Overview

Shielding Effect (Block 7)	
Played on	14 Nov 2019
Hosted by	anonymous
Played with	25 players
Played	10 of 10

Overall Performance	
Total correct answers (%)	91,209
Total incorrect answers (%)	8,80%
Average score (points)	10420

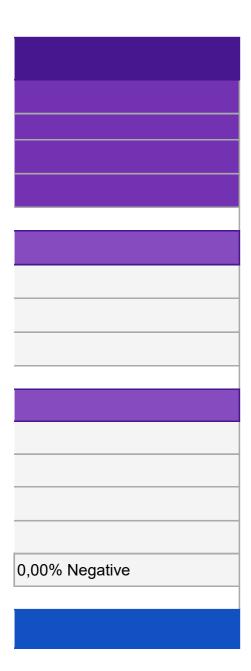
Feedback	
Number of responses	0
How fun was it? (out of 5)	0,00 o
Did you learn something?	0,00%
Do you recommend it?	0,00%
How do you feel?	•

Switch tabs/pages to view other result breakdown

Overview

%			
,48 points			
ut of 5			
Yes	0,00%	No	
Yes	0,00%	No	
0,00% Positive	0	0,00% Neutral	•

Overview



Shielding Effect (Block 7)

Final Scores Players Rank 1 Jay 2 victoria 3 Dana 4 Carly 5 Kent 6 fernanda 7 Will c 8 Shane 9 willow 10 Orion 11 kyle 12 Garrett Keeney 13 niklas 14 Emily 15 Daniel 16 kevy 17 henry 18 lauren 19 Savannah 20 wes 21 sophie 22 maya

Final Scores

23	Brandon
24	 William L ≰ □
25	balin

Final Scores

Total Score (points)	Correct Answers	Incorrect Answers
13485	10	0
13147	10	0
12686	10	0
12656	10	0
12610	10	0
12604	10	0
12452	10	0
12409	10	0
12318	10	0
11958	10	0
11312	10	0
10643	10	0
10266	9	1
10245	9	1
10102	9	1
9981	9	1
9589	9	1
8918	8	2
8605	9	1
8298	8	2
8205	8	2
7639	8	2

Final Scores

7523	8	2
7424	8	2
5437	6	4

Shielding Effect (Block 7)

Kahoot! Sur	nmary
Rank	Players
1	Jay
2	victoria
3	Dana
4	Carly
5	Kent
6	fernanda
7	Will c
8	Shane
9	willow
10	Orion
11	kyle
12	Garrett Keeney
13	niklas
14	Emily
15	Daniel

16	kevy
17	henry
18	lauren
19	Savannah
20	wes
21	sophie
22	maya
23	Brandon
24	M William L 4 ⊡
25	balin

	ot. Buillinary
Total Score (points)	Q1
13485	1000
13147	777
12686	888
12656	888
12610	827
12604	897
12452	942
12409	883
12318	808
11958	872
11312	765
10643	760
10266	953
10245	910
10102	923

9981	810
9589	742
8918	893
8605	795
8298	810
8205	960
7639	775
7523	795
7424	818
5437	0

What is the shielding effect?	Q2
A result of inner core electrons interfering with Protons and V Electrons	1100
A result of inner core electrons interfering with Protons and V Electrons	1067
A result of inner core electrons interfering with Protons and V Electrons	1050
A result of inner core electrons interfering with Protons and V Electrons	1017
A result of inner core electrons interfering with Protons and V Electrons	1037
A result of inner core electrons interfering with Protons and V Electrons	1037
A result of inner core electrons interfering with Protons and V Electrons	1058
A result of inner core electrons interfering with Protons and V Electrons	1075
A result of inner core electrons interfering with Protons and V Electrons	1022
A result of inner core electrons interfering with Protons and V Electrons	978
A result of inner core electrons interfering with Protons and V Electrons	962
A result of inner core electrons interfering with Protons and V Electrons	687
A result of inner core electrons interfering with Protons and V Electrons	1047
A result of inner core electrons interfering with Protons and V Electrons	1013
A result of inner core electrons interfering with Protons and V Electrons	1028

A result of inner core electrons interfering with Protons and V Electrons	955
A result of inner core electrons interfering with Protons and V Electrons	960
A result of inner core electrons interfering with Protons and V Electrons	1005
A result of inner core electrons interfering with Protons and V Electrons	995
A result of inner core electrons interfering with Protons and V Electrons	905
A result of inner core electrons interfering with Protons and V Electrons	1030
A result of inner core electrons interfering with Protons and V Electrons	873
A result of inner core electrons interfering with Protons and V Electrons	905
A result of inner core electrons interfering with Protons and V Electrons	1027
	830

How is Shielding Measured?	Q3
It's based on the number of inner core orbitals.	1200
It's based on the number of inner core orbitals.	1190
It's based on the number of inner core orbitals.	1085
It's based on the number of inner core orbitals.	1040
It's based on the number of inner core orbitals.	1077
It's based on the number of inner core orbitals.	1037
It's based on the number of inner core orbitals.	1077
It's based on the number of inner core orbitals.	960
It's based on the number of inner core orbitals.	1103
It's based on the number of inner core orbitals.	965
It's based on the number of inner core orbitals.	937
It's based on the number of inner core orbitals.	972
It's based on the number of inner core orbitals.	0
It's based on the number of inner core orbitals.	1097
It's based on the number of inner core orbitals.	0

It's based on the number of inner core orbitals.	1078
It's based on the number of inner core orbitals.	1188
It's based on the number of inner core orbitals.	1085
It's based on the number of inner core orbitals.	955
It's based on the number of inner core orbitals.	1023
It's based on the number of inner core orbitals.	1100
It's based on the number of inner core orbitals.	0
It's based on the number of inner core orbitals.	1062
It's based on the number of inner core orbitals.	980
It's based on the number of inner core orbitals.	865

How does The Shielding Effect Impact valence electrons?	Q4
Making the valence electrons more easy to remove from the atom than others.	1300
Making the valence electrons more easy to remove from the atom than others.	1300
Making the valence electrons more easy to remove from the atom than others.	1222
Making the valence electrons more easy to remove from the atom than others.	1272
Making the valence electrons more easy to remove from the atom than others.	1213
Making the valence electrons more easy to remove from the atom than others.	1208
Making the valence electrons more easy to remove from the atom than others.	1255
Making the valence electrons more easy to remove from the atom than others.	1235
Making the valence electrons more easy to remove from the atom than others.	1220
Making the valence electrons more easy to remove from the atom than others.	1200
Making the valence electrons more easy to remove from the atom than others.	1073
Making the valence electrons more easy to remove from the atom than others.	850
It doesn't	938
Making the valence electrons more easy to remove from the atom than others.	1270
It doesn't	922

Making the valence electrons more easy to remove from the atom than others.	1222
Making the valence electrons more easy to remove from the atom than others.	1200
Making the valence electrons more easy to remove from the atom than others.	1262
Making the valence electrons more easy to remove from the atom than others.	1185
Making the valence electrons more easy to remove from the atom than others.	1262
Making the valence electrons more easy to remove from the atom than others.	1215
Changes their charge	815
Making the valence electrons more easy to remove from the atom than others.	1075
Making the valence electrons more easy to remove from the atom than others.	1222
Making the valence electrons more easy to remove from the atom than others.	930

What is effective nuclear charge?	Q5
The net charge an electron experience in an atom with multiple electrons	1400
The net charge an electron experience in an atom with multiple electrons	1400
The net charge an electron experience in an atom with multiple electrons	1213
The net charge an electron experience in an atom with multiple electrons	1325
The net charge an electron experience in an atom with multiple electrons	1202
The net charge an electron experience in an atom with multiple electrons	1332
The net charge an electron experience in an atom with multiple electrons	1267
The net charge an electron experience in an atom with multiple electrons	1348
The net charge an electron experience in an atom with multiple electrons	1273
The net charge an electron experience in an atom with multiple electrons	1290
The net charge an electron experience in an atom with multiple electrons	1262
The net charge an electron experience in an atom with multiple electrons	1203
The net charge an electron experience in an atom with multiple electrons	1047
The net charge an electron experience in an atom with multiple electrons	1368
The net charge an electron experience in an atom with multiple electrons	1027

