# Probable balanced chemical reaction's for the preparation of Neptunium, Uranium, Gold and large amount of hydrogen by balancing the atomic number and valance states.

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Abstract: In the present paper, probable balanced chemical reactions for the preparation of Neptunium, Uranium, Gold and large amount of hydrogen by balancing the atomic number and valance states are presented. The final compounds are (Si5CNHF: Neptunium), (Si5CNF: Uranium) and (Si5CNHF: Gold). In the case of preparation of (Si5CF24)2, (Si5CF24)2O3 and (Si5CNHF24)2O5 compounds large amount of hydrogen can be obtained. These compounds can be prepared by heating till melting point. One needs to cross check these prepared compounds to match with the elements in the periodic table. Research and development work in this direction is needed to cross check Neptunium, Uranium and Gold can be prepared by using probable balanced chemical reactions.

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### I. Introduction:

The Neptunium, Uranium and Gold are present in earth soil in small quantity and are extracted from the mines of respective elements located in different regions all over the world. The Neptunium and Uranium are used in making nuclear bombs and also to produce electricity using nuclear power plants. The cost of these elements is very high and is available in small quantity in earth's soil. The cost of gold is also increasing every year due to demand for gold and limited availability of gold in gold mines. In the present paper, probable balanced chemical reactions for the preparation of Neptunium, Uranium, Gold and large amount of hydrogen by balancing the atomic number and valance states are presented. The final compounds are (Si5CNHF: Neptunium), (Si5CNF: Uranium) and (Si5CNHF: Gold). The chemical reaction written for the above elements are presented in this paper.

## II. Results and discussion:

1) Preparation of (Si5CF24)2, (Si5CF24)2O3 and (Si5CNHF24)2O5 to produce large amount of hydrogen. There is a need to check which elements from the periodic table are formed by above compounds.

