	25	26	12	19	248.50	12.50
529	24	9	16	23	28	248.80	10.95
530	18	27	18	11	26	241.74	11.98
531	18	25	10	13	34	239.15	10.86
532	35	33	20	6	6	204.95	12.40
533	10	13	17	33	27	263.51	12.01
534	26	10	27	17	20	244.89	11.60
535	5	33	17	25	20	250.99	13.29
536	28	28	21	6	17	224.15	11.43
537	11	9	35	20	25	278.62	12.59
538	25	32	23	11	9	213.97	12.86
539	18	12	28	22	20	256.74	12.06
540	19	25	21	11	24	241.16	12.20
541	35	11	17	24	13	227.07	11.02
542	28	13	24	20	15	241.47	11.59
543	30	18	14	24	14	226.68	11.68
544	18	7	8	33	34	252.55	10.92
545	25	12	23	28	12	242.03	11.99
546	13	18	5	33	31	247.98	11.39
547	13	21	16	21	29	251.97	11.62
548	19	26	8	29	18	230.02	11.70
549	29	19	6	32	14	221.58	11.32

550	9	32	13	19	27	243.77	12.59
551	25	27	24	17	7	227.82	12.86
552	18	21	24	21	16	247.56	12.42
553	10	32	11	21	26	245.61	12.14
554	32	27	10	17	14	212.88	11.26
555	11	34	25	21	9	243.92	13.73
556	35	14	22	5	24	231.94	10.62
557	21	29	20	8	22	232.84	12.14
558	17	35	24	18	6	231.36	13.83
559	29	15	34	17	5	240.78	12.60
560	6	5	31	26	32	283.45	12.97
561	15	19	22	30	14	248.74	12.81
562	25	20	16	26	13	233.04	11.75
563	23	11	35	17	14	251.43	12.53
564	32	15	19	21	13	231.69	11.50
565	30	20	18	8	24	228.58	10.70
566	17	14	17	25	27	254.46	11.78
567	8	29	11	35	17	247.46	12.79
568	6	35	7	21	31	245.25	12.57
569	33	20	14	21	12	220.35	11.25
570	18	33	16	20	13	229.53	12.48
571	34	5	24	28	9	235.89	11.62
572	28	9	24	8	31	245.99	10.92
573	10	35	16	8	31	241.57	12.37
574	24	11	28	26	11	244.88	12.49
575	35	29	16	15	5	207.66	12.08
576	29	30	25	5	11	219.02	12.44
577	10	10	22	23	35	273.78	12.02
578	34	17	15	7	27	228.02	10.34
579	6	11	35	24	24	277.37	13.64
580	16	13	33	8	30	266.94	12.19
581	15	18	25	28	14	253.11	12.95
582	24	20	28	20	8	240.14	12.74
583	22	13	33	25	7	248.35	13.11
584	25	30	7	11	27	220.26	10.60
585	15	24	27	26	8	246.13	13.80
586	30	19	14	13	24	228.22	10.63
587	20	34	30	11	5	231.47	14.04
588	25	8	11	27	29	240.49	10.95
589	20	21	20	24	15	238.82	12.46
590	29	18	20	11	22	232.78	11.14
591	30	16	19	9	26	235.49	10.54
592	24	6	15	30	25	245.69	11.15
593	33	10	17	11	29	236.68	10.13
594	34	31	5	21	9	199.60	11.61
595	7	27	7	26	33	250.06	11.71
596	5	29	13	19	34	255.99	12.25
597	8	17	32	12	31	275.89	12.64
598	21	7	7	32	33	247.50	10.72
599	28	26	6	25	15	214.96	11.30
600	32	6	27	18	17	245.05	11.32

