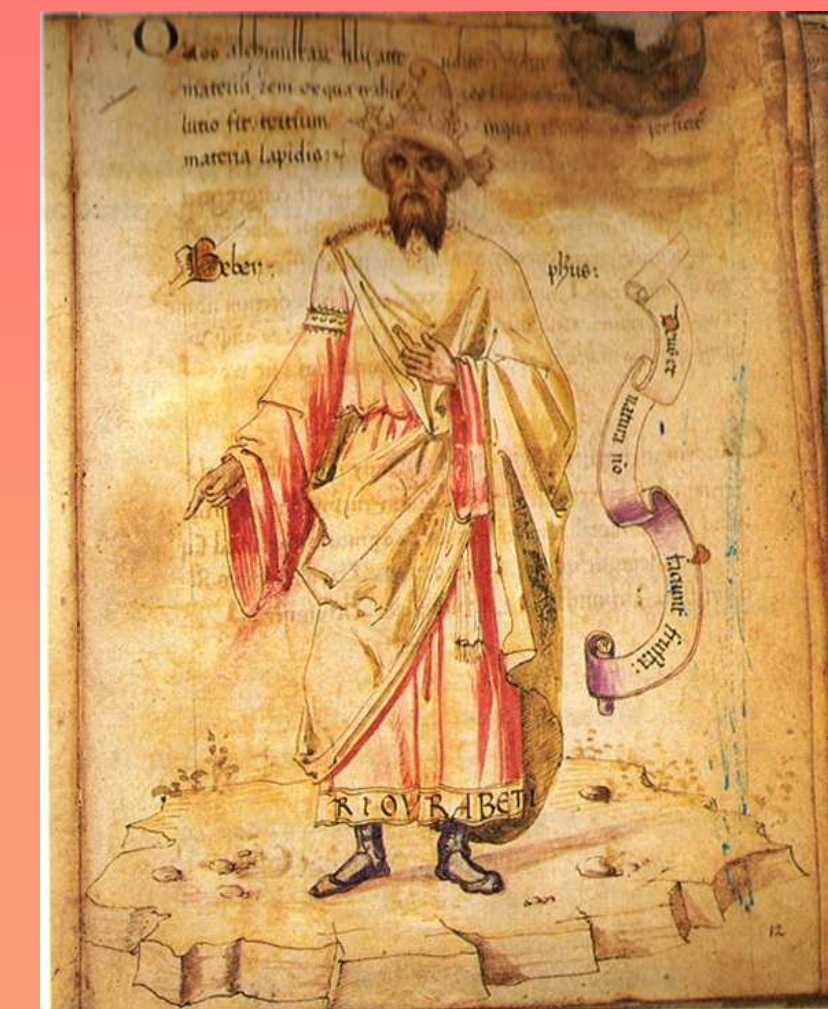
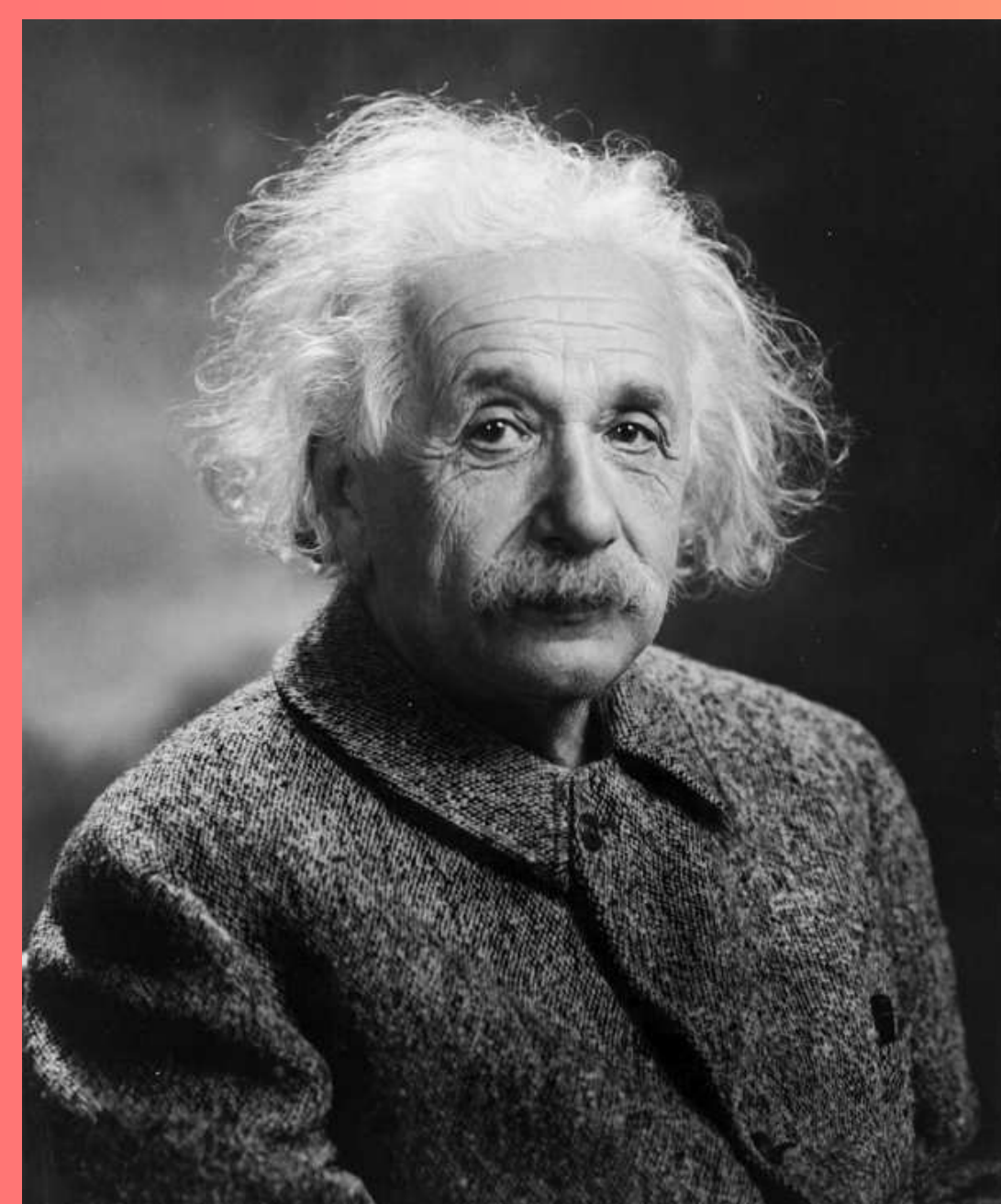
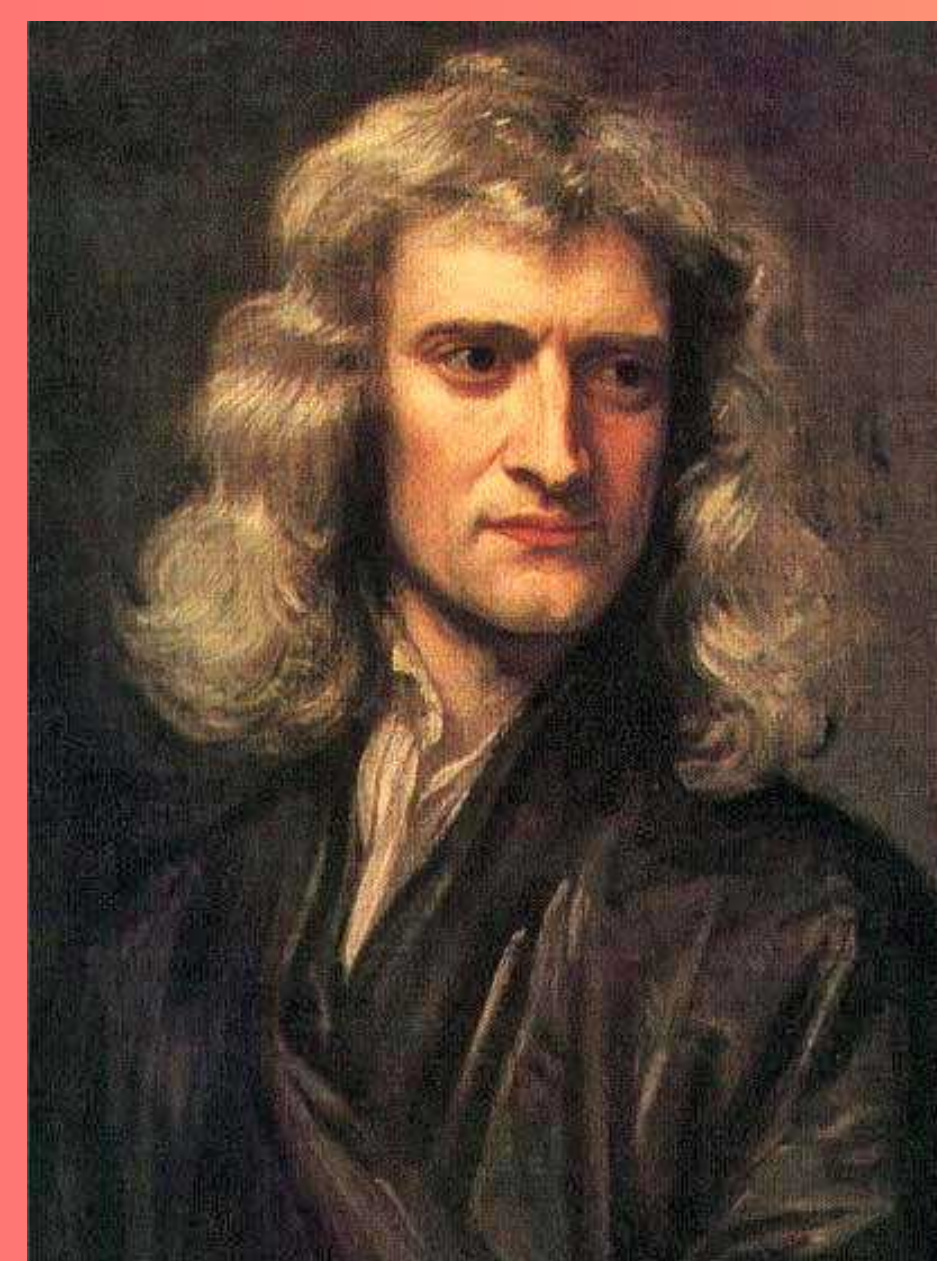




Les éléments chimiques et l'histoire, de l'age du bronze au monde moderne



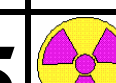
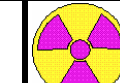
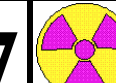
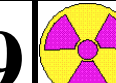
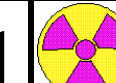
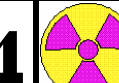
Classification périodique des éléments



Éléments connus dans la préhistoire



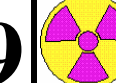
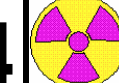
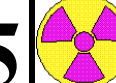
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A
Actinides

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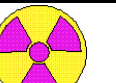
 Élément radioactif

