

ХИМИЧЕСКИЕ НАУКИ

MODERN VIEW ON PERIODIC TABLE

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Breakthrough of science and the collection of actual materials which are needed for passing the next stage of development constitute natural complementary stages of scientific development.

Human brain is becoming richer with exact information on the environment that surrounds him.

Thus, Human unravels the mysteries of nature, unearths its creative principles, discovers and applies these principles in their area of creativity as a result of his own conscious attitude toward objective reality.

So, human activity is inseparably linked to nature in all fields and forms a completeness, integrity and unity with the nature as well. Human perceives, assimilates and uses original products of nature for the sake of common benefit of all creators in planet.

Many secrets of nature have been revealed by human so far. And also these are differentiating about the scope, deepness and the areas of comprehension.

In 1789 the French chemist Lavuaziye divided the elements into 4 groups-gases, non-ferrous metals, metals or earth elements.

In 1817 the German scientist Derbreyner combined similar elements in the form of groups and called them triads.

In 1864 the English scientist C.Nullends compiled a series of 7 elements consisting of increasing sequence of atomic masses and showed similar properties of each 8 elements with the 1st element in these groups. Nullends called it "Octave law", but this law handled the 1st 17 elements.

The French scientist Shankurtua spiralized elements around the cylinder of tom masses. At the same time similar elements are placed under one another.

In 1869 the German scientist Lotay Meyer compiled a bluff chart showing the dependence on such addition initially. He introduced 6 groups of similar elements.

In this regard, in 1869 a real scientific revolution was happened in the study and discovery of chemical elements. In the same year, a Russian chemist Dmitri Mendeleev discovered Periodic Law (table) of chemical element which is one of the common laws of nature. On the one hand, this Table ensured the generalization and the provision of in-depth scientific analysis of rich

but discrete information about chemical elements which had been known since that time. On the other hand, the table became a powerful compass in hands of scientists in the search of new chemical elements.

Periodic Law and Periodic System is the brightest example of dialectic logic of understanding of material world.

It has been determined that Periodic Law and Periodic System obey to not only the structure of atom electron layers but also the subtle structural system of the atomic nucleus, and the control regularities of the compound and sometimes unclear world of elementary particles have periodic character.

In the current periodic table of chemical elements, the elements are arranged according to their atomic weight like s, p, d, f. Here, sequence of emplacement of elements has been done in accordance with all current norms and validity has been kept as well. In previous tables, however, when the elements were arranged in the table, metals, non-metals and amphoteric were arranged as metals.

Along with all, we have arranged the elements both as s, p, d, f elements and metal, non-metals and amphoteric metals as a new vision to the table.

Figuratively speaking, everybody who applies to the table will have no difficulty to find both s, p, d, f elements and metal, non-metals and amphoteric metals at the same time. From this point of view, we would like to draw the attention of readers to the modern table offered by us.

I hope that the new arrangement of the table will be assessed and evaluated by wide range of readers, and used as visual aids in our schools.

References

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		Periodic schedule of chemical elements													
Periods	Orders	Groups													
		A I B	A II B	A III B	A IV B	A V B	A VI B	A VII B	A VIII B						
1	1	H								He					
2	2	Li	Be	B	C	N	O	F	Ne						
3	3	Na	Mg	Al	Si	P	S	Cl	Ar						
4	4	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni				
	5	Cu	Zn	Ga	Ge	As	Se	Br	Kr						
5	6	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd				
	7	Ag	Cd	In	Sn	Sb	Te	I	Xe						
6	8	Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt				
	9	Au	Hg	Tl	Pb	Bi	Po	At	Rn						
7	10	Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt					
Head oxides		R ₂ O	RO	R ₂ O ₃	RO ₂	R ₂ O ₅	RO ₃	R ₂ O ₇	RO ₄						
Volatile hydrogenated compounds		RH ₄ , RH ₃ , RH ₂ , RH													
Lanthanide		Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Actinide		Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

СИНТЕЗ ЛЕКАРСТВЕННЫХ ПРЕПАРАТОВ ЛИДОКАИНА С АМИНОКИСЛОТАМИ

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АННОТАЦИЯ. Лидокаин в медицинской практике используют в качестве антиаритмического препарата в сердечно-сосудистой практике. Он является препаратом выбора для лечения желудочковых аритмий при инфаркте миокарда. Однако в последние годы при отсутствии эффекта от лидокаина чаще применяют бета-блокаторы или амиодарон [10, с. 21-27]. Это явилось предпосылкой для синтеза новых эффективных производных 2-диэтиламино-2,6-диметилфенилацетамида.

Синтез новых лекарственных средств на основе лидокаина был проведен ранее [5, с. 4-6]. Нами сделана попытка модифицировать его молекулу фрагментами, представляющими собой остатки некоторых альдегидной, гидроксильных и карбоксильной групп, с целью получения более эффективных, длительно действующих и менее токсичных антиаритмиков. Выбор использованных аминокислот был определен, исходя из их фармакологических свойств.

Цель работы: синтез новых производных 2-диэтиламино-2,6-диметилфенилацетамида с аминокислотами.

Материал и методы исследования: синтез новых соединений осуществляли взаимодействием 2,6-диметилфенил-2-диэтиламиноацетамида с точно рассчитанными количествами аминокислот в соотношениях 1:1 и 1:1,5. В качестве аминокислот были выбраны: треонин, таурин, глутаминовая кислота, которые применяются в виде самостоятельных лекарственных средств.

Результаты исследования: состав и чистота полученных соединений подтверждены данными элементного анализа и хроматографии в тонком слое сорбента. Полученные данные элементного анализа всех соединений подтверждены наличием в ИК-спектрах полос поглощения соответствующих функциональных групп.

Вывод: полученные соединения можно рекомендовать для дальнейшего изучения в качестве антиаритмиков.

ABSTRACT. Lidocaine in medical practice is used as an antiarrhythmic drug in cardiovascular practice. It is the drug of choice for the treatment of ventricular arrhythmias in myocardial infarction. However, in recent years, in the absence of the effect of lidocaine, beta-blockers or amiodarone are more often used [10, p. 21-27]. This was a prerequisite for the efficient synthesis of new derivatives of 2-diethylamino-2,6-dimethylphenylacetate.

Synthesis of new drugs based on lidocaine was carried out earlier [5, p. 4-6]. We have made an attempt to modify its molecule fragments, which are the remains of some aldehyde, hydroxyl and carboxyl groups, in order