[321]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
g	20	20	20	20	20	232.46	11.50
601	16	11	32	6	35	254.67	11.58
602	21	7	22	34	16	243.27	11.35
603	6	26	12	25	31	245.33	11.92
604	17	11	11	34	27	243.58	11.23
605	30	9	9	26	26	225.32	10.15
606	22	20	19	21	18	226.09	11.56
607	20	26	10	16	28	225.24	10.68
608	9	24	27	17	23	251.65	12.70
609	6	7	32	22	33	271.77	12.31
610	18	32	8	13	29	216.43	10.66
611	28	19	7	16	30	216.82	9.94
612	5	18	22	21	34	260.70	11.71
613	35	14	23	21	7	219.06	11.12
614	13	22	13	20	32	242.71	10.91
615	23	15	8	29	25	224.32	10.62
616	9	18	23	29	21	253.17	12.67
617	22	22	8	31	17	217.95	11.13
618	31	15	30	15	9	232.25	11.72
619	5	32	6	31	26	234.48	11.59
620	8	34	11	13	34	233.08	11.68
621	19	29	13	19	20	222.10	11.87
622	20	31	19	23	7	217.44	12.97
623	24	15	24	16	21	232.00	11.63
624	13	26	13	16	32	231.07	11.21
625	7	13	12	33	35	255.31	11.61
626	20	24	29	22	5	232.25	13.07
627	21	6	25	35	13	245.15	12.02
628	21	23	9	28	19	219.72	11.31
629	14	30	7	34	15	221.24	11.99
630	20	17	12	34	17	227.31	11.50
631	35	16	24	9	16	215.03	10.53
632	31	14	11	24	20	218.86	10.64
633	14	6	32	32	16	254.17	12.76
634	32	11	8	20	29	223.78	9.49
635	6	29	25	33	7	247.02	13.85
636	35	16	25	7	17	222.97	10.65
637	34	16	19	11	20	218.24	10.51
638	21	14	17	30	18	235.77	11.71
639	18	30	12	29	11	217.75	12.42
640	14	9	25	28	24	251.56	12.06
641	23	14	35	13	15	242.80	11.92
642	22	17	28	16	17	233.22	11.74
643	27	6	25	15	27	237.71	10.83
644	21	25	23	15	16	227.87	11.71
645	30	18	8	24	20	216.89	10.43
646	20	29	17	7	27	228.04	11.14
647	24	17	15	27	17	229.09	11.45
648	31	16	14	15	24	216.77	10.28
649	26	13	19	9	33	234.50	10.26

650	20	10	27	35	8	243.67	12.58
651	19	34	26	11	10	220.13	12.85
652	13	25	19	21	22	239.67	12.19
653	9	33	21	21	16	231.03	13.35
654	30	29	18	13	10	208.68	12.09
655	20	18	31	15	16	240.86	11.96
656	31	26	7	23	13	202.14	10.58
657	13	14	27	14	32	252.67	12.06
658	26	13	33	12	16	236.96	11.70
659	18	31	10	24	17	217.86	11.82
660	33	11	21	26	9	221.50	11.18
661	25	20	6	31	18	216.72	10.89
662	24	8	30	33	5	239.32	12.26
663	16	35	30	13	6	231.29	13.98
664	24	32	24	5	15	216.51	12.18
665	7	26	26	18	23	252.58	12.85
666	27	12	18	25	18	229.62	10.95
667	31	11	17	18	23	221.90	10.23
668	10	18	27	31	14	250.57	12.95
669	13	17	33	13	24	252.12	12.64
670	15	31	5	22	27	223.71	11.10
671	13	11	26	29	21	252.61	12.37
672	32	5	8	29	26	224.80	10.10
673	10	22	21	20	27	247.59	12.25
674	29	16	17	7	31	223.24	10.02
675	34	6	12	13	35	226.82	9.35
676	15	24	25	25	11	239.45	12.52
677	9	33	21	14	23	237.14	12.47
678	16	33	19	15	17	218.28	12.46
679	32	21	6	29	12	205.63	10.79
680	12	15	16	22	35	249.99	10.89
681	22	24	21	13	20	224.16	11.66
682	27	14	30	19	10	229.13	12.13
683	24	5	17	23	31	236.13	10.78
684	17	12	23	22	26	248.19	11.54
685	12	34	5	21	28	226.60	10.97
686	8	35	5	21	31	235.96	11.57
687	7	26	26	9	32	255.89	12.57
688	13	18	32	8	29	251.72	12.17
689	22	22	21	27	8	227.87	12.21
690	13	16	19	34	18	238.65	12.22
691	29	13	32	16	10	230.57	11.69
692	15	31	22	23	9	225.70	13.42
693	32	13	25	7	23	228.52	10.60
694	21	32	11	15	21	212.44	11.58
695	18	32	21	11	18	224.78	12.29
696	29	5	21	14	31	236.02	10.10
697	17	32	23	8	20	225.23	12.03
698	14	27	19	6	34	238.35	11.07
699	28	16	8	13	35	220.43	9.64
700	32	13	34	8	13	229.07	11.51