Solide Liquide Gaz à la température ordinaire

Éléments connus dans l'antiquité



Métal Non-métal

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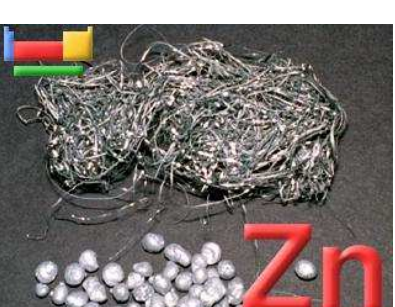
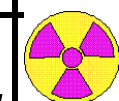
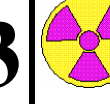
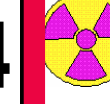
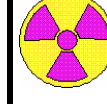
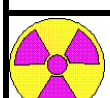
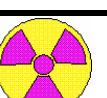
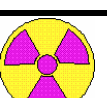
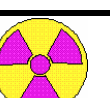
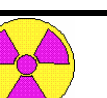
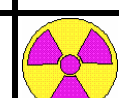
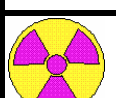
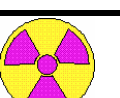
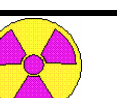
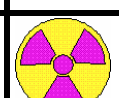
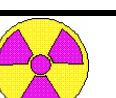
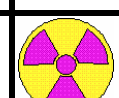
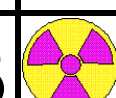
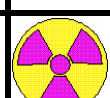
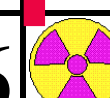
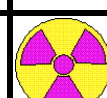
 Élément radioactif

Solide Liquide Gaz à la température ordinaire

Éléments connus au moyen age



Métal Non-métal

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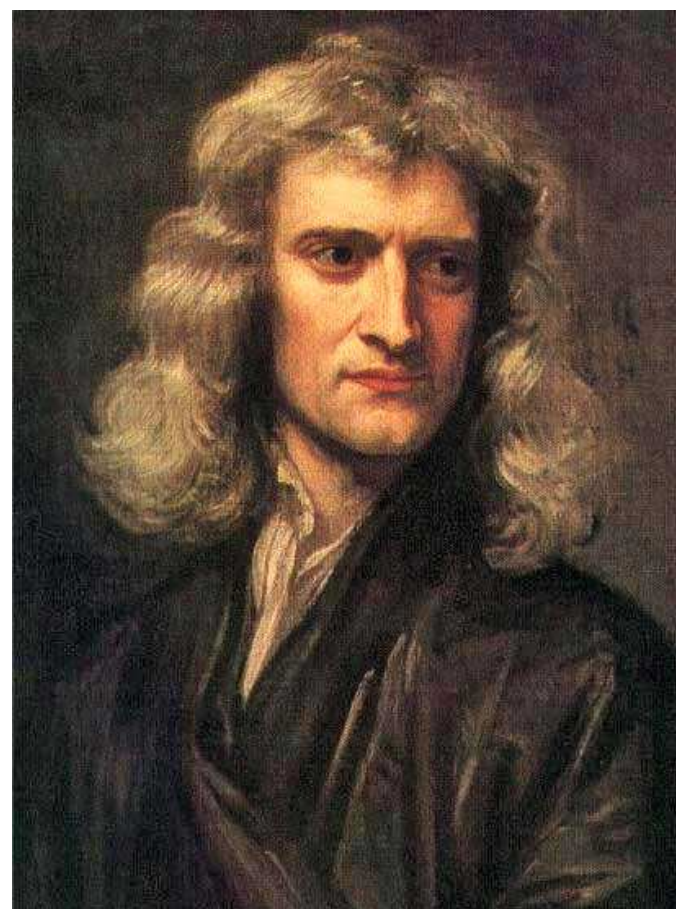
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Élément radioactif

Solide Liquide Gaz à la température ordinaire

Éléments connus en 1700

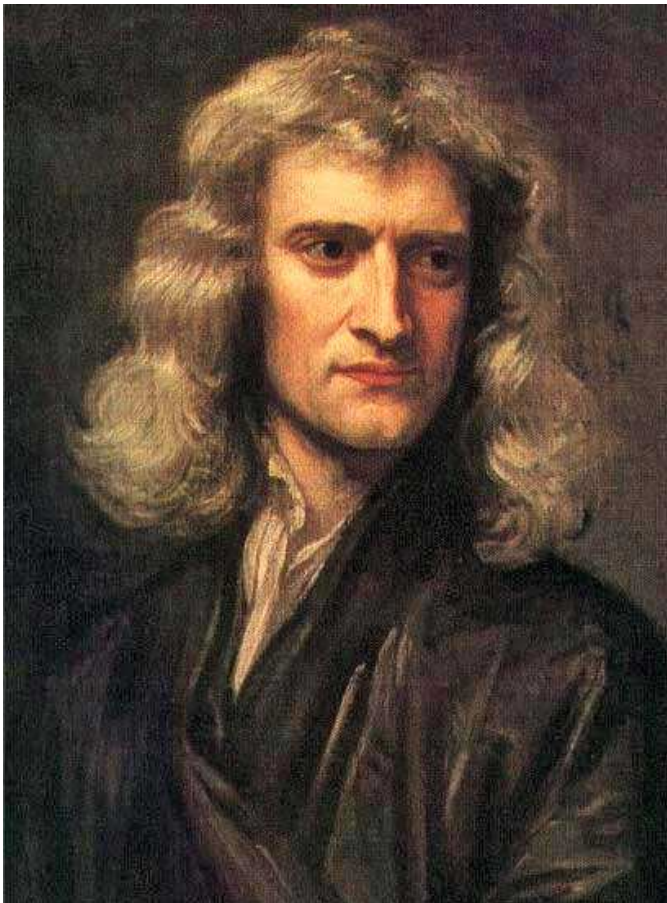
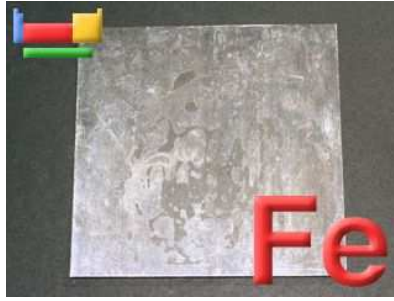
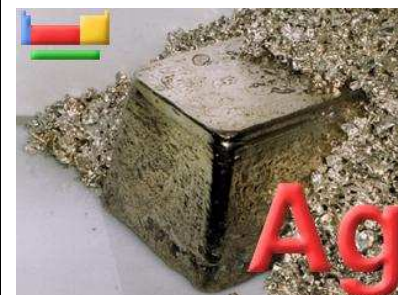
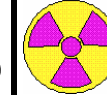
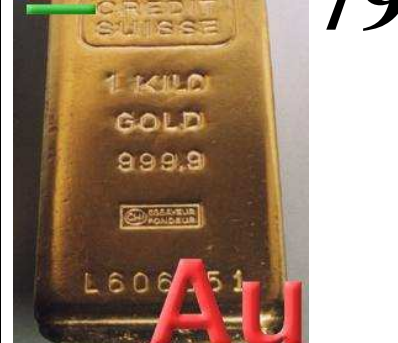
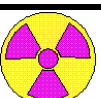
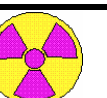
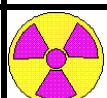
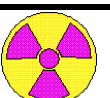
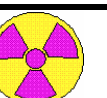
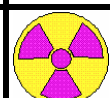
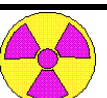
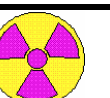
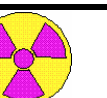
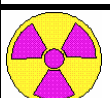
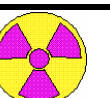
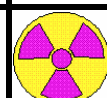
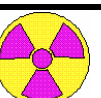
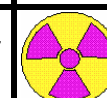
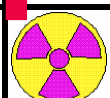


Isaac Newton



Nicolas Lémery

Métal Non-métal

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L

Lanthanides

57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
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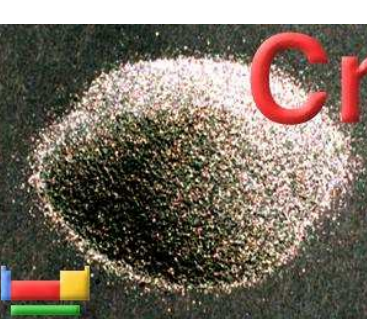
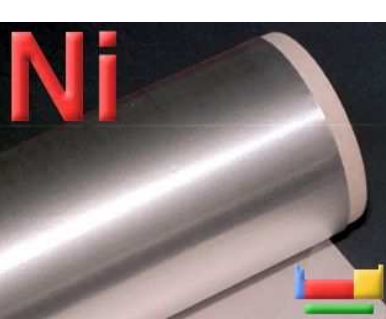
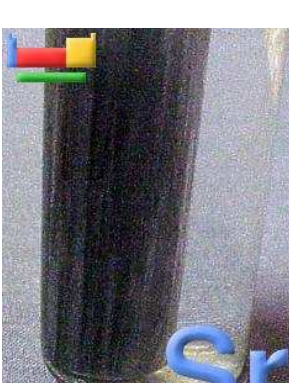
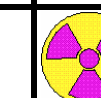
A

Actinides

89	90	91	92	93	94	95	96	97	98	99	100	101	102	103
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Élément radioactif

Solide Liquide Gaz à la température ordinaire

 H Hydrogène																		2																	
3		4  Be Béryllium																		10															
11		12  Mg Magnésium		 Amedeo Avogadro		 Antoine de Lavoisier																18													
19		20		21  Ti Titane		23		24  Cr Chrome		25  Mn Manganèse		26  Fe Fer		27  Co Cobalt		28  Ni Nickel		29  Cu Cuivre		30  Zn Zinc		31		32  As Arsenic		33		34		35		36			
37  Sr Strontium		38		39  Y Yttrium		40  Zr Zirconium		41		42  Mo Molybdène		43 		44		45		46		47  Ag Argent		48		49		50  Sn Étain		51  Sb Antimoine		52  Te Tellure		53		54	
55  Ba Baryum		56		57-71		72		73  W Tungstène		74		75		76		77		78  Pt Platine		79  Au Or		80  Hg Mercure		81		82  Pb Plomb		83  Bi Bismuth		84 		85 		86 	
87 		88 		89-103		104 		105 		106 		107 		108 		109 		110 		111 		112 		113 		114 		115 		116 		117 		118 	

	57	58	59	60 	61	62	63	64	65	66	67	68	69	70	71
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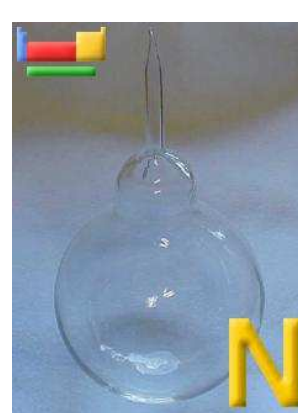
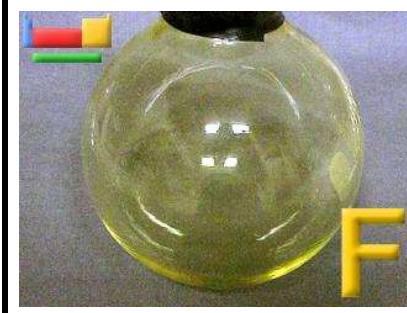
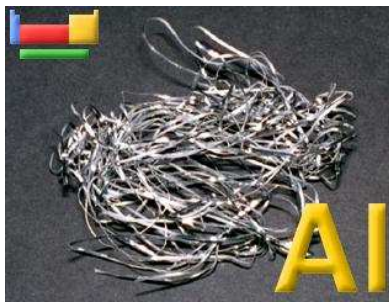
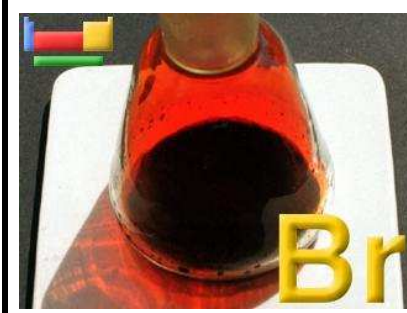
	89 	90 	91 	92  Uranium	93 	94 	95 	96 	97 	98 	99 	100 	101 	102 	103 
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 Élément radioactif