The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons		
with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons	· · · · · · · · · · · · · · · · · · ·	1333
with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons		1260
with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons	•	1342
with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons	•	0
with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom	•	1365
with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom	-	0
with multiple electrons The net charge an electron experience in an atom with multiple electrons The net charge an electron experience in an atom	•	853
with multiple electrons The net charge an electron experience in an atom	-	1235
•	·	0
	· ·	1040

How does Coulomb's law impact this trend?	Q6
Making it so electrons do not always feel the charge.	1500
Making it so electrons do not always feel the charge.	1500
Making it so electrons do not always feel the charge.	1468
Making it so electrons do not always feel the charge.	1430
Making it so electrons do not always feel the charge.	1460
Making it so electrons do not always feel the charge.	1438
Making it so electrons do not always feel the charge.	1425
Making it so electrons do not always feel the charge.	1463
Making it so electrons do not always feel the charge.	1423
Making it so electrons do not always feel the charge.	1293
Making it so electrons do not always feel the charge.	1270
Making it so electrons do not always feel the charge.	1100
Making it so electrons do not always feel the charge.	1170
Making it so electrons do not always feel the charge.	1418
Making it so electrons do not always feel the charge.	1105

Making it so electrons do not always feel the charge.	1403
Making it so electrons do not always feel the charge.	1170
Making it so electrons do not always feel the charge.	1408
It doesn't	775
Making it so electrons do not always feel the charge.	0
It doesn't	865
Making it so electrons do not always feel the charge.	1063
Making it so electrons do not always feel the charge.	0
It doesn't	815
Making it so electrons do not always feel the charge.	0

What period has the larges value?	Q7
Period 7	1500
Period 7	1488
Period 7	1433
Period 7	1313
Period 7	1427
Period 7	1323
Period 7	1363
Period 7	1455
Period 7	1287
Period 7	1365
Period 7	1342
Period 7	1175
Period 7	983
Period 7	0
Period 7	997

Period 7	0
Period 7	1188
Period 7	0
Period 7	900
Period 2	0
Period 7	0
Period 7	1175
	532
Period 7	982
	0

How does this trend impact chemical reactions?	Q8
How the nucleus attracts electrons	1500
How the nucleus attracts electrons	1492
How the nucleus attracts electrons	1475
How the nucleus attracts electrons	1463
How the nucleus attracts electrons	1470
How the nucleus attracts electrons	1470
How the nucleus attracts electrons	1485
How the nucleus attracts electrons	1478
How the nucleus attracts electrons	1472
How the nucleus attracts electrons	1480
How the nucleus attracts electrons	1295
How the nucleus attracts electrons	1273
How the nucleus attracts electrons	1378
It changes the amount of Protons How the nucleus attracts electrons	983 1380
TIOW THE HUCIEUS ATTRACTS ELECTIONS	1300

It changes the amount of Protons	975
How the nucleus attracts electrons	0
It changes the amount of Protons	0
How the nucleus attracts electrons	860
It changes the amount of Protons	877
It changes the amount of Protons	970
How the nucleus attracts electrons	1327
How the nucleus attracts electrons	1032
How the nucleus attracts electrons	0
It doesn't	0

Which Period has the smallest Value	Q9
Period 1	1485
Period 1	1433
Period 1	1405
Period 1	1458
Period 1	1450
Period 1	1470
Period 1	1148
Period 1	1275
Period 1	1443
Period 1	1110
Period 1	1063
Period 1	1265
Period 1	1375
Period 1	1013
Period 1	1333

Period 1	1063
Period 4	923
Period 4	910
Period 1	983
Period 1	973
Period 1	998
Period 1	0
Period 1	0
Period 2	670
Period 4	870

Is Zeff = Z -S the equation for effective nuclear charge?	Q10
True	1500
True	1500
True	1447
True	1450
True	1447
True	1392
True	1432
True	1237
True	1267
True	1405
True	1343
True	1358
True	1375
True	1173
True	1387

True	1142
True	958
True	1013
True	1157
True	1083
True	1067
False	758
False	887
True	910
True	902

How does shielding impact atomic radious?
because more shielding means more orbitals so larger atom.
because more shielding means more orbitals so larger atom.
because more shielding means more orbitals so larger atom.
because more shielding means more orbitals so larger atom.
because more shielding means more orbitals so larger atom.
because more shielding means more orbitals so larger atom.
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because more shielding means more orbitals so larger atom.
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because more shielding means more orbitals so larger atom.
because more shielding means more orbitals so larger atom.

Shielding

1 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

Orion

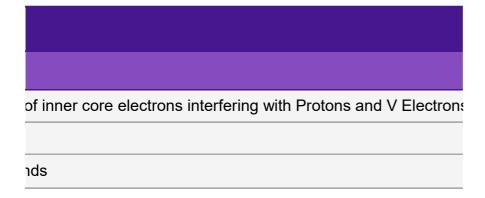
Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
≰ William L ≰ □

Effect (Block 7)	
What is the shielding effect?	
;	A result
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ken to answer (seconds)	
ails	Answer
	√ □

1 Quiz

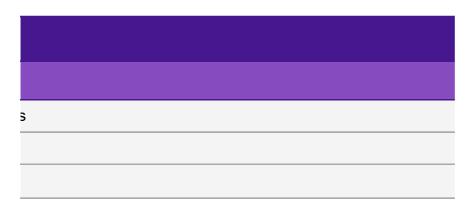
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Fission		•
	X	
		0
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	Score (p
A result of inner core electrons interfering with Protons and V Electrons	795
A result of inner core electrons interfering with Protons and V Electrons	888
A result of inner core electrons interfering with Protons and V Electrons	888
A result of inner core electrons interfering with Protons and V Electrons	923
A result of inner core electrons interfering with Protons and V Electrons	910
A result of inner core electrons interfering with Protons and V Electrons	760
A result of inner core electrons interfering with Protons and V Electrons	1000
A result of inner core electrons interfering with Protons and V Electrons	827
A result of inner core electrons interfering with Protons and V Electrons	872
A result of inner core electrons interfering with Protons and V Electrons	795

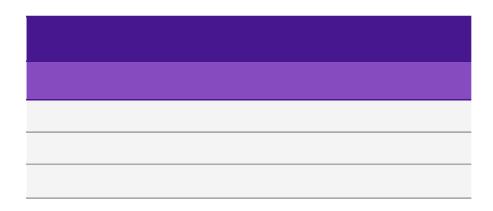
A result of inner core electrons interfering with	883
Protons and V Electrons	000
A result of inner core electrons interfering with	942
Protons and V Electrons	J-72
	0
A result of inner core electrons interfering with	897
Protons and V Electrons	091
A result of inner core electrons interfering with	742
Protons and V Electrons	172
A result of inner core electrons interfering with	810
Protons and V Electrons	010
A result of inner core electrons interfering with	765
Protons and V Electrons	7 00
A result of inner core electrons interfering with	893
Protons and V Electrons	000
A result of inner core electrons interfering with	775
Protons and V Electrons	110
A result of inner core electrons interfering with	953
Protons and V Electrons	
A result of inner core electrons interfering with	960
Protons and V Electrons	
A result of inner core electrons interfering with	777
Protons and V Electrons	
A result of inner core electrons interfering with	810
Protons and V Electrons	0.0
A result of inner core electrons interfering with	808
Protons and V Electrons	
A result of inner core electrons interfering with	818
Protons and V Electrons	





oints)	Current
	795
	888
	888
	923
	910
	760
	1000
	827
	872
	795

883
942
0
897
742
810
765
893
775
953
960
777
810
808
818



A result of inner core electrons interfering with	_
Protons and V Electrons	
√ □	
24	
8,78	

