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Presenting the Ulianov Electron Distribution Model: A New Way to Define Electronic Orbitals

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Abstract

This study presents a comprehensive comparison between the traditional Pauling electron distribution model and the innovative Ulianov model proposed by Dr. Policarpo Yoshin Ulianov. The Pauling model, which relies on the Aufbau principle, Hund's rule, and the Pauli exclusion principle, has been a cornerstone in understanding electron configurations within atoms, organizing electrons into s, p, d, and f orbitals. In contrast, the Ulianov model introduces a novel linear progression for electron occupancy, proposing additional orbitals (g and h) to account for electron distribution in a manner that deviates from conventional methodologies. Through an analytical comparison, this paper evaluates both models in terms of functionality, energy levels, and methodology, highlighting the advantages and disadvantages inherent to each. The Pauling model is recognized for its empirical support and wide acceptance, offering a well-established framework for electron configuration. Meanwhile, the Ulianov model provides a fresh perspective that could potentially explain anomalies unaddressed by the Pauling model and predict new chemical properties, despite its current lack of empirical validation. Concluding, while the Pauling model remains the standard for electron configuration, the Ulianov model's innovative approach challenges existing paradigms and invites further investigation into its validity and potential applications in the scientific community.

1. Introduction

The organization of electrons around an atomic nucleus is fundamental to understanding chemical properties and behaviors. Traditionally, the Pauling electron distribution model has been widely accepted and used for this purpose [1]. However, Dr. Policarpo Yoshin Ulianov has proposed an alternative model, known as the Ulianov electron distribution model, which prompts a detailed comparison of both methodologies in terms of their approach to electron configuration.

1.1. The Pauling Model

The Pauling model adheres to the Aufbau principle, Hund's rule, and the Pauli exclusion principle to define the order in which electrons fill the available atomic orbitals [1-3]. Electrons are said to occupy the lowest energy orbitals first before moving to higher energy levels. This model systematically organizes the electrons into s, p, d, and f orbitals, following a specific sequence that corresponds to increasing atomic numbers on the periodic table. Pauling model use 7 electrons layer with four orbitals possibilities:

- Orbital s = contain 1 to 2 electrons
- Orbital p = contain 1 to 6 electrons
- Orbital d = contain 1 to 10 electrons
- Orbital f = contain 1 to 18 electrons

1.2. The Ulianov Model

The Ulianov Electron Distribution (UED) model has bases in the Ulianov Theory and Ulianov String Theory and Kepler Ulianov Proton Tree (KUPT) model [4-6]. UED introduces a different perspective in the electrons, assuming that exists a more basic distribution given by the protons distribution in the atomic nucleon defined by the KUPT model and so the electron follows orders from its related protons. UED proposing a linear or alternative progression for electron occupancy, using seven level related to protons level at KUPT model. This new electron distribution also categorizes electrons into orbitals but follows a unique sequence that deviates from the conventional understanding. The specifics of this model focus on a hypothetical construct where additional orbitals or different filling orders are considered, ostensibly offering a new way to visualize electron distribution.

Ulianov model use seven electrons layer with four orbitals possibilities:

- Orbital s = contain 1 to 2 electrons
- Orbital p = contain 1 to 6 electrons
- Orbital g = contain 1 to 16 electrons (g = p + d)
- Orbital h = contain 1 to 30 electrons (h = p + d + f)

As can be seen in the attached table 1, the distribution, Ulianov generates a sequence and provide one address for each electron that is similar to Pauling's with small differences, making it very easy to go from one distribution to the other based on Table 1-Table 4 data.

Num	Element	Pauling Distribution	Ulianov Distribution
1	Hydrogen	$1s^1$	$1s^1$
2	Helium	$1s^2$	$1s^2$
3	Lithium	$1s^2$, $2s^1$	$1s^2$, $2s^1$
4	Beryllium	$1s^2$, $2s^2$	$1s^2$, $2s^2$
5	Boron	$1s^2$, $2s^2$, $2p^1$	$1s^2$, $2s^2$, $2p^1$
6	Carbon	$1s^2$, $2s^2$, $2p^2$	$1s^2$, $2s^2$, $2p^2$
7	Nitrogen	$1s^2$, $2s^2$, $2p^3$	$1s^2$, $2s^2$, $2p^3$
8	Oxygen	$1s^2$, $2s^2$, $2p^4$	$1s^2$, $2s^2$, $2p^4$
9	Fluorine	$1s^2$, $2s^2$, $2p^5$	$1s^2$, $2s^2$, $2p^5$
10	Neon	$1s^2$, $2s^2$, $2p^6$	$1s^2$, $2s^2$, $2p^6$
11	Sodium	$1s^2$, $2s^2$, $2p^6$, $3s^1$	$1s^2$, $2s^2$, $2p^6$, $3s^1$
12	Magnesium	$1s^2$, $2s^2$, $2p^6$, $3s^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$
13	Aluminum	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^1$
14	Silicon	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^2$
15	Phosphorus	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^3$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^3$
16	Sulfur	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^4$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^4$
17	Chlorine	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^5$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^5$
18	Argon	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$
19	Potassium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^1$
20	Calcium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$
21	Scandium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^1$
22	Titanium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^2$
23	Vanadium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^3$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^3$
24	Chromium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^4$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^4$
25	Manganese	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^5$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^5$
26	Iron	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^6$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^6$
27	Cobalt	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^7$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^7$
28	Nickel	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^8$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^8$
29	Copper	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^9$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^9$
30	Zinc	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{10}$
31	Gallium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{11}$
32	Germanium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{12}$
33	Arsenic	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^3$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{13}$