Solide Liquide Gaz à la température ordinaire



Métal | Non-métal

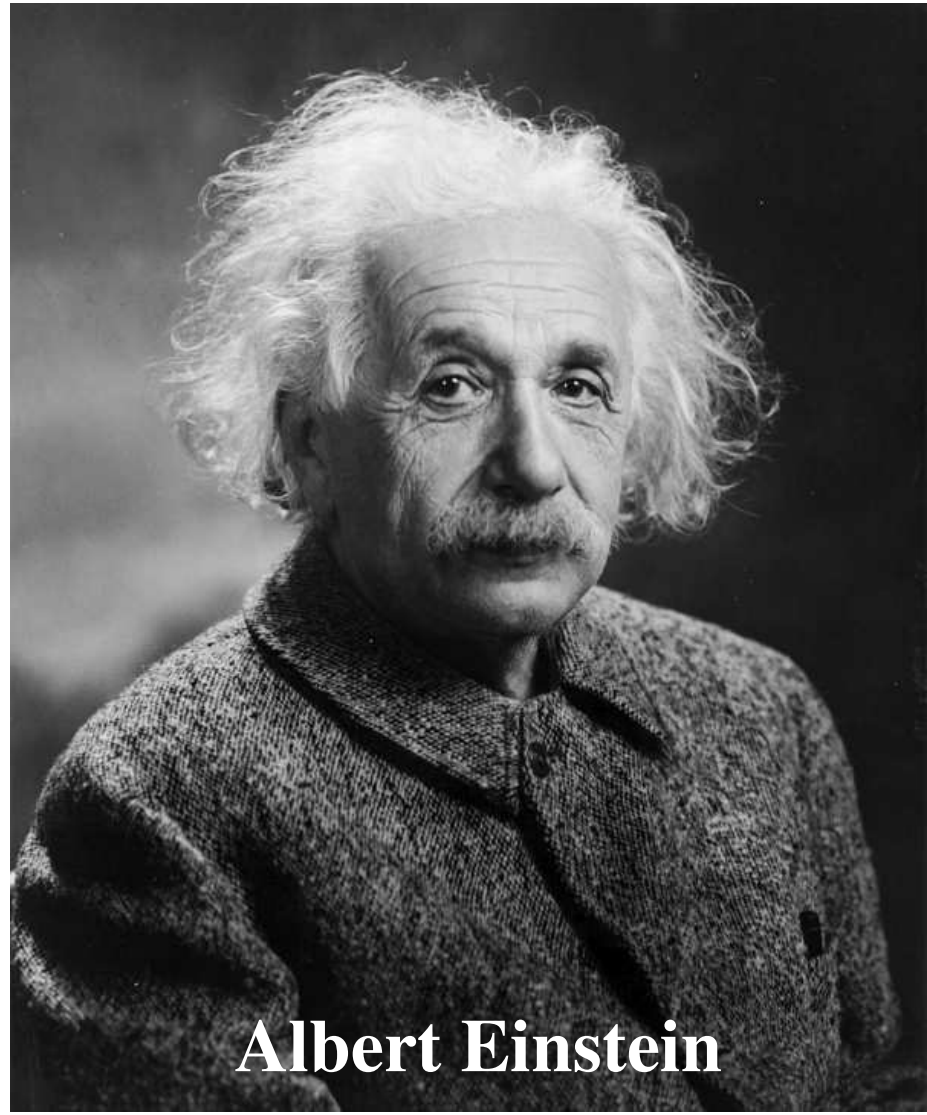
	5	6	7	8	9	10
	 Bore B	 Carbone C	 Azote N	 Oxygène O	 Fluor F	
	13	14	15	16	17	18
	 Aluminium Al	 Silicium Si	 Phosphore P	 Soufre S	 Chlore Cl	
0	31	32	33	34	35	36
			 Arsenic As	 Sélénium Se	 Brome Br	
8	49	50	51	52	53	54
	 Étain Sn	 Antimoine Sb	 Tellure Te	 Iode I		