Total Score (points)	Answer ti
	12,3
	6,7
	6,7
	4,6
	5,4
	14,4
	0,3
	10,4
	7,7
	12,3

7
3,5
0
6,2
15,5
11,4
14,1
6,4
13,5
2,8
2,4
13,4
11,4
11,5
10,9

Protons blocking Electrons	
X	
,	0
	0,00
	0,00
ime (seconds)	

Shielding

2 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

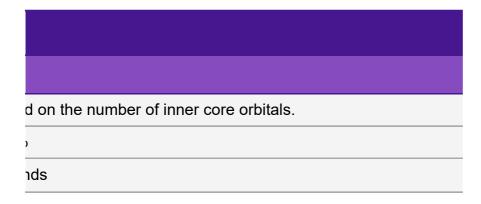
Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
∌ William L ∳ □

Effect (Block 7)	
How is Shielding Measured?	
;	It's base
(%)	100,00%
วท	30 secor
aman.	
nmary	
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pt?	
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ken to answer (seconds)	
ails	
	Answer
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	√□
	√ □
	√1
	√ □
	√ □
	√ 1

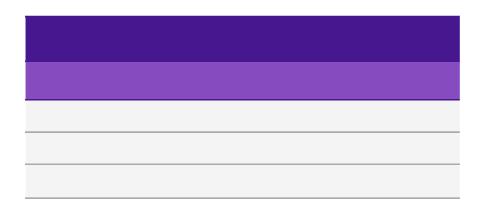
√
√ □
√ 0
√ □



Amount of Protons	*
X	
0	
0,00	

	Score (p
It's based on the number of inner core orbitals.	905
It's based on the number of inner core orbitals.	1017
It's based on the number of inner core orbitals.	1050
It's based on the number of inner core orbitals.	1028
It's based on the number of inner core orbitals.	1013
It's based on the number of inner core orbitals.	687
It's based on the number of inner core orbitals.	1100
It's based on the number of inner core orbitals.	1037
It's based on the number of inner core orbitals.	978
It's based on the number of inner core orbitals.	995

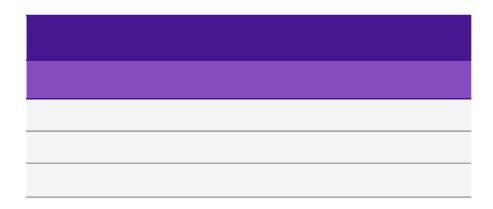
It's based on the number of inner core orbitals.	1075
It's based on the number of inner core orbitals.	1058
It's based on the number of inner core orbitals.	830
It's based on the number of inner core orbitals.	1037
It's based on the number of inner core orbitals.	960
It's based on the number of inner core orbitals.	955
It's based on the number of inner core orbitals.	962
It's based on the number of inner core orbitals.	1005
It's based on the number of inner core orbitals.	873
It's based on the number of inner core orbitals.	1047
It's based on the number of inner core orbitals.	1030
It's based on the number of inner core orbitals.	1067
It's based on the number of inner core orbitals.	905
It's based on the number of inner core orbitals.	1022
It's based on the number of inner core orbitals.	1027
<u> </u>	



It's based on the number of inner core orbitals.	•
√ □	
25	
6,59	

oints)	Current
	1700
	1905
	1938
	1951
	1923
	1447
	2100
	1864
	1850
	1790
	

1958
2000
830
1934
1702
1765
1727
1898
1648
2000
1990
1844
1715
1830
1845



Amount of neutrons	-
X	
0	
0,00	

Total Score (points)	Answer ti
	11,7
	5
	3
	4,3
	5,2
	24,8
	0,4
	3,8
	7,3
	6,3

1,5
2,5
10,2
3,8
8,4
8,7
8,3
5,7
13,6
3,2
4,2
2
11,7
4,7
4,4

Atomic Number	
Х	
	0
	0,00
me (seconds)	

Shielding

3 Quiz

Correct answers

Players correct (

Question duratic

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

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Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
 William L

Effect (Block 7) **How does The Shielding Effect Impact valence electrons?** Making t (%) 88,00% 30 secor วท nmary ct? ers received ken to answer (seconds) ails Answer **√**□ **√ √**□ X **√**□ **√**□ **√**□ **√**□ **√**□ **√**□

√ □
√ □
Х
Х
√ □

he valence electrons more easy to remove from the atom thar

nds



	Score (p
Making the valence electrons more easy to remove from the atom than others.	1062
Making the valence electrons more easy to remove from the atom than others.	1040
Making the valence electrons more easy to remove from the atom than others.	1085
It doesn't	0
Making the valence electrons more easy to remove from the atom than others.	1097
Making the valence electrons more easy to remove from the atom than others.	972
Making the valence electrons more easy to remove from the atom than others.	1200
Making the valence electrons more easy to remove from the atom than others.	1077
Making the valence electrons more easy to remove from the atom than others.	965
Making the valence electrons more easy to remove from the atom than others.	955

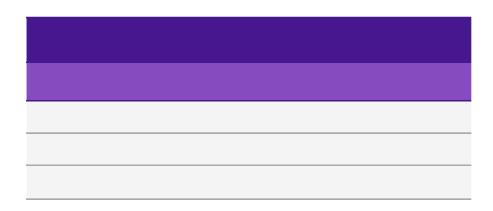
Making the valence electrons more easy to remove	960
from the atom than others.	
Making the valence electrons more easy to remove	1077
from the atom than others.	
Making the valence electrons more easy to remove	865
from the atom than others.	003
Making the valence electrons more easy to remove	1037
from the atom than others.	1007
Making the valence electrons more easy to remove	1188
from the atom than others.	1100
Making the valence electrons more easy to remove	1078
from the atom than others.	1076
Making the valence electrons more easy to remove	937
from the atom than others.	937
Making the valence electrons more easy to remove	4005
from the atom than others.	1085
Changes their charge	0
Changes their charge	0
It doesn't	0
Making the veloce of attempt many applies to remove	
Making the valence electrons more easy to remove	1100
from the atom than others.	
Making the valence electrons more easy to remove	1190
from the atom than others.	1100
Making the valence electrons more easy to remove	1023
from the atom than others.	1023
Making the valence electrons more easy to remove	1103
from the atom than others.	1103
Making the valence electrons more easy to remove	980
from the atom than others.	900

า others.			

Changes their charge	•
X	
1	
20,80	

oints)	Current
	2762
	2945
	3023
	1951
	3020
	2419
	3300
	2941
	2815
	2745

2918
3077
1695
2971
2890
2843
2664
2983
1648
2000
3090
3034
2738
2933
2825



The Valence Electrons become normal electrons.	•
X	
0	
0,00	

Total Score (points)	Answer ti
	8,3
	9,6
	6,9
	12,9
	6,2
	13,7
	0,3
	7,4
	14,1
	14,7

14,4
7,4
14,1
9,8
0,7
7,3
15,8
6,9
20,8
9,4
6
0,6
10,6
5,8
13,2

Making the valence electrons more easy to remove
from the atom than others.
√ □
22
8,81
me (seconds)

Shielding

4 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
∌ William L ∳ ⊒

Effect (Block 7)	
What is effective nuclear charge?	
3	The net
(%)	100,00%
on	30 secor
nmary	
iniary	
ot?	
rers received	
ken to answer (seconds)	
ails	
	Answer
	√ □
	√ 0
	√ □
	√ □

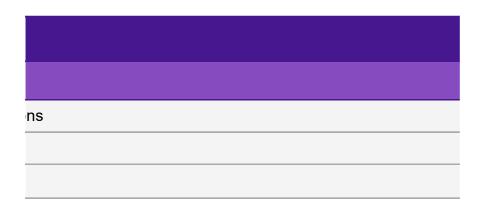
√ □
√ □

charge an electron experience in an atom with multiple electro

The net charge an electron experience in an atom	
with multiple electrons	
√ □	
25	
6,35	