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10Si+3H2O+48HF+2CH4
                                  (Si5CF24)2+31H2+1.5O2
10SiH4+3H2O+48HF+2CH4
                                         (Si5CF24)2+51H2+1.5O2
10SiC+19H2O+ 48HF +CH4
                                  (Si5CF24)2+9CO2+45H2+0.5O2
10Si3N4+9H2O+144HF+6CH4
                                  3(Si5CF24)2+20N2+93H2+4.5O2
10SiO2+H2O+ 48HF +2CH4
                                  (Si5CF24)2+29H2+10.5O2
10SiF4+3H2O+8HF+2CH4
                                         (Si5CF24)2+11H2+1.5O2
10Si+3H2O+48HF+2CH4
                                  (Si5CF24)2O3+31H2
10SiH4+3H2O+48HF+2CH4
                                         (Si5CF24)2O3+51H2
10SiC+19H2O+ 48HF +CH4
                                  (Si5CF24)2O3+9CO2+45H2+0.5O2
10Si3N4+9H2O+144HF+6CH4
                                  3(Si5CF24)2O3+20N2+93H2+3O2
10SiO2+H2O+ 48HF +2CH4
                                  (Si5CF24)2O3+29H2+9O2
      10SiF4+3H2O+8HF+2CH4
                                                (Si5CF24)2O3+11H2
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10Si+3H2O+48HF+2CH4+2HNO3
                                            (Si5CNHF24)2O5+31H2+2O2
10SiH4+3H2O+48HF+2CH4
                             +2HNO3
                                                   (Si5CNHF24)2O5+51H2+2O2
10SiC+19H2O+ 48HF +2CH4+2HNO3
                                            (Si5CNHF24)2O5+10CO2+47H2
10Si3N4+9H2O+144HF+6CH4+HNO3
                                     3(Si5CNHF24)2O5+17.5N2+90.5H2+3.5O2
10SiO2+H2O+ 48HF +2CH4+2HNO3
                                            (Si5CNHF24)2O5+29H2+11O2
10SiF4+3H2O+8HF+2CH4+2HNO3
                                                   (Si5CNHF24)2O5+11H2+2O2
2)
       Preparation of (Si5CNHF) (possibly Neptunium)
Element Atomic number Total atomic number
                                                           valance
                      14
                                            14*5
                                                                          +4*5
C
                      6
                                            6*1
                                                                          +4*1
N
                      7
                                            7*1
                                                                          +4*1
                      1
                                            1*1
                                                                          +1*1
Η
F
                      9
                                            9*1
                                                                          -1*9
(Si5CNHF: Neptunium)
                              93( total atomic number) 20 (total valance)
The average valance number is total Valance/number of elements in the compound (Si5CNHF) = 20/5=4
10Si+3H2O+2HF+2CH4+2HNO3
                                            2Si5CNHF +8H2+4.5O2
10SiH4+3H2O+2HF+2CH4
                             +2HNO3
                                                   2Si5CNHF +28H2+4.5O2
10SiC+19H2O+ 2HF +2CH4+2HNO3
                                            2Si5CNHF +10CO2+24H2+2.5O2
10Si3N4+9H2O+6HF+6CH4+HNO3
                                     6Si5CNHF +17.5N2+21.5H2+6O2
10SiO2+H2O+ 2HF +2CH4+2HNO3
                                            2Si5CNHF +6H2+13.5O2
10SiF4+3H2O+HF+2CH4+2HNO3
                                                   2Si5CNHF +19.5F2+7.5H2+4.5O2
       Preparation of (Si5CNF) (possibly Uranium)
3)
Element Atomic number Total atomic number
                                                           Valance
Si
                      14
                                            14*5
                                                                          +4*5
C
                      6
                                            6*1
                                                                          +4*1
                      7
N
                                            7*1
                                                                          +5*1
                                            9*1
                                                                          -1*9
(Si5CNF: Uranium)
                                            92 (total atomic number) 20 (Total valance)
The average valance number is total Valance/number of elements in the compound (Si5CNF) =20/4=5
10Si+3H2O+2HF+2CH4+2HNO3
                                            2 Si5CNF+9H2+4.5O2
10SiH4+3H2O+2HF+2CH4
                             +2HNO3
                                                   2 Si5CNF+29H2+4.5O2
10SiC+19H2O+ 2HF +2CH4+2HNO3
                                            2 Si5CNF+10CO2+25H2+2.5O2
10Si3N4+9H2O+6HF+6CH4+HNO3
                                     6 Si5CNF+17.5N2+24.5H2+6O2
10SiO2+H2O+ 2HF +2CH4+2HNO3
                                            2 Si5CNF +7H2+13.5O2
                                                   2 Si5CNF+19.5F2+8.5H2+4.5O2
10SiF4+3H2O+HF+2CH4+2HNO3
4)
       Preparation of (Si4CNHF) (possibly gold)
Element Atomic number Total atomic number
                                                           valance
                                            14*4
Si
                      14
                                                                          +4*4
C
                      6
                                            6*1
                                                                          +4*1
N
                      7
                                            7*1
                                                                          +3*1
                                            1*1
Η
                      1
                                                                          +1*1
                                            9*1
                      9
                                                                          -1*9
                                            79
(Si5CNHF: Gold)
                                                                          15
The average valance number is total Valance/number of elements in the compound (Si4CNHF) =15/5=3
8Si+3H2O+2HF+2CH4+2HNO3
                                            2 Si4CNHF +8H2+4.5O2
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The above compounds can be prepared by heating the mixture of initial reagents until melting point. One needs to check the formation of compounds/elements (i.e. Neptunium, Uranium and Gold) by XRD.

### **III. Conclusions:**

Preparation of Neptunium, Uranium, Gold and large amount of hydrogen through probable balanced chemical reactions is presented in this paper by balancing the atomic number and valance states. The probable formula of Neptunium, Uranium and Gold are (Si5CNHF: Neptunium), (Si5CNF: Uranium) and (Si5CNHF: Gold). Research and development work is needed to prepare the above elements or compounds. In the case of preparation of (Si5CF24)2, (Si5CF24)2O3 and (Si5CNHF24)2O5 compounds large amount of hydrogen can be obtained. One needs to cross check these prepared compounds/elements to match with the elements in the periodic table through XRD.

**Declaration of interests:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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