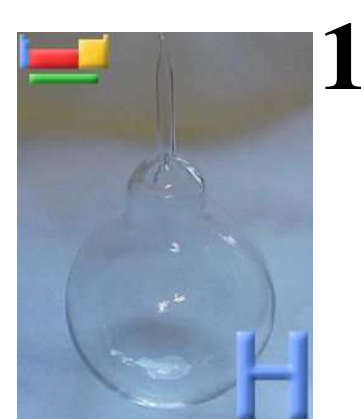
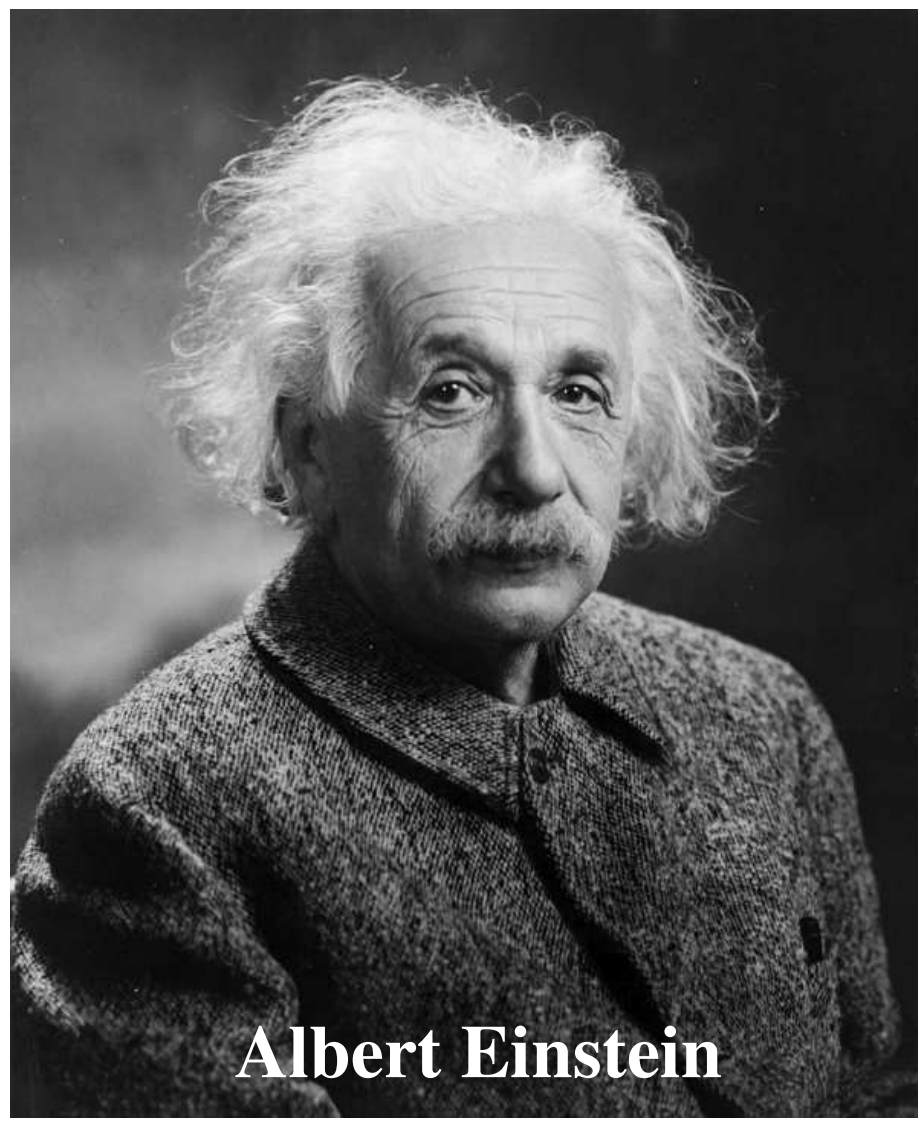
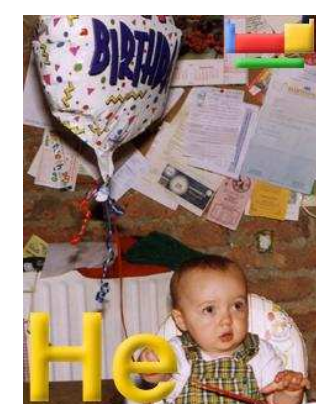
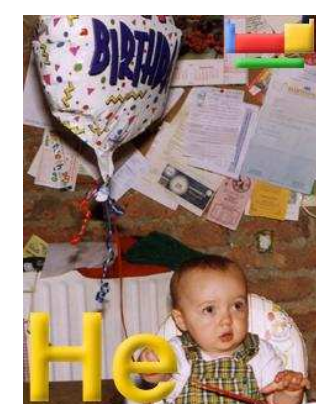
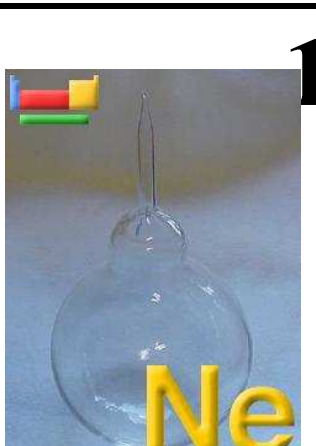
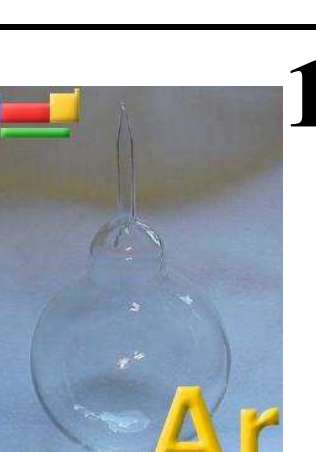
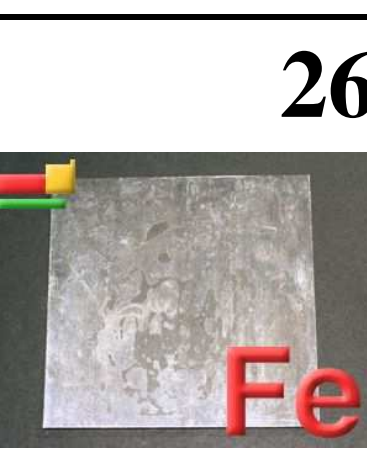
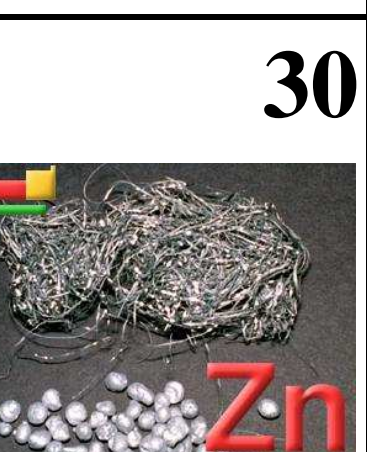
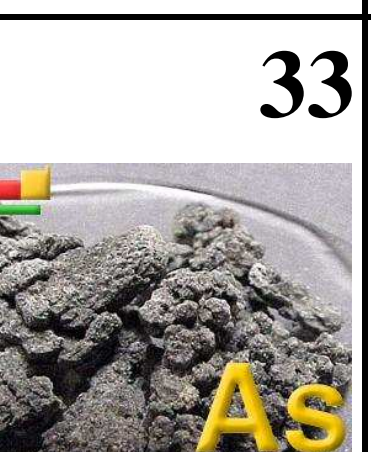
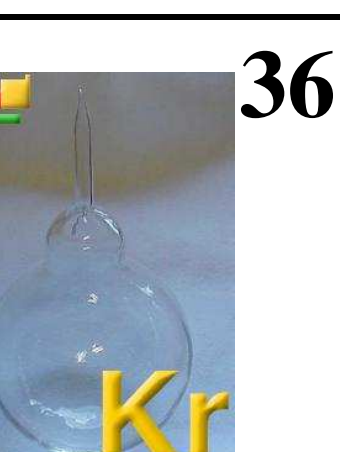
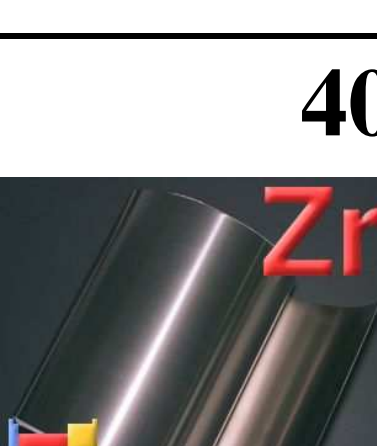
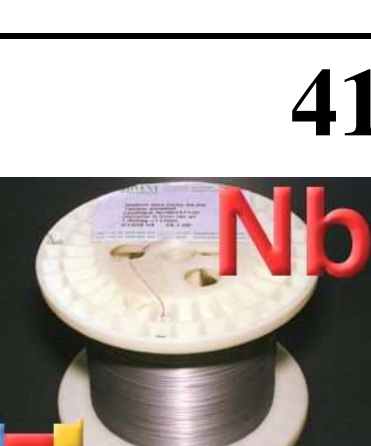
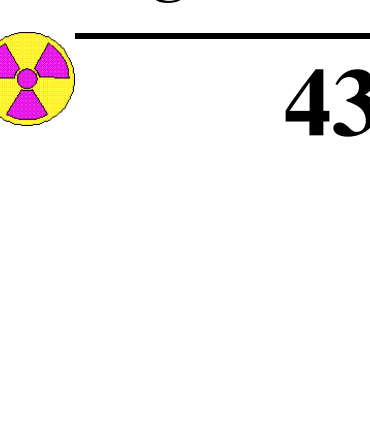
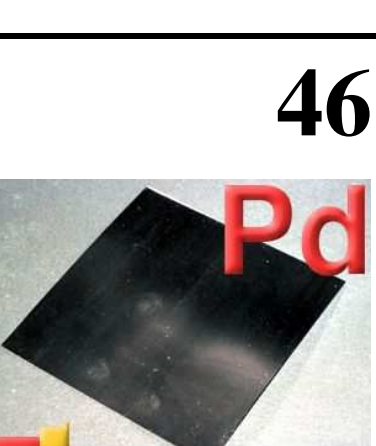
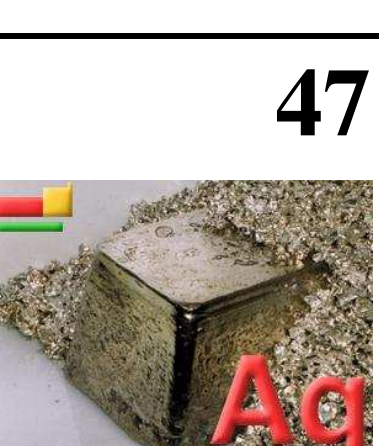
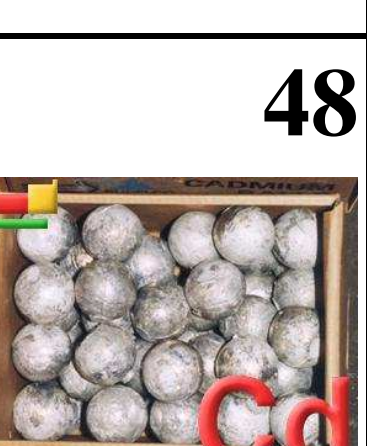
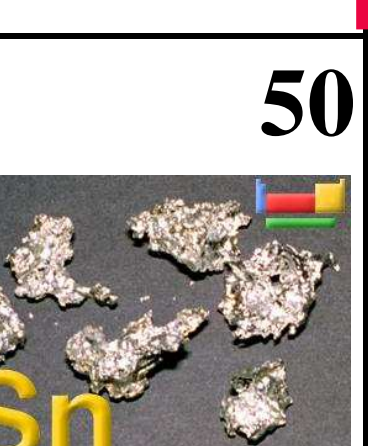
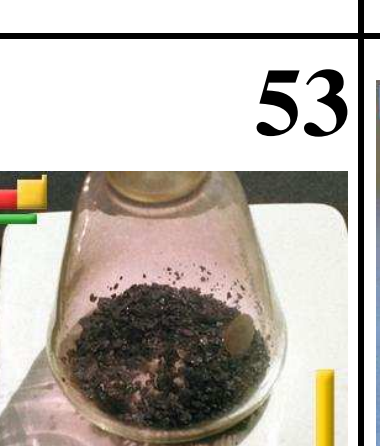
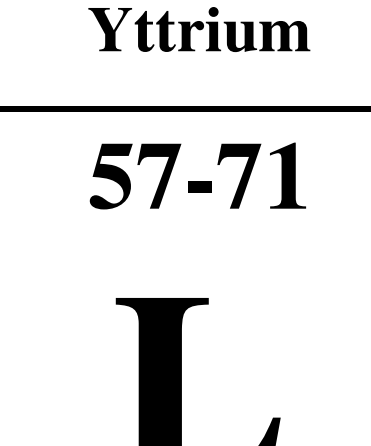
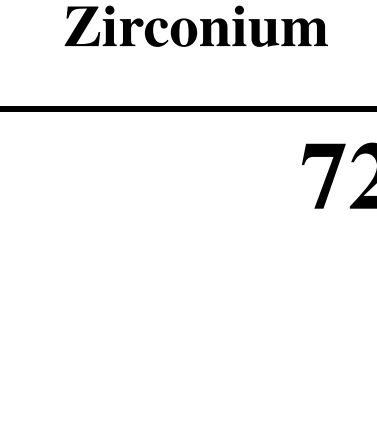
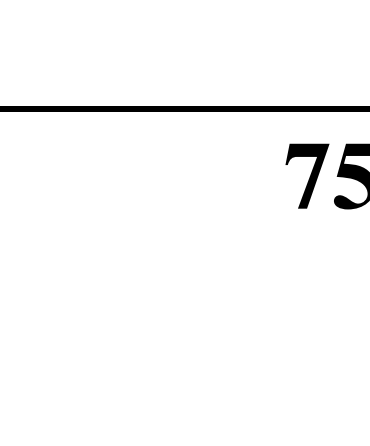
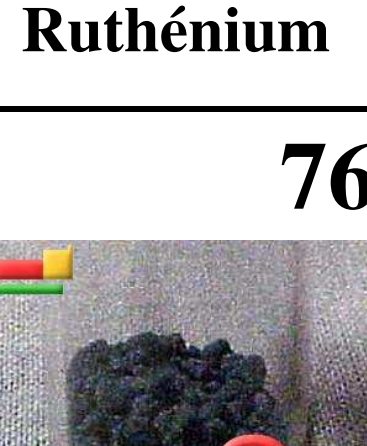
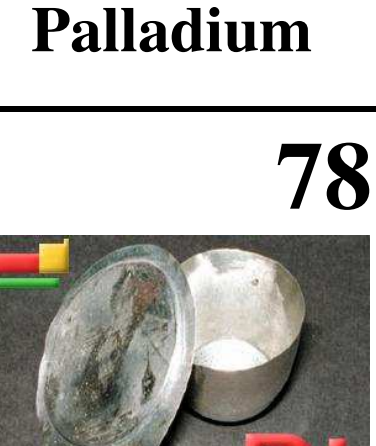
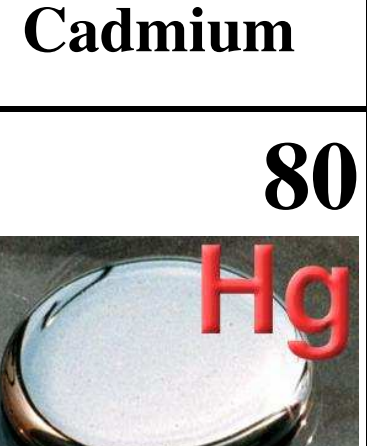
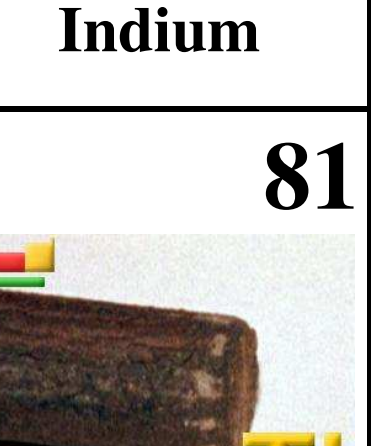
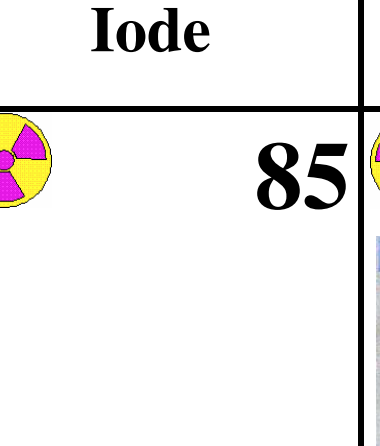
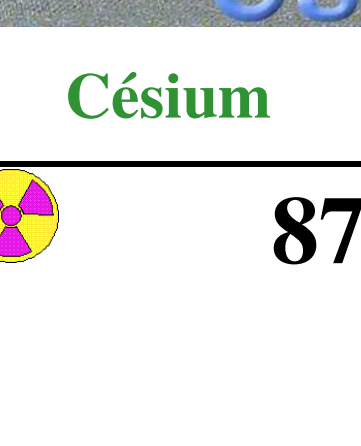
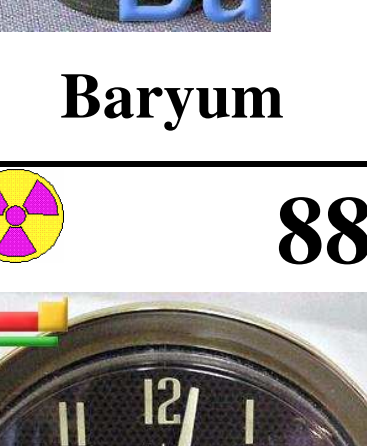
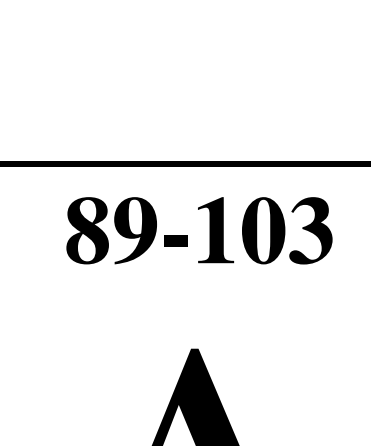
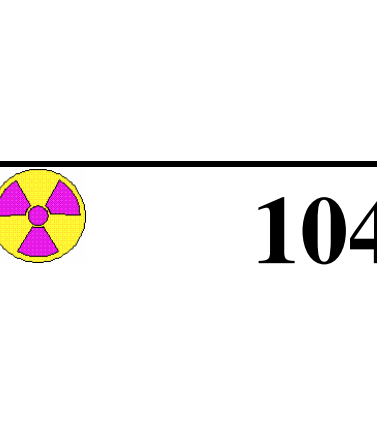
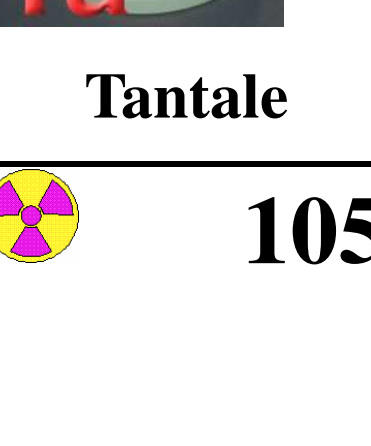
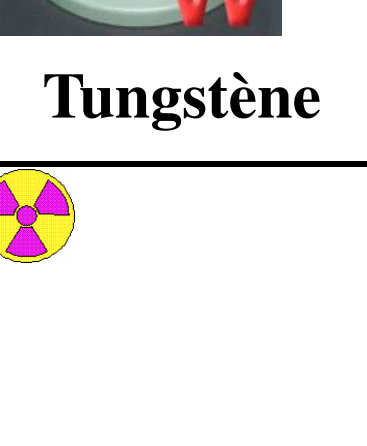
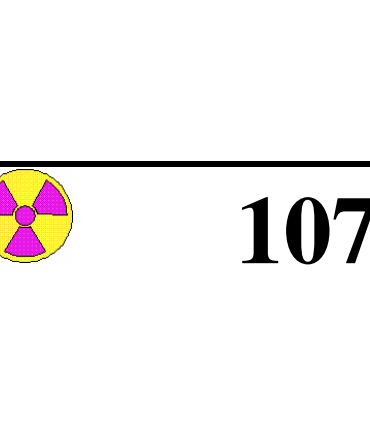
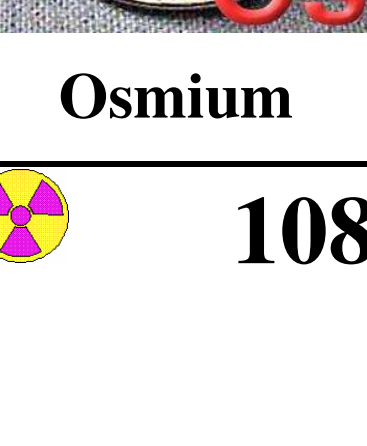
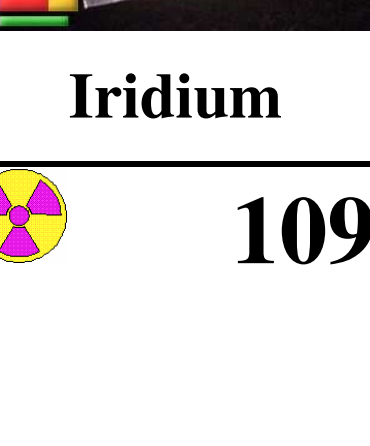
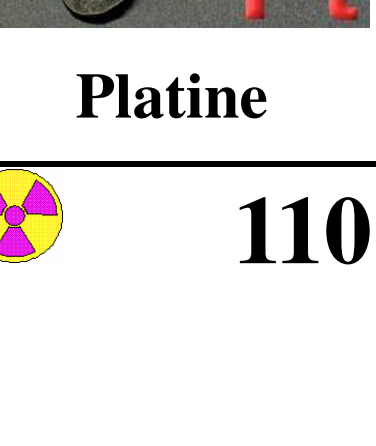
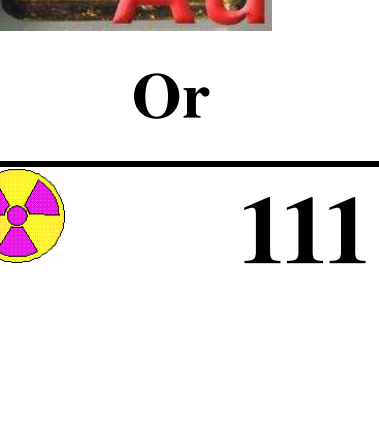
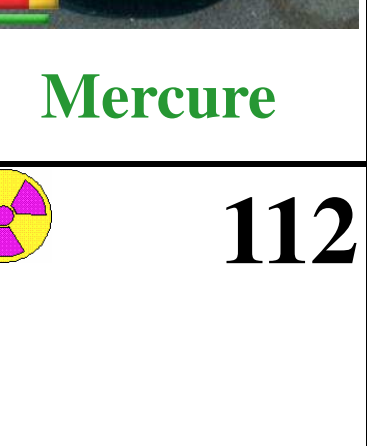
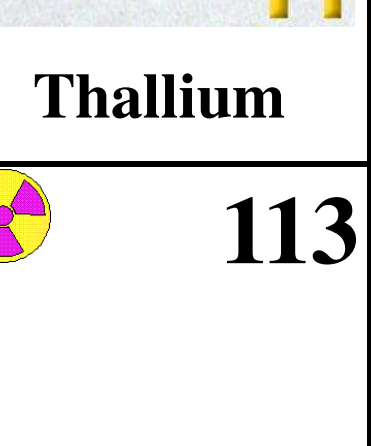
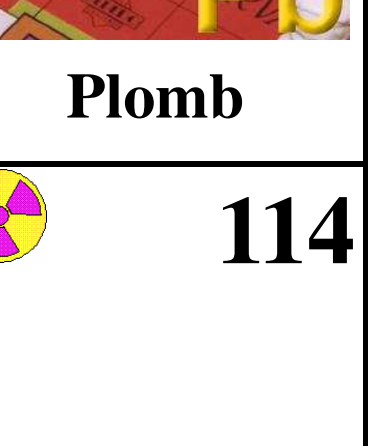
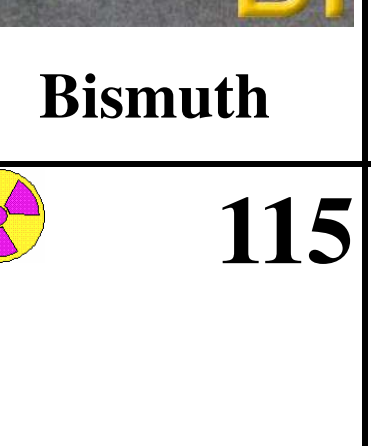
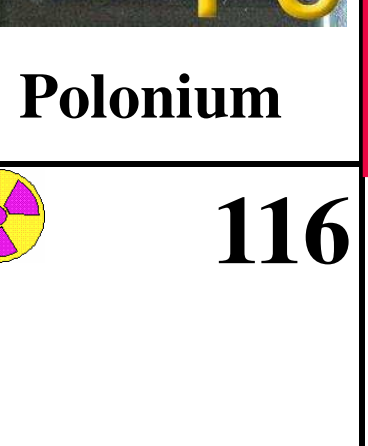
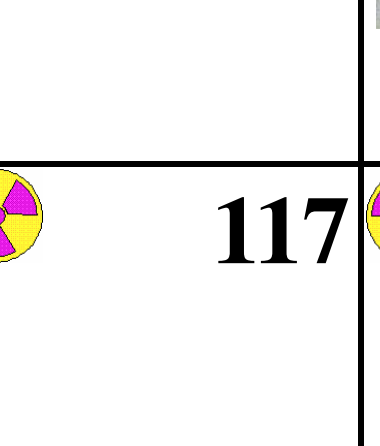
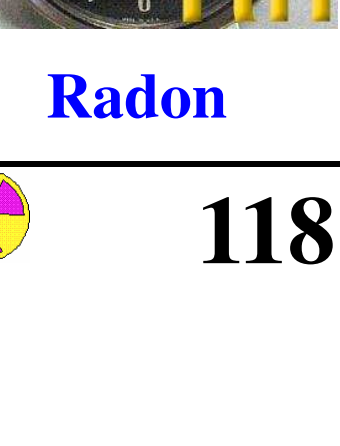
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La		Ce								Tb			Er			
Lanthane		Cérium								Terbium			Erbium			