	Score (p
The net charge an electron experience in an atom with multiple electrons	1075
The net charge an electron experience in an atom with multiple electrons	1272
The net charge an electron experience in an atom with multiple electrons	1222
The net charge an electron experience in an atom with multiple electrons	922
The net charge an electron experience in an atom with multiple electrons	1270
The net charge an electron experience in an atom with multiple electrons	850
The net charge an electron experience in an atom with multiple electrons	1300
The net charge an electron experience in an atom with multiple electrons	1213
The net charge an electron experience in an atom with multiple electrons	1200
The net charge an electron experience in an atom with multiple electrons	1185

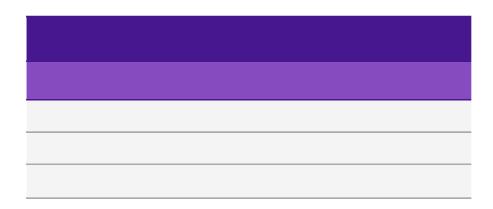
The net charge an electron experience in an atom with multiple electrons	1235
The net charge an electron experience in an atom	
with multiple electrons	1255
The net charge an electron experience in an atom	
with multiple electrons	930
The net charge an electron experience in an atom	4000
with multiple electrons	1208
The net charge an electron experience in an atom	1000
with multiple electrons	1200
The net charge an electron experience in an atom	1222
with multiple electrons	1222
The net charge an electron experience in an atom	1073
with multiple electrons	1073
The net charge an electron experience in an atom	1262
with multiple electrons	1202
The net charge an electron experience in an atom	815
with multiple electrons	0.10
The net charge an electron experience in an atom	938
with multiple electrons	
The net charge an electron experience in an atom	1215
with multiple electrons	1.2.0
The net charge an electron experience in an atom	1300
with multiple electrons	
The net charge an electron experience in an atom	1262
with multiple electrons	
The net charge an electron experience in an atom	1220
with multiple electrons	-
The net charge an electron experience in an atom	1222
with multiple electrons	



Negative charge	•
X	
0	
0,00	

oints)	Current
	3837
	4217
	4245
	2873
	4290
	3269
	4600
	4154
	4015
	3930

4153
4332
2625
4179
4090
4065
3737
4245
2463
2938
4305
4334
4000
4153
4047



A positive charge	•
X	
0	
0,00	

Total Score (points)	Answer ti
	13,5
	1,7
	4,7
	4,7
	1,8
	27
	0,2
	5,2
	6
	6,9

3,9
2,7
16,2
5,5
6
4,7
13,6
2,3
11,1
3,7
5,1
0,4
2,3
4,8
4,7

A neutral charge	
X neutral charge	
	0
	0,00
ime (seconds)	
(

Shielding

5 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

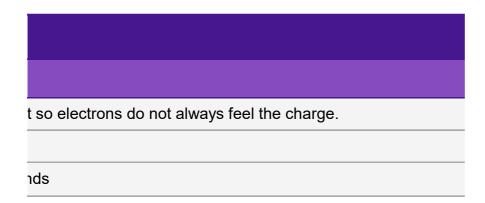
Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
∌ William L ∳ ⊒

Effect (Block 7)	
How does Coulomb's law impact this trend?	
;	Making i
(%)	88,00%
n	30 secor
nmary	
	<u> </u>
ot?	
/ers received	
ken to answer (seconds)	
ails	
	Answer
	√ □
	√□
	√ □
	√ □
	X

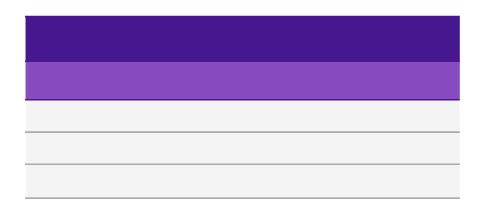
7 1
√ □
Х
√ □
√ □
√ □
Х



It doesn't	*
X	
3	
9,17	

	Score (p
Making it so electrons do not always feel the charge.	1235
Making it so electrons do not always feel the charge.	1325
Making it so electrons do not always feel the charge.	1213
Making it so electrons do not always feel the charge.	1027
Making it so electrons do not always feel the charge.	1368
Making it so electrons do not always feel the charge.	1203
Making it so electrons do not always feel the charge.	1400
Making it so electrons do not always feel the charge.	1202
Making it so electrons do not always feel the charge.	1290
It doesn't	0

Making it so electrons do not always feel the charge.	1348
Making it so electrons do not always feel the charge.	1267
Making it so electrons do not always feel the charge.	1040
Making it so electrons do not always feel the charge.	1332
Making it so electrons do not always feel the charge.	1260
Making it so electrons do not always feel the charge.	1333
Making it so electrons do not always feel the charge.	1262
Making it so electrons do not always feel the charge.	1342
Making it so electrons do not always feel the charge.	853
Making it so electrons do not always feel the charge.	1047
It doesn't	0
Making it so electrons do not always feel the charge.	1400
Making it so electrons do not always feel the charge.	1365
Making it so electrons do not always feel the charge.	1273
It doesn't	0



This law doesn't exist.	•
X	
0	
0,00	

5072 5542 5458 3900 5658 4472 6000 5356		
5542 5458 3900 5658 4472 6000 5356	oints)	Current
5458 3900 5658 4472 6000 5356 5308		5072
3900 5658 4472 6000 5356 5305		5542
5658 4472 6000 5356 5305		5458
4472 6000 5356 5305		3900
5356 5305		5658
5356		4472
5305		6000
		5356
3930		5305
		3930

5501
5599
3665
5511
5350
5398
4999
5587
3316
3985
4305
5734
5365
5426
4047
-

Making it so electrons do not always feel the charge.	
√ □	
22	
6,60	

Total Score (points)	Answer ti
	9,9
	4,5
	11,2
	4,4
	1,9
	11,8
	0,1
	11,9
	6,6
	8,4

3,1
8
15,6
4,1
8,4
4
8,3
3,5
14,8
3,2
15,8
0,2
2,1
7,6
3,3

The electrons have a strong charge	
X	
	0
	0,00
ime (seconds)	

Shielding

6 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

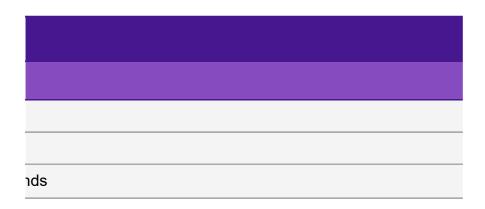
Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
∌ William L ∮

Effect (Block 7)	
What period has the larges value?	
;	Period 7
(%)	88,00%
n	30 secor
nmary	
	A
ot?	
vers received	
ken to answer (seconds)	
ails	
	Answer
	Х
	√ □
	√□
	√ □
	√ □
	√ □
	√0
	√ □
	√ □
	√ □

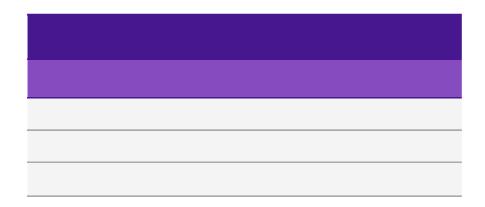
√ □
√ □
Х
√ □
Х
√ □
√ □



Period 1	•
X	
0	
0,00	

	Score (p
	0
Period 7	1430
Period 7	1468
Period 7	1105
Period 7	1418
Period 7	1100
Period 7	1500
Period 7	1460
Period 7	1293
Period 7	775