[821]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
h	20	20	20	20	20	140.76	9.50
701	18	5	22	34	21	151.29	8.78
702	30	14	10	11	35	134.91	7.24
703	16	27	33	7	17	153.21	11.09
704	23	31	6	11	29	123.30	8.54
705	5	35	21	26	13	152.59	11.49
706	13	16	8	30	33	142.05	8.03
707	35	10	28	14	13	145.02	9.21
708	22	35	5	25	13	122.24	10.73
709	6	27	19	34	14	152.79	10.66
710	22	28	10	18	22	130.31	9.30
711	19	35	15	11	20	130.56	10.23
712	16	17	7	33	27	134.68	8.31
713	18	31	11	11	29	131.51	8.75
714	28	33	13	18	8	124.82	10.74
715	7	32	19	16	26	150.34	9.67
716	27	18	29	19	7	148.14	10.72
717	34	10	9	25	22	135.15	8.14
718	29	30	19	10	12	128.96	10.58
719	27	22	8	15	28	130.75	7.53
720	27	17	32	7	17	149.46	9.83
721	34	29	20	11	6	126.57	10.58
722	10	33	20	26	11	147.33	11.46
723	14	35	18	12	21	141.47	10.54
724	24	13	35	13	15	153.63	10.04
725	8	33	5	21	33	136.15	8.73
726	12	14	28	35	11	157.73	10.39
727	27	10	21	10	32	145.07	8.02
728	21	19	15	32	13	144.29	9.78
729	24	6	35	12	23	154.55	9.13
730	35	17	8	11	29	128.40	7.60
731	12	11	20	22	35	155.56	8.21
732	5	35	11	29	20	145.49	10.31
733	9	14	16	29	32	151.05	8.36
734	26	22	28	18	6	146.00	10.93
735	21	16	24	9	30	147.27	8.46
736	27	8	30	27	8	150.05	10.11
737	10	17	30	23	20	160.35	9.90
738	8	16	19	32	25	151.12	8.90
739	14	27	11	18	30	138.21	8.68
740	7	29	31	14	19	161.70	10.87
741	30	32	6	7	25	114.72	8.91
742	13	19	9	35	24	142.46	8.89
743	18	20	7	31	24	138.55	8.78
744	28	12	21	17	22	144.89	8.65
745	15	7	29	19	30	156.14	8.67
746	14	30	10	28	18	135.39	9.96
747	31	7	19	34	9	143.14	9.48
748	21	11	11	34	23	142.97	8.42
749	15	29	11	21	24	140.15	9.44

750	5	35	21	11	28	148.00	10.01
751	23	27	28	10	12	146.31	10.43
752	5	33	19	34	9	155.96	11.49
753	34	12	21	5	28	140.02	7.97
754	12	10	26	31	21	153.61	9.27
755	22	20	19	8	31	144.59	8.31
756	15	15	32	31	7	161.66	10.96
757	26	30	9	25	10	126.08	10.55
758	31	11	29	20	9	147.32	10.00
759	19	27	8	32	14	135.36	10.08
760	21	21	26	8	24	146.20	9.44
761	5	34	5	31	25	141.06	9.53
762	21	10	23	11	35	147.96	8.01
763	7	10	31	28	24	164.56	9.36
764	32	31	9	19	9	120.18	10.36
765	21	30	25	17	7	147.04	11.56
766	13	26	29	5	27	151.92	9.69
767	31	23	19	20	7	135.76	10.31
768	11	23	14	25	27	146.30	8.94
769	21	11	30	5	33	154.07	8.41
770	27	29	13	21	10	131.02	10.44
771	26	11	34	12	17	156.20	9.64
772	21	13	30	17	19	152.96	9.49
773	28	6	13	35	18	140.31	8.24
774	11	33	13	9	34	140.04	8.80
775	19	5	30	34	12	156.07	9.76
776	31	16	15	22	16	138.36	9.20
777	5	33	21	23	18	152.12	11.09
778	19	16	18	15	32	141.42	8.14
779	25	23	10	22	20	133.92	9.11
780	7	32	32	10	19	156.22	11.32
781	5	31	27	16	21	158.84	10.59
782	5	31	26	15	23	158.96	10.46
783	26	23	34	8	9	148.71	11.12
784	19	31	17	27	6	138.42	11.55
785	21	11	6	30	32	140.01	7.74
786	14	29	19	26	12	146.73	11.17
787	11	34	23	19	13	149.12	11.07
788	8	16	25	34	17	159.04	9.93
789	33	17	5	10	35	122.68	7.12
790	24	23	17	14	22	138.82	9.00
791	16	11	23	33	17	152.81	9.59
792	34	25	25	5	11	130.81	10.35
793	30	7	29	19	15	149.14	9.27
794	13	27	15	11	34	137.13	8.60
795	27	8	17	31	17	143.32	8.96
796	32	27	5	28	8	126.68	10.12
797	21	11	18	20	30	148.95	8.21
798	22	24	12	30	12	135.69	10.42
799	7	33	10	18	32	141.83	8.68
800	21	8	11	27	33	141.52	7.59