	89	 Th Thorium		90			91		 U Uranium		92			93			94			95			96			97			98			99			100			101			102			103	
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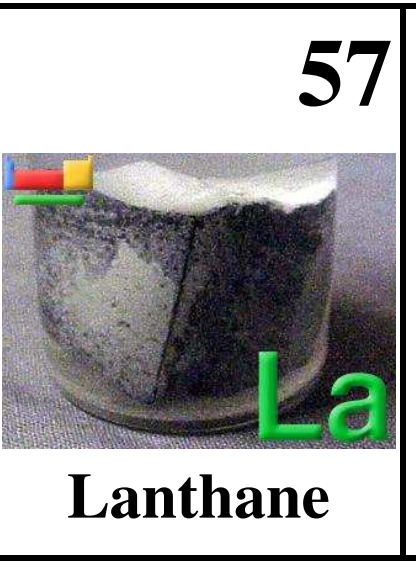
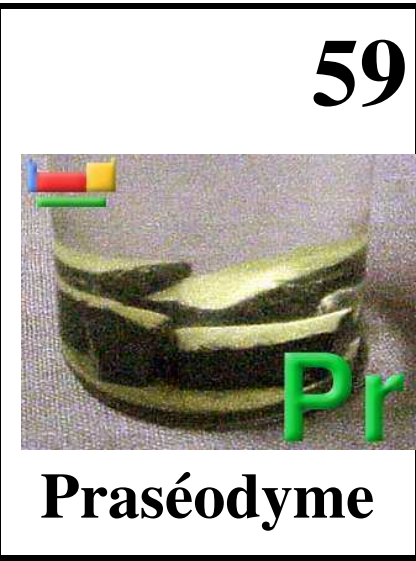
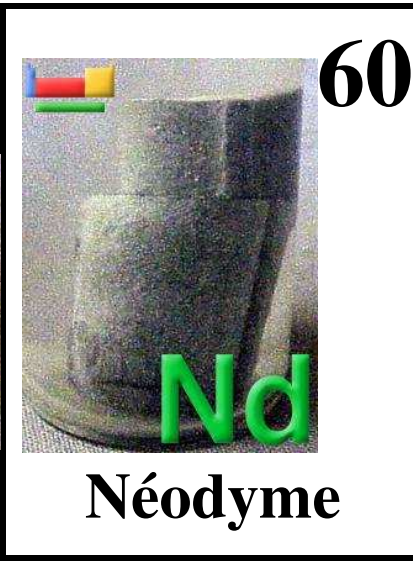
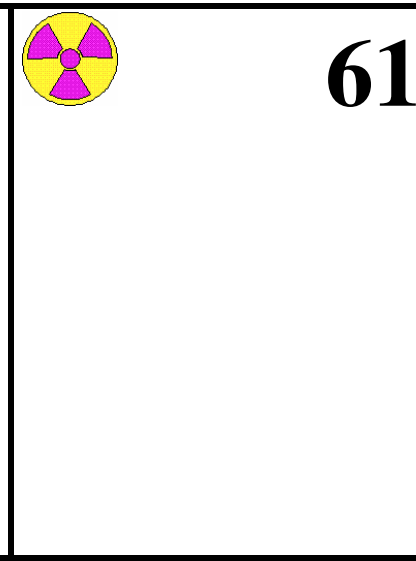
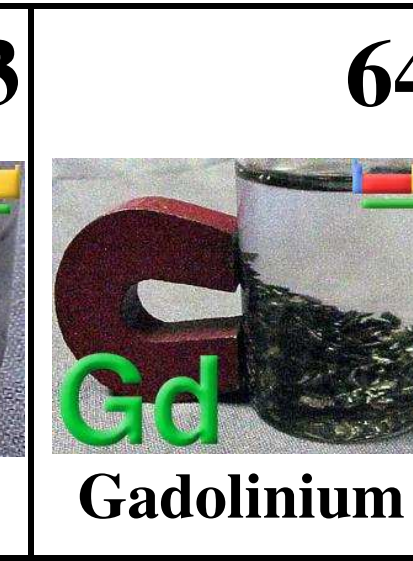
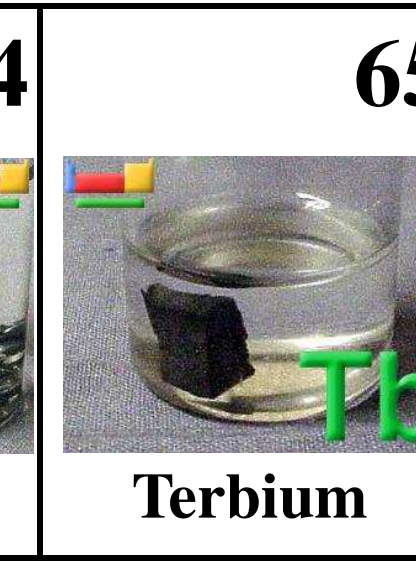
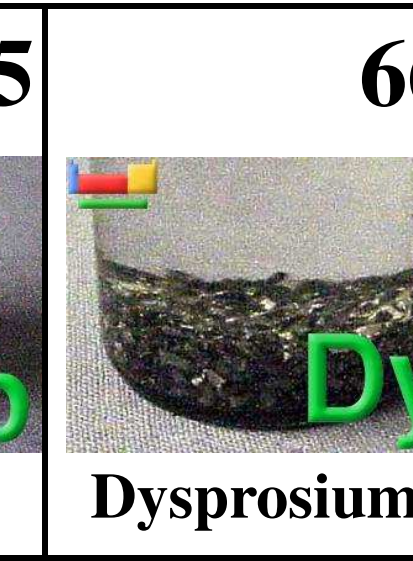
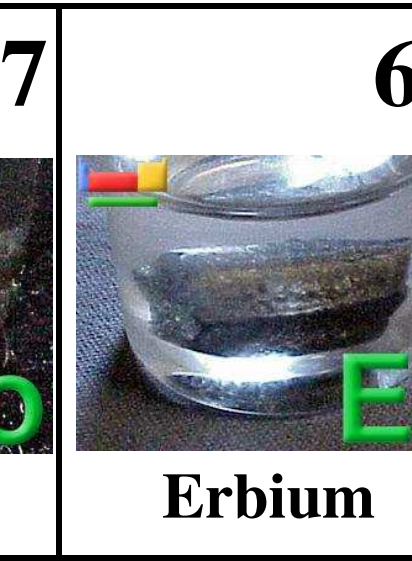
Solide Liquide Gaz à la température ordinaire