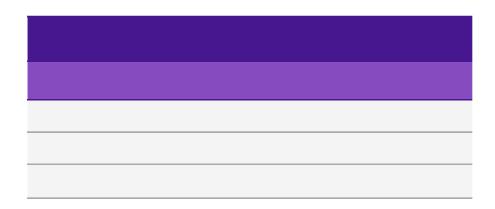
Period 7	1463
Period 7	1425
	0
Period 7	1438
Period 7	1170
Period 7	1403
Period 7	1270
Period 7	1408
Period 7	1063
Period 7	1170
Period 7	865
Period 7	1500
Period 2	0
Period 7	1423
Period 7	815
<u> </u>	



Period 2			•
	X		
		1	
		7,90	

oints)	Current
	5072
	6972
	6926
	5005
	7076
	5572
	7500
	6816
	6598
	4705

6964
7024
3665
6949
6520
6801
6269
6995
4379
5155
5170
7234
5365
6849
4862
_



Period 5	•
Х	
0	
0,00	

Total Score (points)	Answer ti
	30
	4,2
	1,9
	5,7
	4,9
	24
	0,2
	2,4
	12,4
	13,5

2,2
4,5
30
3,7
19,8
5,8
13,8
5,5
8,2
1,8
8,1
0,4
7,9
4,6
11,1

Period 7	
√□	
	22
	7,21
me (seconds)	
The (Seconds)	

Shielding

7 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

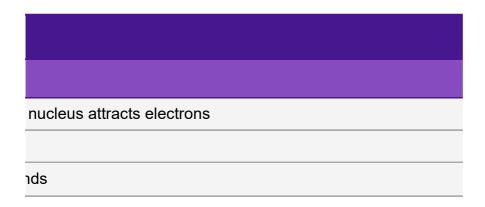
Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
∌ William L ∳ ⊒

Effect (Block 7)	
How does this trend impact chemical reactions?	
;	How the
(%)	76,00%
n	30 secor
nmary	
	A
pt?	
ers received	
ken to answer (seconds)	
ails	
	Answer
	√ □
	Х
	√ □
	√ □
	√ □
	√ □

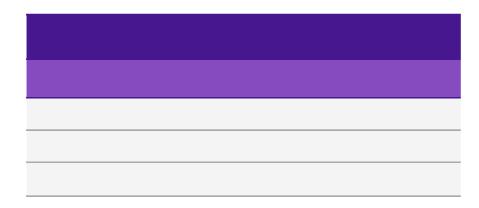
√ □
√ □
Х
√ □
√ □
Х
√ □
Х
√ □
√ □
Х
√ □
Х
√ □
√ □



How the nucleus attracts electrons	*
√□	
19	
10,65	

	Score (p
How the nucleus attracts electrons	532
How the nucleus attracts electrons	1313
How the nucleus attracts electrons	1433
How the nucleus attracts electrons	997
It changes the amount of Protons	0
How the nucleus attracts electrons	1175
How the nucleus attracts electrons	1500
How the nucleus attracts electrons	1427
How the nucleus attracts electrons	1365
How the nucleus attracts electrons	900

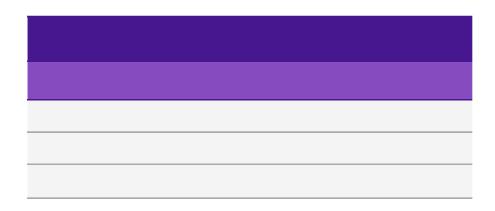
How the nucleus attracts electrons	1455
How the nucleus attracts electrons	1363
It doesn't	0
How the nucleus attracts electrons	1323
How the nucleus attracts electrons	1188
It changes the amount of Protons	0
How the nucleus attracts electrons	1342
It changes the amount of Protons	0
How the nucleus attracts electrons	1175
How the nucleus attracts electrons	983
It changes the amount of Protons	0
How the nucleus attracts electrons	1488
It changes the amount of Protons	0
How the nucleus attracts electrons	1287
How the nucleus attracts electrons	982



It doesn't		•
X		
	1	
	13,30	

oints)	Current
	5604
	8285
	8359
	6002
	7076
	6747
	9000
	8243
	7963
	5605

8419
8387
3665
8272
7708
6801
7611
6995
5554
6138
5170
8722
5365
8136
5844



It changes the amount of Protons	
X	
5	
5,52	

Total Score (points)	Answer ti
	28,1
	11,2
	4
	18,2
	1,6
	19,5
	0,1
	4,4
	8,1
	12

2,7
8,2
13,3
10,6
18,7
3
9,5
2,2
7,5
19
14,9
0,7
5,9
12,8
7,1

ime (seconds)		
ime (seconds)		
me (seconds)		
me (seconds)		
ime (seconds)		
me (seconds)		
ime (seconds)		
ime (seconds)		
me (seconds)		
me (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
me (seconds)		
ime (seconds)		
ime (seconds)		
me (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
me (seconds)		
me (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		
ime (seconds)		

Shielding

8 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

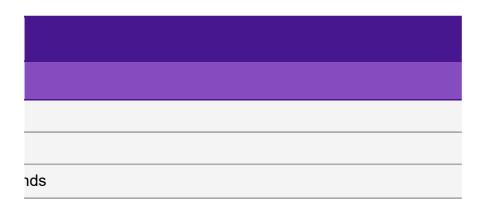
Orion

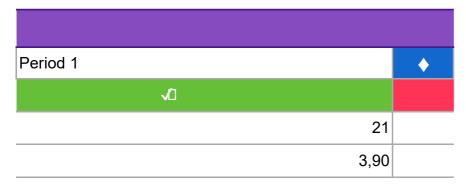
Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
∌ William L ∳ □

Effect (Block 7)	
Which Period has the smallest Value	
;	Period 1
(%)	84,00%
n	30 secor
nmary	
	A
pt?	
vers received	
ken to answer (seconds)	
ails	
alis	
	Answer
	√ □
	√ □
	√ □
	√1

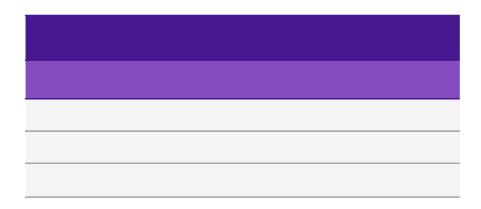
√ □
√ □
Х
√ □
X
√ □
√ □
Х
√ 0
√ □
√ □
 √ □
√ □
√ □
X





	Score (p
Period 1	1032
Period 1	1463
Period 1	1475
Period 1	1380
Period 1	983
Period 1	1273
Period 1	1500
Period 1	1470
Period 1	1480
Period 1	860

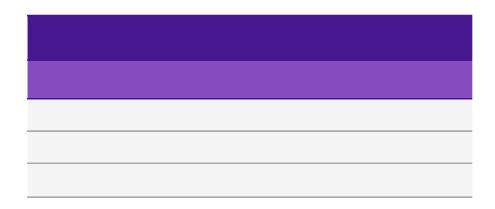
Period 1 1485 Period 4 0 Period 1 1470 Period 4 0 Period 1 975 Period 2 1295 Period 3 0 Period 4 0 Period 1 1327 Period 1 970		
Period 4 0 Period 1 1470 Period 4 0 Period 1 975 Period 2 1295 Period 3 0 Period 4 0 Period 1 1327 Period 1 1378 Period 1 970	Period 1	1478
Period 1 1470 Period 4 0 Period 1 975 Period 1 1295 Period 4 0 Period 1 1327 Period 1 1378 Period 1 970	Period 1	1485
Period 4 0 Period 1 975 Period 1 1295 Period 4 0 Period 1 1327 Period 1 1378 Period 1 970	Period 4	0
Period 1 975 Period 1 1295 Period 4 0 Period 1 1327 Period 1 1378 Period 1 970	Period 1	1470
Period 1 1295 Period 4 0 Period 1 1327 Period 1 1378 Period 1 970	Period 4	0
Period 4 0 Period 1 1327 Period 1 1378 Period 1 970	Period 1	975
Period 1 1327 Period 1 1378 Period 1 970	Period 1	1295
Period 1 1378 Period 1 970	Period 4	0
Period 1 970	Period 1	1327
	Period 1	1378
Period 1 1492	Period 1	970
	Period 1	1492
Period 1 877	Period 1	877
Period 1 1472	Period 1	1472
Period 2 0	Period 2	0