34	Selenium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^4$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{14}$
35	Bromine	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^5$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{15}$
36	Krypton	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}$
37	Rubidium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^1$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^1$
38	Strontium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2$
39	Yttrium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^1$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^1$
40	Zirconium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^2$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^2$
41	Niobium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^3$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^3$
42	Molybdenum	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^4$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^4$
43	Technetium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^5$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^5$
44	Ruthenium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^6$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^6$
45	Rhodium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^7$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^7$

Table 1: Electronic Distribution of Elements

Num	Element	Pauling Distribution	Ulianov Distribution
46	Palladium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^8$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^8$
47	Silver	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^9$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^9$
48	Cadmium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d10$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{10}$
49	Indium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^{10}, 5p^1$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{11}$
50	Tin	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^{10}, 5p^2$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{12}$
51	Antimony	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^{10}, 5p^3$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{13}$
52	Tellurium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^{10}, 5p^4$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{14}$
53	Iodine	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^{10}, 5p^5$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{15}$
54	Xenon	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^{10}, 5p^6$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}$
55	Cesium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2,4d^{10}, 5p^6, 6s^1$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^1$

56	Barium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$
57	Lanthanum	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^1$
58	Cerium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^2$
59	Praseodymium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^3$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^3$
60	Neodymium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^4$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^4$
61	Promethium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^5$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^5$
62	Samarium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^6$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^6$
63	Europium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^7$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^7$
64	Gadolinium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^8$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^8$
65	Terbium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^9$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^9$
66	Dysprosium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{10}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{10}$
67	Holmium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{11}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{11}$
68	Erbium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{12}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{12}$
69	Thulium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{13}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{13}$
70	Ytterbium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{14}$
71	Lutetium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{15}$
72	Hafnium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{16}$

73	Tantalum	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^3$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{17}$

Table 2: Electronic Distribution of Elements

Num	Element	Pauling Distribution	Ulianov Distribution
74	Tungsten	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^4$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{18}$
75	Rhenium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^5$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{19}$
76	Osmium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^6$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{20}$
77	Iridium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^7$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{21}$
78	Platinum	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^8$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{22}$
79	Gold	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^9$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{23}$
80	Mercury	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{24}$
81	Thallium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^1$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{25}$
82	Lead	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^2$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{26}$
83	Bismuth	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^3$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{27}$
84	Polonium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^4$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{28}$
85	Astatine	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^5$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{29}$
86	Radon	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{30}$
87	Francium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6, 7s^1$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{30}, 7s^1$
88	Radium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6, 7s^2$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{30}, 7s^2$

89	Actinium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^1$
90	Thorium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^2$
91	Protactinium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^3$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^3$
92	Uranium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^4$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^4$
93	Neptunium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^5$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^5$
94	Plutonium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^6$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^6$
95	Americium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^7$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^7$
96	Curium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^8$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^8$
97	Berkelium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^9$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^9$
98	Californium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{10}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^{10}$
99	Einsteinium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{11}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^{11}$
100	Fermium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$,$4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{12}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$,$6s^2$, $6h^{30}$, $7s^2$, $7h^{12}$

Table 3: Electronic Distribution of Elements

Num	Element	Pauling Distribution	Ulianov Distribution
101	Mendelevium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{13}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{13}$
102	Nobelium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{14}$
103	Lawrencium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{15}$

104	Rutherfordium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{16}$
105	Dubnium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^3$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{17}$
106	Seaborgium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^4$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{18}$
107	Bohrium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^5$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{19}$
108	Hassium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^6$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{20}$
109	Meitnerium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^7$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{21}$
110	Darmstadtium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^8$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{22}$
111	Roentgenium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^9$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{23}$
112	Copernicium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d$10	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{24}$
113	Nihonium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^{10}$, $7p^1$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{25}$
114	Flerovium	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $3d^{10}$, $4p^6$, $5s^2$, $4d^{10}$, $5p^6$, $6s^2$, $4f^{14}$, $5d^{10}$, $6p^6$, $7s^2$, $5f^{14}$, $6d^{10}$, $7p^2$	$1s^2$, $2s^2$, $2p^6$, $3s^2$, $3p^6$, $4s^2$, $4g^{16}$, $5s^2$, $5g^{16}$, $6s^2$, $6h^{30}$, $7s^2$, $7h^{26}$