Éléments connus en 1900

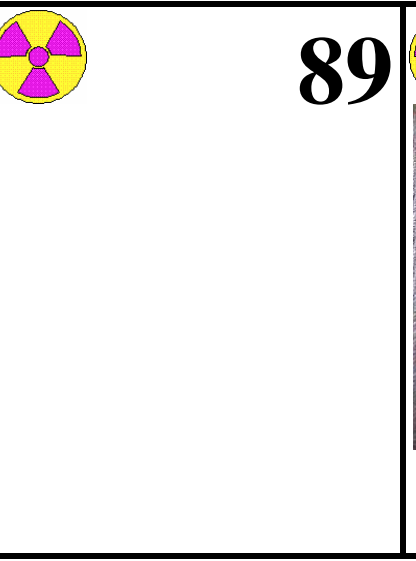
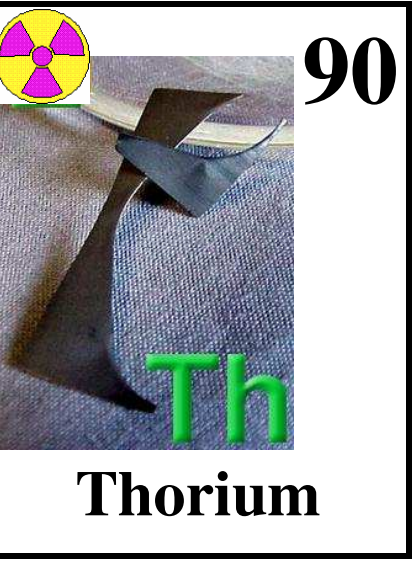


 1 Hydrogène		Éléments connus en 1900  Albert Einstein  Marie Curie <td> Métal Non-métal </td> <td>  2 Hélium </td>																Métal Non-métal	 2 Hélium
 3 Lithium	 4 Beryllium																	 10 Néon	
 11 Sodium	 12 Magnésium																	 18 Argon	
 19 Potassium	 20 Calcium	 21 Scandium	 22 Titane	 23 Vanadium	 24 Chrome	 25 Manganèse	 26 Fer	 27 Cobalt	 28 Nickel	 29 Cuivre	 30 Zinc	 31 Gallium	 32 Germanium	 33 Arsenic	 34 Sélénium	 35 Brome	 36 Krypton		
 37 Rubidium	 38 Strontium	 39 Yttrium	 40 Zirconium	 41 Niobium	 42 Molybdène	 43 Ruthénium	 44 Rhodium	 45 Palladium	 46 Argent	 47 Cadmium	 48 Indium	 49 Étain	 50 Antimoine	 51 Tellure	 52 Iode	 53 Xénon	 54 Radon		
 55 Césium	 56 Baryum	L	 72 Tantale	 73 Tungstène	 74 Osmium	 75 Iridium	 76 Platine	 77 Or	 78 Mercure	 79 Thallium	 80 Plomb	 81 Bismuth	 82 Polonium	 83 Radon	 84 Radon	 85 Radon	 86 Radon		
 87 Radium	 88 Radium	A	 89-103 Radium	 104 Radium	 105 Radium	 106 Radium	 107 Radium	 108 Radium	 109 Radium	 110 Radium	 111 Radium	 112 Radium	 113 Radium	 114 Radium	 115 Radium	 116 Radium	 117 Radium	 118 Radium	

L Lanthanides

 Lanthane	 Cérium	 Praséodyme	 Néodyme		 Samarium	 Europium	 Gadolinium	 Terbium	 Dysprosium	 Holmium	 Erbium	 Thulium	 Ytterbium	
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A Actinides

 Thorium		 Uranium															
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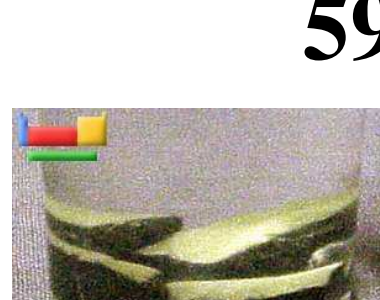
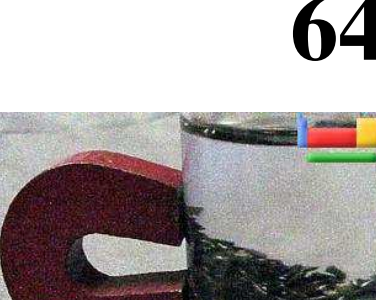
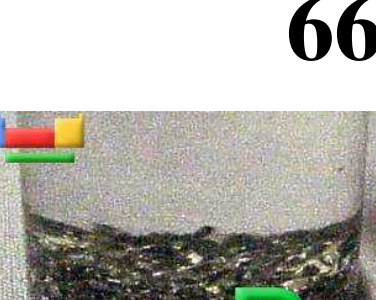
Éléments radioactifs

Solide Liquide Gaz à la température ordinaire

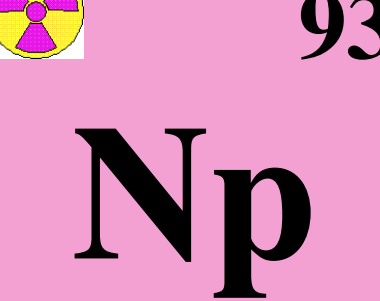
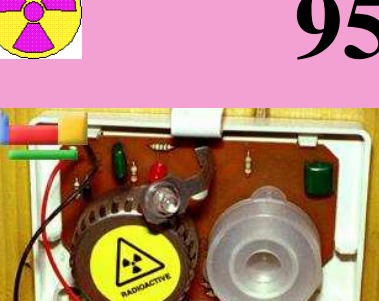
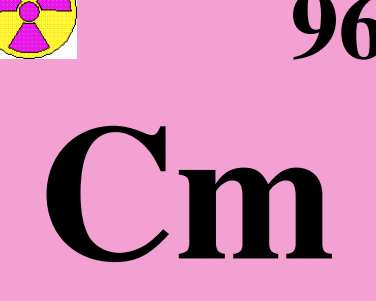
Éléments connus en 1950

1 Hydrogène		2 Hélium																			
3 Lithium		4 Béryllium	5 Bore														6 Carbone	7 Azote	8 Oxygène	9 Fluor	10 Néon
11 Sodium		12 Magnésium	13 Aluminium														14 Silicium	15 Phosphore	16 Soufre	17 Chlore	18 Argon
19 Potassium		20 Calcium	21 Scandium	22 Titane	23 Vanadium	24 Chrome	25 Manganèse	26 Fer	27 Cobalt	28 Nickel	29 Cuivre	30 Zinc	31 Gallium	32 Germanium	33 Arsenic	34 Sélénium	35 Brome	36 Krypton			
37 Rubidium	38 Strontium	39 Yttrium	40 Zirconium	41 Niobium	42 Molybdène	43 Technétium	44 Ruthénium	45 Rhodium	46 Palladium	47 Argent	48 Cadmium	49 Indium	50 Étain	51 Antimoine	52 Tellure	53 Iode	54 Xénon				
55 Césium	56 Baryum	57-71 L		72 Hafnium	73 Tantale	74 Tungstène	75 Rhénium	76 Osmium	77 Iridium	78 Platine	79 Or	80 Mercure	81 Thallium	82 Plomb	83 Bismuth	84 Polonium	85 Astate	86 Radon			
87 Francium	88 Radium	89-103 A		104	105		107	108	109	110	111	112	113	114	115	116	117	118			