Period 4		•
X		
	3	
	12,27	

oints)	Current
	6636
	9748
	9834
	7382
	8059
	8020
	10500
	9713
	9443
	6465

9897
9872
3665
9742
7708
7776
8906
6995
6881
7516
6140
10214
6242
9608
5844



Period 2			•
	X		
		1	
		13,40	

Total Score (points)	Answer ti
	4,1
	2,2
	1,5
	1,2
	1
	13,6
	0,1
	1,8
	1,2
	20,4

1,3
0,9
19,6
1,8
13,9
1,5
12,3
3,3
4,4
1,3
1,8
0,5
7,4
1,7
13,4

ima (accanda)	
ime (seconds)	
me (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	
ime (seconds)	

Shielding

9 Quiz

Correct answers

Players correct (

Question duration

Answer Sun

Answer options

Is answer correct

Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

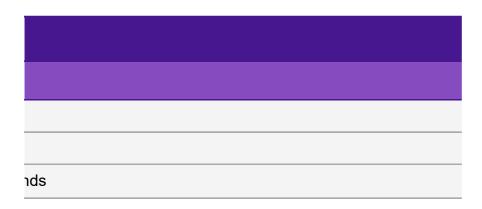
Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
≨ William L

Effect (Block 7)	
Is Zeff = Z -S the equation for effective nuclear charge?	
S	True
(%)	92,00%
n	20 secor
nmary	
	A
pt?	
vers received	
ken to answer (seconds)	
ails	
	Answer
	X
	√ □
	√ □

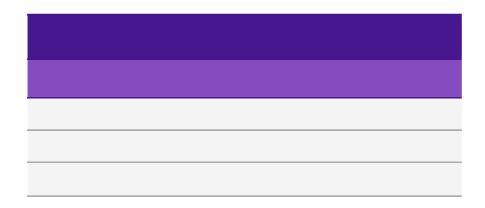
√
√ □
√ 0
√ □
Х
√ □





	Score (p
False	0
True	1458
True	1405
True	1333
True	1013
True	1265
True	1485
True	1450
True	1110
True	983

True	1275
True	1148
True	870
True	1470
True	923
True	1063
True	1063
True	910
False	0
True	1375
True	998
True	1433
True	973
True	1443
True	670



True			•
	√ □		
		23	
		6,24	

oints)	Current
	6636
	11206
	11239
	8715
	9072
	9285
	11985
	11163
	10553
	7448

11172
11020
4535
11212
8631
8839
9969
7905
6881
8891
7138
11647
7215
11051
6514

	-
Total Score (points)	Answer ti
Total Score (points)	Answer ti
Total Score (points)	
Total Score (points)	0,9
Total Score (points)	0,9
Total Score (points)	0,9 1,7 3,8
Total Score (points)	0,9 1,7 3,8 6,7
Total Score (points)	0,9 1,7 3,8 6,7 3,5
Total Score (points)	0,9 1,7 3,8 6,7 3,5 9,4
Total Score (points)	0,9 1,7 3,8 6,7 3,5 9,4 0,6

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14,1
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Shielding

10 Quiz

Correct answers

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Question duration

Answer Sun

Answer options

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Number of answ

Average time tal

Answer Deta

Players

Brandon

Carly

Dana

Daniel

Emily

Garrett Keeney

Jay

Kent

Orion

Savannah

Shane
Will c
balin
fernanda
henry
kevy
kyle
lauren
maya
niklas
sophie
victoria
wes
willow
≰ William L ≰ □

Effect (Block 7)	
How does shielding impact atomic radious?	
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more shielding means more orbitals so larger atom.

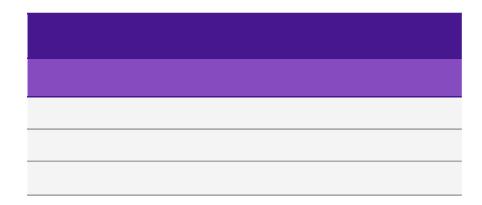
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because more shielding means more orbitals so	
larger atom.	
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25	
7,24	

	Score (p
because more shielding means more orbitals so larger atom.	887
because more shielding means more orbitals so larger atom.	1450
because more shielding means more orbitals so larger atom.	1447
because more shielding means more orbitals so larger atom.	1387
because more shielding means more orbitals so larger atom.	1173
because more shielding means more orbitals so larger atom.	1358
because more shielding means more orbitals so larger atom.	1500
because more shielding means more orbitals so larger atom.	1447
because more shielding means more orbitals so larger atom.	1405
because more shielding means more orbitals so larger atom.	1157

10 Quiz

because more shielding means more orbitals so larger atom.	1237
because more shielding means more orbitals so	1432
larger atom. because more shielding means more orbitals so	
larger atom.	902
because more shielding means more orbitals so larger atom.	1392
because more shielding means more orbitals so	958
larger atom. because more shielding means more orbitals so	4440
larger atom.	1142
because more shielding means more orbitals so larger atom.	1343
because more shielding means more orbitals so	1013
larger atom.	
because more shielding means more orbitals so larger atom.	758
because more shielding means more orbitals so	1375
larger atom.	
because more shielding means more orbitals so larger atom.	1067
because more shielding means more orbitals so	1500
larger atom.	
because more shielding means more orbitals so larger atom.	1083
because more shielding means more orbitals so	1267
larger atom.	.20.
because more shielding means more orbitals so larger atom.	910
larger atom.	

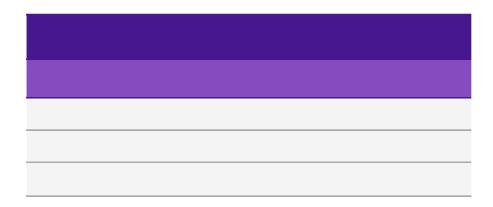


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oints)	Current
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	12610
	11958
	8605

10 Quiz

12409
12452
5437
12604
9589
9981
11312
8918
7639
10266
8205
13147
8298
12318
7424



Stay the same size	•
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Total Score (points)	Answer ti
	6,8
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	3,2
	6,8
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	8,5
	0,1
	3,2
	5,7
	14,6

10 Quiz

15,8
4,1
11,9
6,5
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Question Number		
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10 Quiz
10 Quiz

Question
What is the shielding effect?

What is the shielding effect?
What is the shielding effect?
What is the shedring effect:
What is the shielding effect?
What is the shielding effect?
What is the shielding effect? How is Shielding Measured?
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What is the shielding effect? How is Shielding Measured? How is Shielding Measured? How is Shielding Measured?

How is Shielding Measured?
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How does The Shielding Effect Impact valence electrons?		
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What is effective nuclear charge?	

What is effective nuclear charge?
What is effective nuclear charge?

What is effective nuclear charge? What is effective nuclear charge?
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How does Coulomb's law impact this trend?
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How does Coulomb's law impact this trend?
What period has the larges value?
What period has the larges value?

What period has the larges value?
What period has the larges value?

What period has the larges value?
What period has the larges value?
How does this trend impact chemical reactions?
How does this trend impact chemical reactions?
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How does this trend impact chemical reactions?
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How does this trend impact chemical reactions?	
How does this trend impact chemical reactions?	
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How does this trend impact chemical reactions?	
How does this trend impact chemical reactions?	