[876]	Cu%	Fe%	Ni%	Cr%	Co%	E (Gpa)	Ys (Gpa)
i	20	20	20	20	20	263.35	14.44
801	20	18	32	15	15	273.04	15.30
802	11	18	34	17	20	287.31	16.03
803	31	7	21	6	35	274.26	12.48
804	20	14	27	7	32	284.07	13.73
805	21	17	9	25	28	268.91	13.27
806	17	35	19	22	7	251.50	16.18
807	7	32	29	15	17	283.52	16.34
808	23	28	33	6	10	259.34	15.34
809	13	31	24	10	22	273.16	15.72
810	15	15	27	18	25	283.37	14.94
811	30	31	6	5	28	236.61	12.54
812	25	31	6	21	17	239.19	13.92
813	22	27	13	16	22	250.66	14.11
814	31	5	28	19	17	270.23	13.86
815	31	13	33	8	15	262.82	14.05
816	23	29	9	32	7	245.11	14.64
817	21	10	18	28	23	281.10	14.14
818	7	13	20	29	31	299.76	15.49
819	14	33	12	6	35	265.83	14.60
820	35	6	5	20	34	257.17	11.46
821	16	9	25	34	16	282.96	15.31
822	22	20	5	28	25	260.15	13.49
823	19	23	30	23	5	271.53	16.28
824	23	21	17	16	23	259.01	13.91
825	18	18	25	34	5	268.28	15.96
826	30	14	16	29	11	250.90	13.53
827	27	19	23	6	25	257.87	13.64
828	20	34	20	5	21	253.14	14.56
829	6	22	17	21	34	292.15	15.43
830	18	26	8	27	21	257.53	14.44
831	10	34	35	15	6	272.70	17.97
832	31	16	21	11	21	252.08	13.15
833	24	28	20	14	14	248.34	14.22
834	27	17	16	32	8	250.78	14.26
835	6	35	19	33	7	269.31	17.87
836	5	27	26	16	26	292.29	16.85
837	24	13	20	22	21	264.50	13.99
838	28	34	22	7	9	239.06	15.10
839	33	11	15	13	28	256.87	12.60
840	31	13	20	23	13	253.84	13.63
841	7	28	16	27	22	275.97	16.10
842	25	32	8	28	7	239.08	14.65
843	7	15	30	34	14	289.02	16.74
844	24	16	24	17	19	270.03	13.99
845	14	31	12	26	17	262.30	15.07
846	28	26	8	28	10	236.96	13.81
847	27	18	6	31	18	252.32	13.44
848	6	23	17	28	26	289.21	15.63
849	7	29	22	33	9	274.06	16.82

850	26	35	12	20	7	234.90	14.87
851	14	30	17	21	18	263.19	15.57
852	9	22	22	19	28	289.91	15.55
853	26	18	32	10	14	258.85	14.67
854	16	19	20	34	11	276.06	15.55
855	21	13	7	33	26	264.56	13.44
856	5	35	21	10	29	280.14	16.46
857	31	5	27	26	11	260.67	14.10
858	21	31	30	13	5	256.79	16.05
859	25	31	15	10	19	241.74	14.58
860	21	26	25	22	6	252.52	15.73
861	32	31	15	13	9	231.07	14.49
862	18	26	10	23	23	262.63	14.06
863	26	24	12	31	7	241.82	14.68
864	22	9	26	26	17	272.48	14.45
865	22	28	13	6	31	254.91	13.52
866	16	16	22	25	21	282.14	14.92
867	30	10	16	14	30	267.09	12.59
868	32	8	25	10	25	265.86	13.07
869	33	10	16	12	29	259.73	12.39
870	34	18	16	10	22	245.93	12.78
871	28	8	33	21	10	271.27	14.68
872	18	23	26	5	28	271.53	14.64
873	30	19	6	29	16	243.58	12.98
874	5	34	22	9	30	284.15	16.80
875	22	29	10	12	27	252.47	13.75
876	15	30	11	32	12	253.42	15.48
877	14	14	21	33	18	283.25	15.30
878	24	28	13	7	28	252.38	13.25
879	29	12	11	22	26	261.68	12.76
880	22	19	18	19	22	267.34	14.18
881	19	14	33	28	6	272.43	15.91
882	20	8	24	17	31	286.62	14.23
883	20	32	20	15	13	255.44	15.34
884	6	28	25	16	25	288.26	16.70
885	11	17	35	18	19	290.61	16.11
886	19	17	21	30	13	269.14	15.00
887	25	27	8	7	33	253.33	12.64
888	7	21	33	22	17	295.19	17.28
889	15	12	17	31	25	285.75	14.61
890	22	26	25	5	22	261.74	14.64
891	15	22	22	19	22	274.93	15.14
892	22	29	8	19	22	247.88	13.87
893	21	7	32	17	23	278.92	14.89
894	21	30	26	17	6	254.56	16.04
895	26	25	8	23	18	246.16	13.62
896	23	16	35	12	14	269.57	15.19
897	16	19	24	12	29	280.54	14.90
898	28	7	29	15	21	273.84	13.86
899	13	34	20	23	10	259.43	16.05
900	23	10	13	19	35	274.84	13.07