L Lanthanides

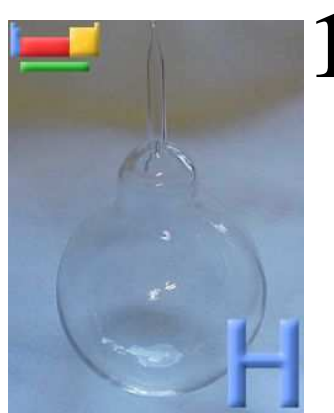
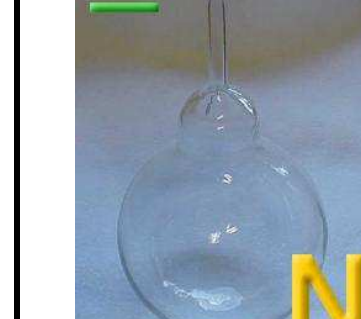
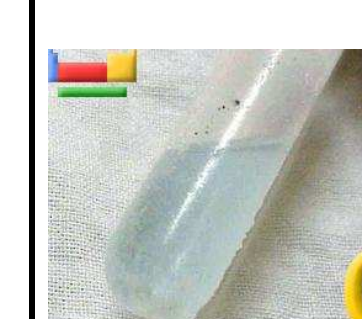
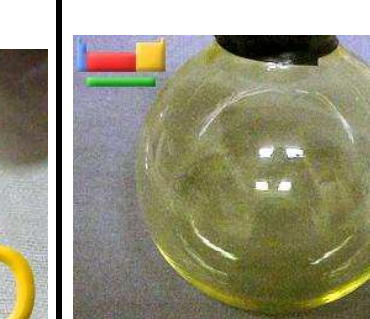
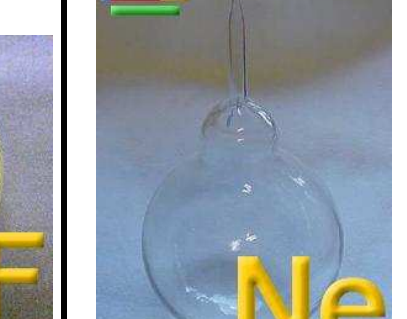
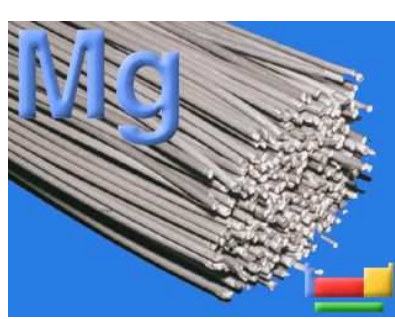
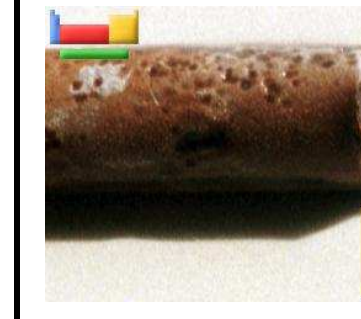
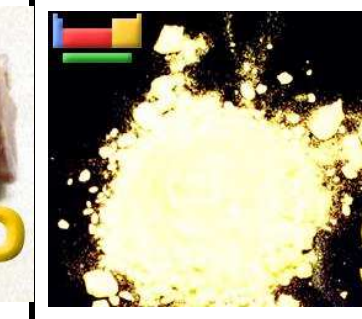
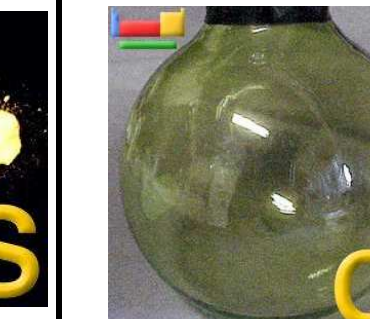
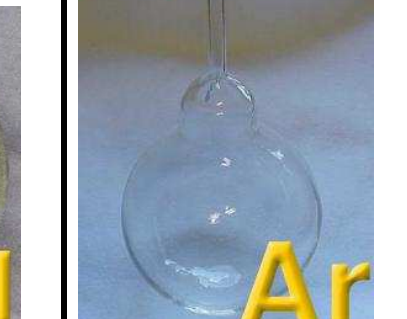
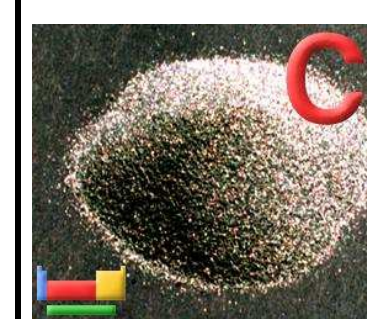
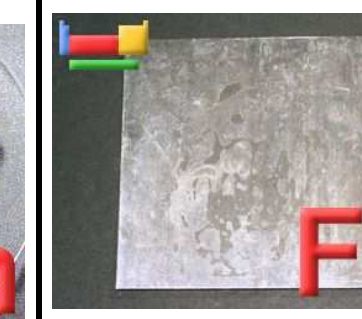
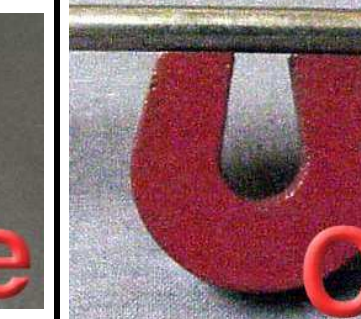
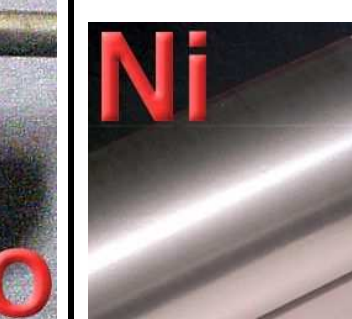
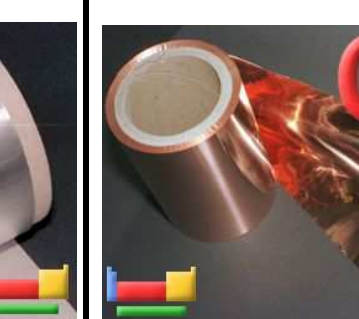
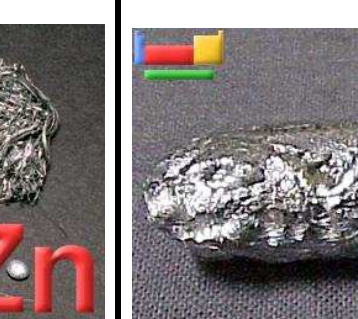
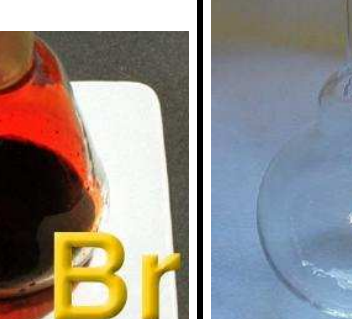
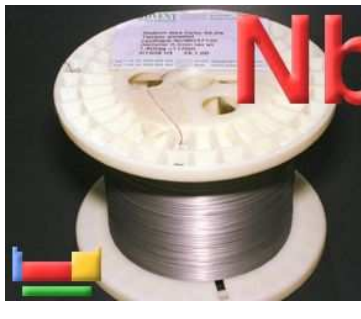
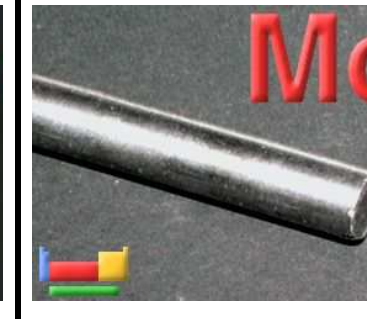
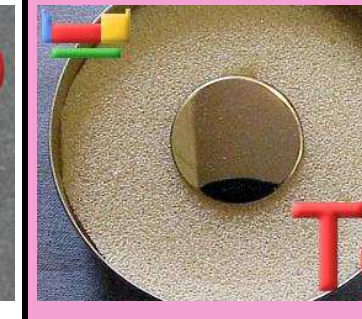
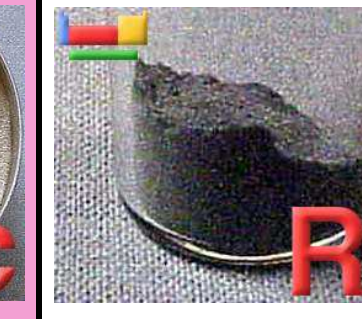
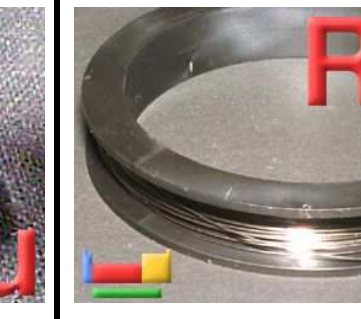
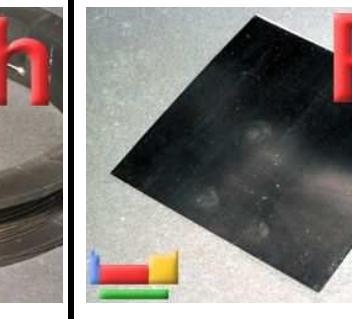
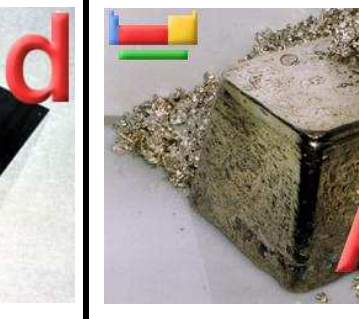
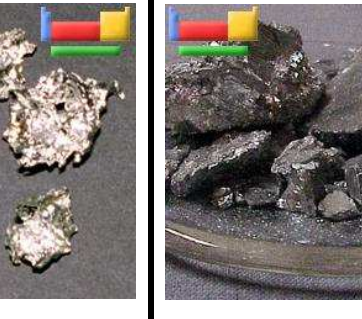
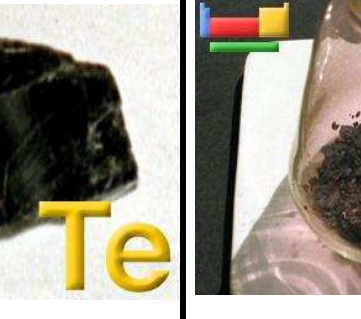
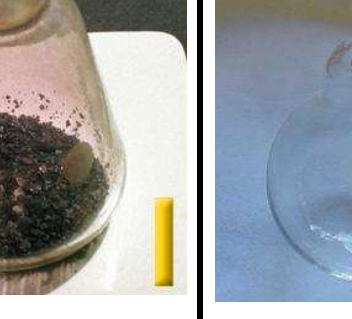
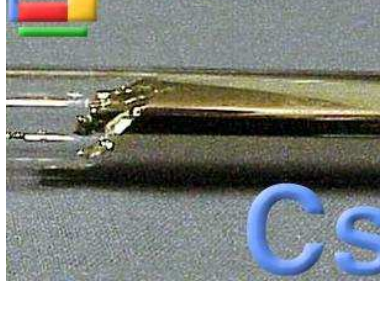
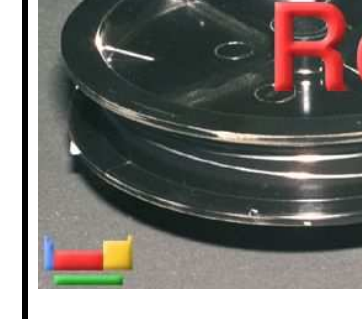
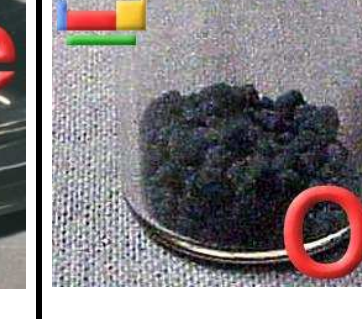
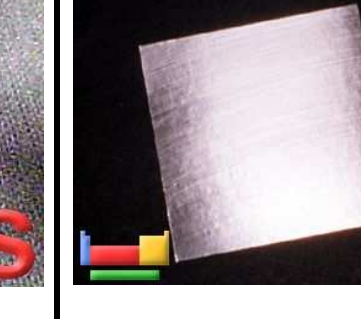
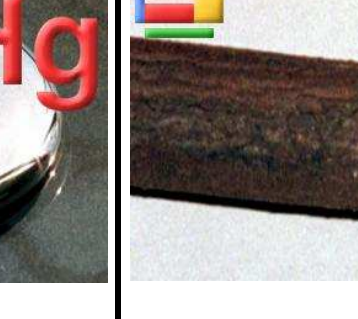
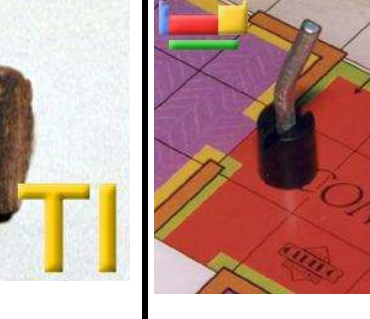
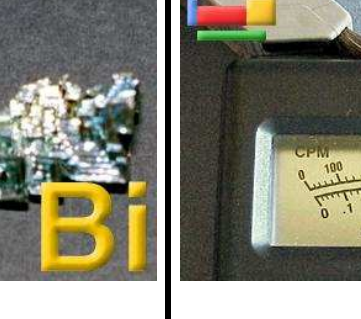
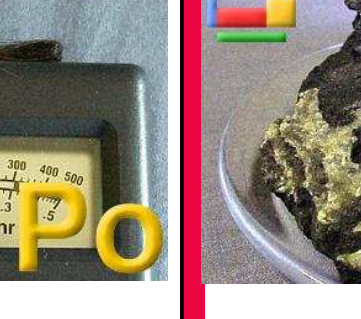
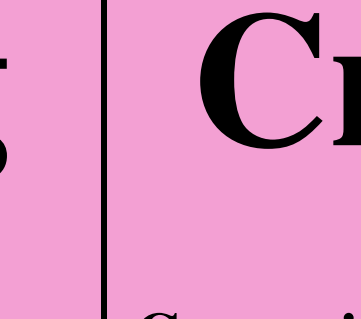
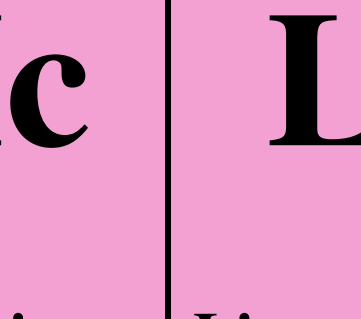
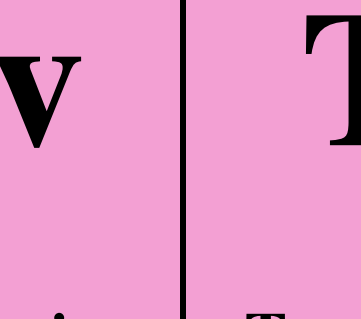
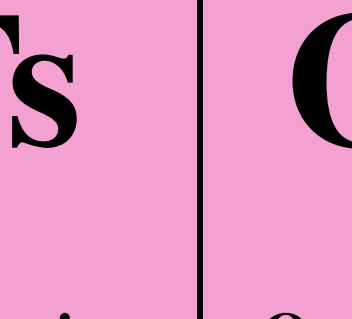
57  Lanthane	58  Cérium	59  Praséodyme	60  Néodyme	61  Prométhium	62  Samarium	63  Europium	64  Gadolinium	65  Terbium	66  Dysprosium	67  Holmium	68  Erbium	69  Thulium	70  Ytterbium	71  Lutétium
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A Actinides