Which Period has the smallest Value
Which Period has the smallest Value

Which Period has the smallest Value
Which Period has the smallest Value
Is Zeff = Z -S the equation for effective nuclear charge?
Is Zeff = Z -S the equation for effective nuclear charge?
Is Zeff = Z -S the equation for effective nuclear charge?
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Is Zeff = Z -S the equation for effective nuclear charge? Is Zeff = Z -S the equation for effective nuclear charge? How does shielding impact atomic radious? How does shielding impact atomic radious?	
How does shielding impact atomic radious?	Is Zeff = Z -S the equation for effective nuclear charge?
How does shielding impact atomic radious?	Is Zeff = Z -S the equation for effective nuclear charge?
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How does shielding impact atomic radious?
How does shielding impact atomic radious?

Answer 1	Answer 2
Fission	Fussion

Fission	Fussion
Fission	Fussion
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.

Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
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Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.
Amount of Protons	It's based on the number of inner core orbitals.

It's based on the number of inner core orbitals.
It's based on the number of inner core orbitals.
It's based on the number of inner core orbitals.
Changes their charge

It doesn't	Changes their charge
It doesn't	Changes their charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge

The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
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The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
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The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge

The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
The net charge an electron experience in an atom with multiple electrons	Negative charge
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.

It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
It doesn't	This law doesn't exist.
Period 1	Period 2
Period 1	Period 2

Period 1	Period 2
Period 1	Period 2

Period 2
Period 2
It doesn't

It doesn't
It doesn't

Period 1	Period 4
Period 1	Period 4

Period 1	Period 4
Period 1	Period 4
False	True

False	True
False	True

-
True
True
Smaller atoms

because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms
because more shielding means more orbitals so larger atom.	Smaller atoms

Answer 3	Answer 4
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons
A result of inner core electrons interfering with Protons and V Electrons	Protons blocking Electrons

Protons blocking Electrons
Protons blocking Electrons
Atomic Number

Amount of neutrons	Atomic Number
Amount of neutrons	Atomic Number

Amount of neutrons	Atomic Number
Amount of neutrons	Atomic Number
Amount of neutrons	Atomic Number
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
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The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
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The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
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The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
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The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
The Valence Electrons become normal electrons.	Making the valence electrons more easy to remove from the atom than others.
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge

A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge

A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
A positive charge	A neutral charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge

Making it so electrons do not always feel the charge.	The electrons have a strong charge
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Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Making it so electrons do not always feel the charge.	The electrons have a strong charge
Period 5	Period 7
Period 5	Period 7

Period 5	Period 7
Period 5	Period 7

Period 7
Period 7

It changes the amount of Protons	
It changes the amount of Protons	
It changes the amount of Protons	
It changes the amount of Protons	
It changes the amount of Protons	
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It changes the amount of Protons	
It changes the amount of Protons	

Period 2	
Period 2	

Stay the same size	
Stay the same size	

Stay the same size	
Stay the same size	

Correct Answers	Time Allotted to Answer (seconds)
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
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A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30

A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
A result of inner core electrons interfering with Protons and V Electrons	30
It's based on the number of inner core orbitals.	30
It's based on the number of inner core orbitals.	30
It's based on the number of inner core orbitals.	30
It's based on the number of inner core orbitals.	30
It's based on the number of inner core orbitals.	30
It's based on the number of inner core orbitals.	30

It's based on the number of inner core orbitals.	30
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It's based on the number of inner core orbitals.	30
Making the valence electrons more easy to remove from the atom than others.	30
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The net charge an electron experience in an atom with multiple electrons	30
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Making it so electrons do not always feel the charge.	30
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Period 7	30
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Period 7	30
Period 7	30

Period 7	30
Period 7	30
How the nucleus attracts electrons	30
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Period 1	30
Period 1	30

Period 1	30
Period 1	30
True	20

True	20
True	20

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because more shielding means more orbitals so larger atom.	30
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Players
Brandon
Carly
Dana
Daniel
Emily
Garrett Keeney
Jay
Kent
Orion
Savannah
Shane
Will c
balin
fernanda
henry

kevy
kyle
lauren
maya
niklas
sophie
victoria
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Answer	Correct / Incorrect	Correct
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
	Incorrect	0
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1

A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
A result of inner core electrons interfering with Protons and V Electrons	Correct	1
It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1

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It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1

It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1
It's based on the number of inner core orbitals.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
It doesn't	Incorrect	0
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
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Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Changes their charge	Incorrect	0
It doesn't	Incorrect	0
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
Making the valence electrons more easy to remove from the atom than others.	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1

The net charge an electron experience in an atom with multiple electrons	Correct	1
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The net charge an electron experience in an atom with multiple electrons	Correct	1

The net charge an electron experience in an atom with multiple electrons	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1
The net charge an electron experience in an atom with multiple electrons	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
It doesn't	Incorrect	0
Making it so electrons do not always feel the charge.	Correct	1

Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
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Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
It doesn't	Incorrect	0
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
Making it so electrons do not always feel the charge.	Correct	1
It doesn't	Incorrect	0
	Incorrect	0
Period 7	Correct	1

Period 7	Correct	1
Period 7	Correct	1
	Incorrect	0
Period 7	Correct	1

Period 7	Correct	1
Period 7	Correct	1
Period 7	Correct	1
Period 7	Correct	1
Period 2	Incorrect	0
Period 7	Correct	1
Period 7	Correct	1
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
It changes the amount of Protons	Incorrect	0
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1

How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
It doesn't	Incorrect	0
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
It changes the amount of Protons	Incorrect	0
How the nucleus attracts electrons	Correct	1
It changes the amount of Protons	Incorrect	0
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1
It changes the amount of Protons	Incorrect	0
How the nucleus attracts electrons	Correct	1
It changes the amount of Protons	Incorrect	0
How the nucleus attracts electrons	Correct	1
How the nucleus attracts electrons	Correct	1

Period 1	Correct	1
Period 1	Correct	1
Period 4	Incorrect	0
Period 1	Correct	1
Period 4	Incorrect	0
Period 1	Correct	1

Period 1	Correct	1
Period 4	Incorrect	0
Period 1	Correct	1
Period 2	Incorrect	0
False	Incorrect	0
True	Correct	1

True	Correct	1
True	Correct	1
False	Incorrect	0
True	Correct	1

Decause more shielding means more orbitals so larger atom. Correct 1 Correct 1			
because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. correct 1 because more shielding means more orbitals so larger atom. correct 1 because more shielding means more orbitals so larger atom. correct 1 because more shielding means more orbitals so larger atom. correct 1 correct 1	True	Correct	1
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larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. because more shielding means more orbitals so larger atom. Correct 1 Correct 1 Correct 1 because more shielding means more orbitals so larger atom. Correct 1 because more shielding means more orbitals so larger atom. Correct 1 because more shielding means more orbitals so larger atom. Correct 1 because more shielding means more orbitals so larger atom. Correct 1 because more shielding means more orbitals so larger atom. Correct 1 Correct 1 Correct 1 Correct 1 because more shielding means more orbitals so larger atom. Correct 1	because more shielding means more orbitals so larger atom.	Correct	1
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larger atom. because more shielding means more orbitals so larger atom. Correct Correct 1 Correct 1	because more shielding means more orbitals so larger atom.	Correct	1
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because more shielding means more orbitals so Correct 1	_	Correct	1
I COMPCI	_	Correct	1
	_	Correct	1

Incorrect	Score (points)	Score without Answer Streak Bonus (points)
0	795	795
0	888	888
0	888	888
0	923	923
0	910	910
0	760	760
0	1000	1000
0	827	827
0	872	872
0	795	795
0	883	883
0	942	942
1	0	0
0	897	897
0	742	742

0	810	810
0	765	765
0	893	893
0	775	775
0	953	953
0	960	960
0	777	777
0	810	810
0	808	808
0	818	818
0	905	805
0	1017	917
0	1050	950
0	1028	928
0	1013	913
0	687	587