115	Moscovium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6, 7s^2, 5f^{14}, 6d^{10}, 7p^3$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{30}, 7s^2, 7h^{27}$
116	Livermorium	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6, 7s^2, 5f^{14}, 6d^{10}, 7p^4$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{30}, 7s^2, 7h^{28}$
117	Tennessine	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6, 7s^2, 5f^{14}, 6d^{10}, 7p^5$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{30}, 7s^2, 7h^{29}$
118	Oganesson	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6, 7s^2, 5f^{14}, 6d^{10}, 7p^6$	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 4g^{16}, 5s^2, 5g^{16}, 6s^2, 6h^{30}, 7s^2, 7h^{30}$
119	To be found	$1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^{10}, 4p^6, 5s^2, 4d^{10}, 5p^6, 6s^2, 4f^{14}, 5d^{10}, 6p^6, 7s^2, 5f^{14}, 6d^{10}, 7p^6, 7d^1$	Electron cannot be placed Need $8s^1$ orbital that is not available

Table 4: Electronic Distribution of Elements

1.3. Analysis and Comparison

To compare the Ulianov distribution model with Pauling distribution model, we can make an analogy, envisioning a hotel with rooms situated along a spiraling ramp that gently ascends, the room numbers increase steadily both in terms of floor and room number as one ascends the ramp. So, we need define a label for each room composed by the floor number and room position in the floor. The Ulianov distribution give a label that reflects a continuous and orderly progression, where both the floor and room numbers increase in a linear and predictable fashion, mirroring the sequential addition of electrons in ascending energy levels. Conversely, in the Pauling distribution model, the rooms are also aligned according to their energy levels on the ramp, but the floor numbering system jumps erratically up and down. This means that while each room has a unique double-digit designation (floor and room number) similar to its position in the Ulianov model, the Pauling model requires a complex diagram or table to navigate the next room in sequence because of the non-linear floor numbering. Thus, although both systems ultimately address the same sequential order of rooms based on their position on the ramp (or energy level), the Ulianov model does so in a straightforward, sequential manner, while the Pauling model employs a more complex, non-sequential approach to room numbering.

• **Functionality:** Both the Pauling and Ulianov models serve the primary function of addressing electrons in their respective orbitals around the nucleus. They provide a structured method to under- stand the electron configuration within atoms.

• **Energy Levels:** In the Pauling model, energy levels increase predictably as one moves through the periodic table, with electrons filling lower energy orbitals before those of higher energy. The Ulianov model, while differing in its approach, ostensibly adheres to a principle where energy levels also increase, albeit through a different sequence or inclusion of hypothetical orbitals.

• **Methodology:** The principal difference lies in the methodology of determining the electron filling order. The Pauling model is based on empirical observations and quantum mechanics principles, making it widely accepted in the scientific community. The Ulianov model, however, introduces an alternative method that might not align with current empirical data but offers a theoretical perspective on electron distribution.

1.4. Advantages and Disadvantages

1.4.1. Pauling Model

• **Advantages:** Well-established, supported by experimental data, and widely taught, making it universally understood among chemists and physicists.

• **Disadvantages:** While highly accurate for many elements, anomalies in electron configurations can occur (e.g., transition metals) that the model does not intuitively predict. It follows an order that jumps from one orbital to another, requiring a diagram to determine the order of increasing energy. It allows the existence of atoms heavier than Oganesson.

1.4.2. Ulianov Model

• **Advantages:** Offers a novel perspective that could potentially explain phenomena not covered by the Pauling model or predict new chemical properties. Predict that Oganesson is the last

element. It follows an increasing order of orbital distribution associated with an increasing order of energy, making it easier to fill out the electron diagram and know the right order to follow.
• **Disadvantages:** Lacks empirical support and may not be easily integrated into the existing framework of chemical education and research without substantial evidence.

2. Conclusion

In comparing the Pauling and Ulianov electron distribution models, it's clear that both aim to fulfill the same fundamental goal of electron configuration description. While the Pauling model remains the standard due to its empirical validation and theoretical foundation, the Ulianov model presents an intriguing alternative that challenges conventional thinking. Further investigation and validation are required to ascertain its practicality and accuracy, underscoring the dynamic nature of scientific inquiry and the ever-evolving understanding of atomic structure.

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