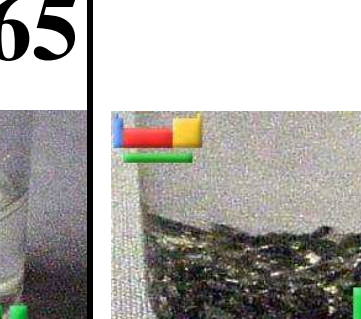
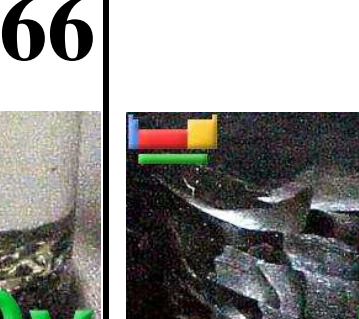
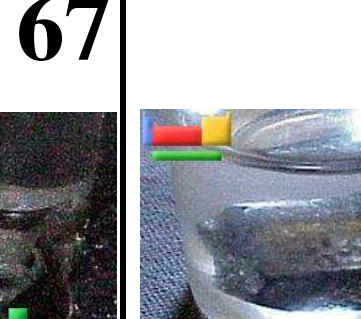
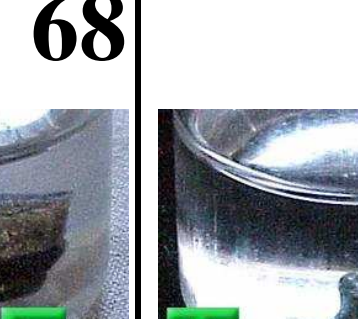
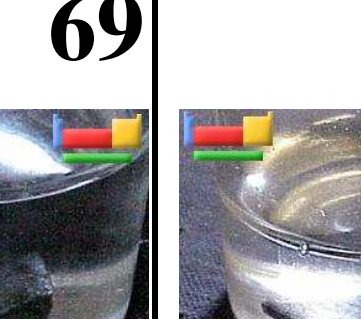
89  Actinium	90  Thorium	91  Proactinium	92  Uranium	93  Neptunium	94  Plutonium	95  Américium	96  Curium	97  Berkélium	98  Californium	99	100	101	102	103
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Éléments connus en 1950

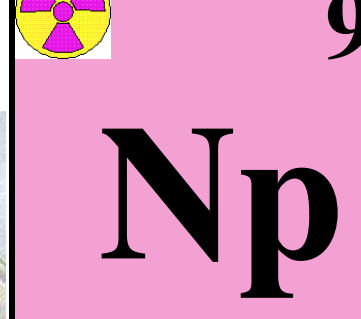
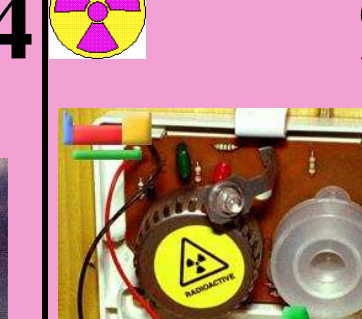
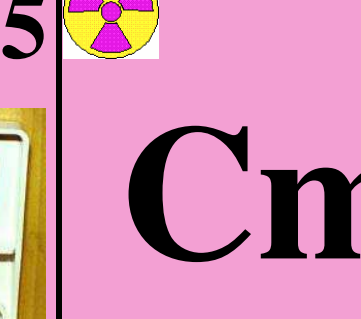
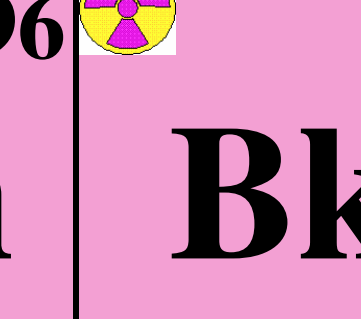
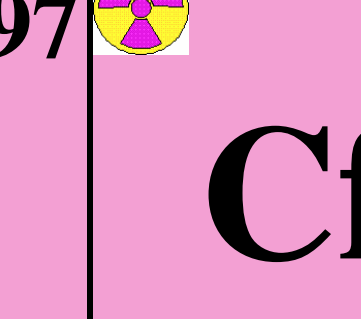
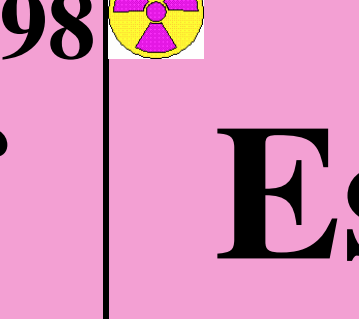
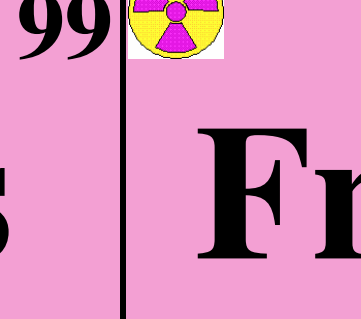
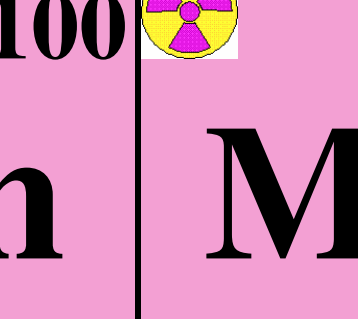
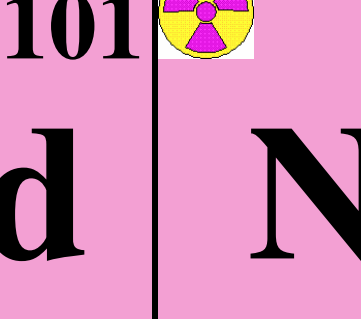
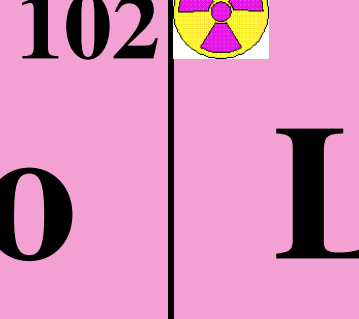
Éléments connus en 2019

Éléments connus en 2019																																			
																		Métal		Non-métal															
 Hydrogène		 Hélium																																	
 Lithium		 Béryllium										 Bore		 Carbone		 Azote		 Oxygène		 Fluor		 Néon													
 Sodium		 Magnésium												 Aluminium		 Silicium		 Phosphore		 Soufre		 Chlore		 Argon											
 Potassium		 Calcium		 Scandium		 Titane		 Vanadium		 Chrome		 Manganèse		 Fer		 Cobalt		 Nickel		 Cuivre		 Zinc		 Gallium		 Germanium		 Arsenic		 Sélénium		 Brome		 Krypton	
 Rubidium		 Strontium		 Yttrium		 Zirconium		 Niobium		 Molybdène		 Technétium		 Ruthénium		 Rhodium		 Palladium		 Argent		 Cadmium		 Indium		 Étain		 Antimoine		 Tellure		 Iode		 Xénon	
 Césium		 Baryum		L		 Hafnium		 Tantale		 Tungstène		 Rhénium		 Osmium		 Iridium		 Platine		 Or		 Mercure		 Thallium		 Plomb		 Bismuth		 Polonium		 Astate		 Radon	
 Francium		 Radium		A		 Rutherfordium		 Hahnium		 Seaborgium		 Nielsbohrium		 Hassium		 Meitneirium		 Darmstadtium		 Roentgenium		 Copernicium		 Nihonium		 Flerovium		 Moscovium		 Livermorium		 Tennesseine		 Oganesson	

L Lanthanides

 Lanthane	 Cérium	 Praséodyme	 Néodyme	 Prométhium	 Samarium	 Europium	 Gadolinium	 Terbium	 Dysprosium	 Holmium	 Erbium	 Thulium	 Ytterbium	 Lutétium
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A Actinides

 Actinium	 Thorium	 Proactinium	 Uranium	 Neptunium	 Plutonium	 Américium	 Curium	 Berkélium	 Californium	 Einsteinium	 Fermium	 Mendélévium	 Nobélium	 Lawrencium
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Éléments radioactifs

Solide Liquide Gaz à la température ordinaire