0	1100	1000
0	1037	937
0	978	878
0	995	895
0	1075	975
0	1058	958
0	830	830
0	1037	937
0	960	860
0	955	855
0	962	862
0	1005	905
0	873	773
0	1047	947
0	1030	930
0	1067	967

0	905	805
0	1022	922
0	1027	927
0	1062	862
0	1040	840
0	1085	885
1	0	0
0	1097	897
0	972	772
0	1200	1000
0	1077	877
0	965	765
0	955	755
0	960	760
0	1077	877
0	865	765

0	1037	837
0	1188	988
0	1078	878
0	937	737
0	1085	885
1	0	0
1	0	0
0	1100	900
0	1190	990
0	1023	823
0	1103	903
0	980	780
0	1075	775
0	1272	972
0	1222	922
0	922	922

0	1270	970
0	850	550
0	1300	1000
0	1213	913
0	1200	900
0	1185	885
0	1235	935
0	1255	955
0	930	730
0	1208	908
0	1200	900
0	1222	922
0	1073	773
0	1262	962
0	815	815
0	938	938

0	1215	915
0	1300	1000
0	1262	962
0	1220	920
0	1222	922
0	1235	835
0	1325	925
0	1213	813
0	1027	927
0	1368	968
0	1203	803
0	1400	1000
0	1202	802
0	1290	890
1	0	0
0	1348	948

0	1267	867
0	1040	740
0	1332	932
0	1260	860
0	1333	933
0	1262	862
0	1342	942
0	853	753
0	1047	947
1	0	0
0	1400	1000
0	1365	965
0	1273	873
1	0	0
1	0	0
0	1430	930

0	1468	968
0	1105	905
0	1418	918
0	1100	600
0	1500	1000
0	1460	960
0	1293	793
0	775	775
0	1463	963
0	1425	925
1	0	0
0	1438	938
0	1170	670
0	1403	903
0	1270	770
0	1408	908

0	1063	863
0	1170	970
0	865	865
0	1500	1000
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0	1423	923
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0	532	532
0	1313	813
0	1433	933
0	997	697
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0	1365	865

800	900	0
955	1455	0
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0	0	1
823	1323	0
688	1188	0
0	0	1
842	1342	0
0	0	1
875	1175	0
683	983	0
0	0	1
988	1488	0
0	0	1
787	1287	0
882	982	0

0	1032	932
0	1463	963
0	1475	975
0	1380	980
0	983	983
0	1273	773
0	1500	1000
0	1470	970
0	1480	980
0	860	660
0	1478	978
0	1485	985
1	0	0
0	1470	970
1	0	0
0	975	975

0	1295	795
1	0	0
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0	1378	978
0	970	970
0	1492	992
0	877	877
0	1472	972
1	0	0
1	0	0
0	1458	958
0	1405	905
0	1333	833
0	1013	913
0	1265	765
0	1485	985

0	1450	950
0	1110	610
0	983	683
0	1275	775
0	1148	648
0	870	870
0	1470	970
0	923	923
0	1063	963
0	1063	563
0	910	910
1	0	0
0	1375	875
0	998	898
0	1433	933
0	973	873

0	1443	943
0	670	670
0	887	887
0	1450	950
0	1447	947
0	1387	887
0	1173	973
0	1358	858
0	1500	1000
0	1447	947
0	1405	905
0	1157	757
0	1237	737
0	1432	932
0	902	802
0	1392	892

858	958	0
942	1142	0
843	1343	0
913	1013	0
758	758	0
875	1375	0
867	1067	0
1000	1500	0
883	1083	0
767	1267	0
810	910	0

Current Total Score (points)	Answer Time (%)
795	41.00%
888	22.33%
888	22.33%
923	15.33%
910	18.00%
760	48.00%
1000	1.00%
827	34.67%
872	25.67%
795	41.00%
883	23.33%
942	11.67%
0	0.00%
897	20.67%
742	51.67%

38.00%
47.00%
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45.00%
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8.00%
44.67%
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38.33%
36.33%
39.00%
16.67%
10.00%
14.33%
17.33%
82.67%

2100	1.33%
1864	12.67%
1850	24.33%
1790	21.00%
1958	5.00%
2000	8.33%
830	34.00%
1934	12.67%
1702	28.00%
1765	29.00%
1727	27.67%
1898	19.00%
1648	45.33%
2000	10.67%
1990	14.00%
1844	6.67%

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45.67%
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49.00%
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47.00%

2971	32.67%
2890	2.33%
2843	24.33%
2664	52.67%
2983	23.00%
1648	69.33%
2000	31.33%
3090	20.00%
3034	2.00%
2738	35.33%
2933	19.33%
2825	44.00%
3837	45.00%
4217	5.67%
4245	15.67%
2873	15.67%

4290	6.00%
3269	90.00%
4600	0.67%
4154	17.33%
4015	20.00%
3930	23.00%
4153	13.00%
4332	9.00%
2625	54.00%
4179	18.33%
4090	20.00%
4065	15.67%
3737	45.33%
4245	7.67%
2463	37.00%
2938	12.33%

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6926	6.33%
5005	19.00%
7076	16.33%
5572	80.00%
7500	0.67%
6816	8.00%
6598	41.33%
4705	45.00%
6964	7.33%
7024	15.00%
3665	100.00%
6949	12.33%
6520	66.00%
6801	19.33%
6269	46.00%
6995	18.33%

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5605	40.00%
8419	9.00%
8387	27.33%
3665	44.33%
8272	35.33%
7708	62.33%
6801	10.00%
7611	31.67%
6995	7.33%
5554	25.00%
6138	63.33%
5170	49.67%
8722	2.33%
5365	19.67%
8136	42.67%
5844	23.67%

6636	13.67%
9748	7.33%
9834	5.00%
7382	4.00%
8059	3.33%
8020	45.33%
10500	0.33%
9713	6.00%
9443	4.00%
6465	68.00%
9897	4.33%
9872	3.00%
3665	65.33%
9742	6.00%
7708	46.33%
7776	5.00%

8906	41.00%
6995	11.00%
6881	14.67%
7516	4.33%
6140	6.00%
10214	1.67%
6242	24.67%
9608	5.67%
5844	44.67%
6636	4.50%
11206	8.50%
11239	19.00%
8715	33.50%
9072	17.50%
9285	47.00%
11985	3.00%

11163	10.00%
10553	78.00%
7448	63.50%
11172	45.00%
11020	70.50%
4535	26.00%
11212	6.00%
8631	15.50%
8839	7.50%
9969	87.50%
7905	18.00%
6881	66.00%
8891	25.00%
7138	20.50%
11647	13.50%
7215	25.50%

11051	11.50%
6514	66.00%
7523	22.67%
12656	10.00%
12686	10.67%
10102	22.67%
10245	5.33%
10643	28.33%
13485	0.33%
12610	10.67%
11958	19.00%
8605	48.67%
12409	52.67%
12452	13.67%
5437	39.67%
12604	21.67%

9589	28.33%
9981	11.67%
11312	31.33%
8918	17.33%
7639	48.33%
10266	25.00%
8205	26.67%
13147	1.00%
8298	23.33%
12318	46.67%
7424	38.00%

Answer Time (seconds)	
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9,6 6,9 12,9 6,2 13,7 0,3 7,4 14,1 14,7 14,4 7,4	4,4
6,9 12,9 6,2 13,7 0,3 7,4 14,1 14,7 14,4 7,4	8,3
12,9 6,2 13,7 0,3 7,4 14,1 14,7 14,4	9,6
6,2 13,7 0,3 7,4 14,1 14,7	6,9
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12,4 13,5 2,2 4,5 30 3,7 19,8 5,8	0,2
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14,1 5,2 1,2 3,1 1,5 17,5 3,6 13,2 5 4,1 2,7	12,7
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17,5 3,6 13,2 5 4,1	3,1
3,6 13,2 5 4,1 2,7	1,5
13,2 5 4,1 2,7	17,5
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	4,1
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