

Transformation of chemical elements in nonequilibrium media

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A simple experiment is proposed to explain the phenomenon - the transformation of chemical elements and “Strange Radiation” [1, 2], observed in nonequilibrium media. Such media, in particular, aqueous solutions, as a rule, are in a nonequilibrium thermodynamic state with three-dimensional dissipative structures [3] based on Spin Isomers [4, 5]. The experiment (shown in Fig. 1) is based on the effect of contactless excitation of an aqueous solution of KMnO_4 , either in a glass container (1), or in a polypropylene one (2) during electrolysis of an aqueous solution of NaHCO_3 (3). The experiment was carried out according to the technique (patent RU 2316374) on the Ikar installation (<https://ikar.udm.ru/i-si-04.htm>) with a block of electrodes (4) (KF, patent RU 2299859) and with a thermostat (5) (patent RU 138740).

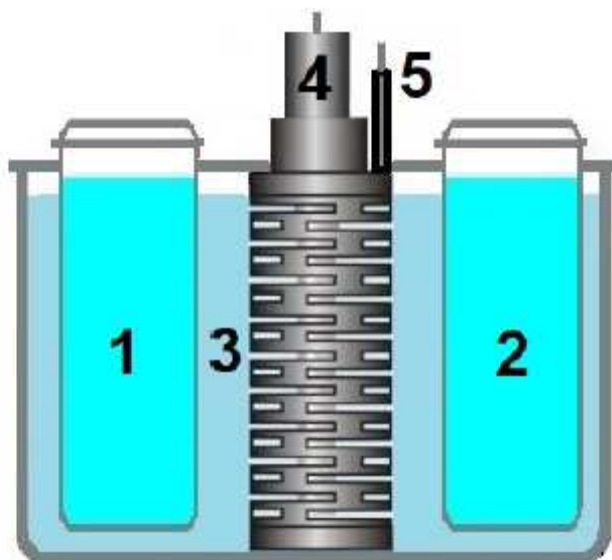


Fig. 1. Experiment scheme.

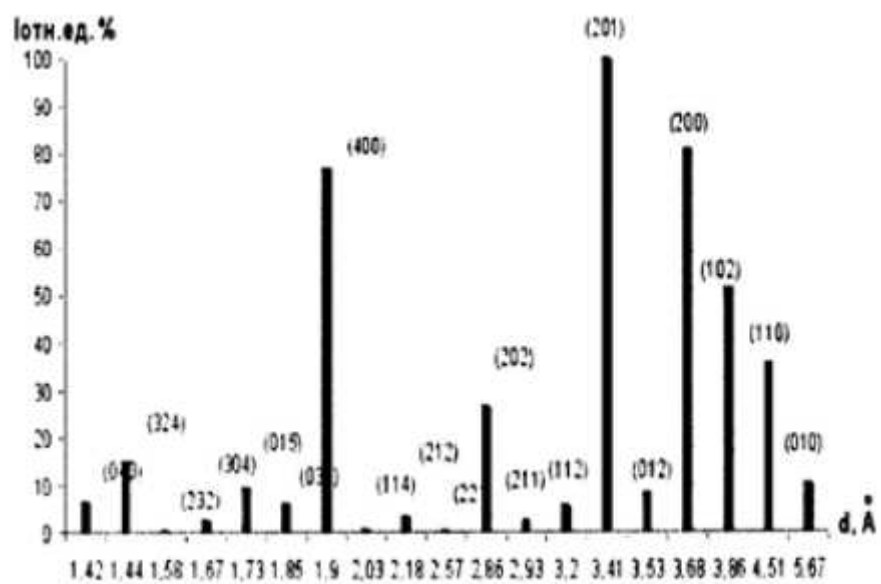


Fig. 2. Linear X-ray pattern 1 KMnO_4 .

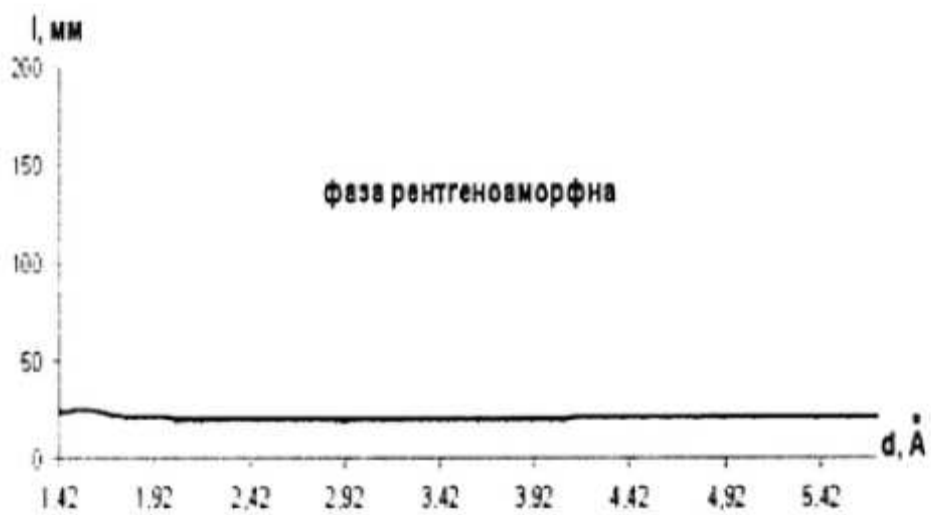


Fig. 3. Bar-X-ray diffraction pattern 2 KMnO_4 .

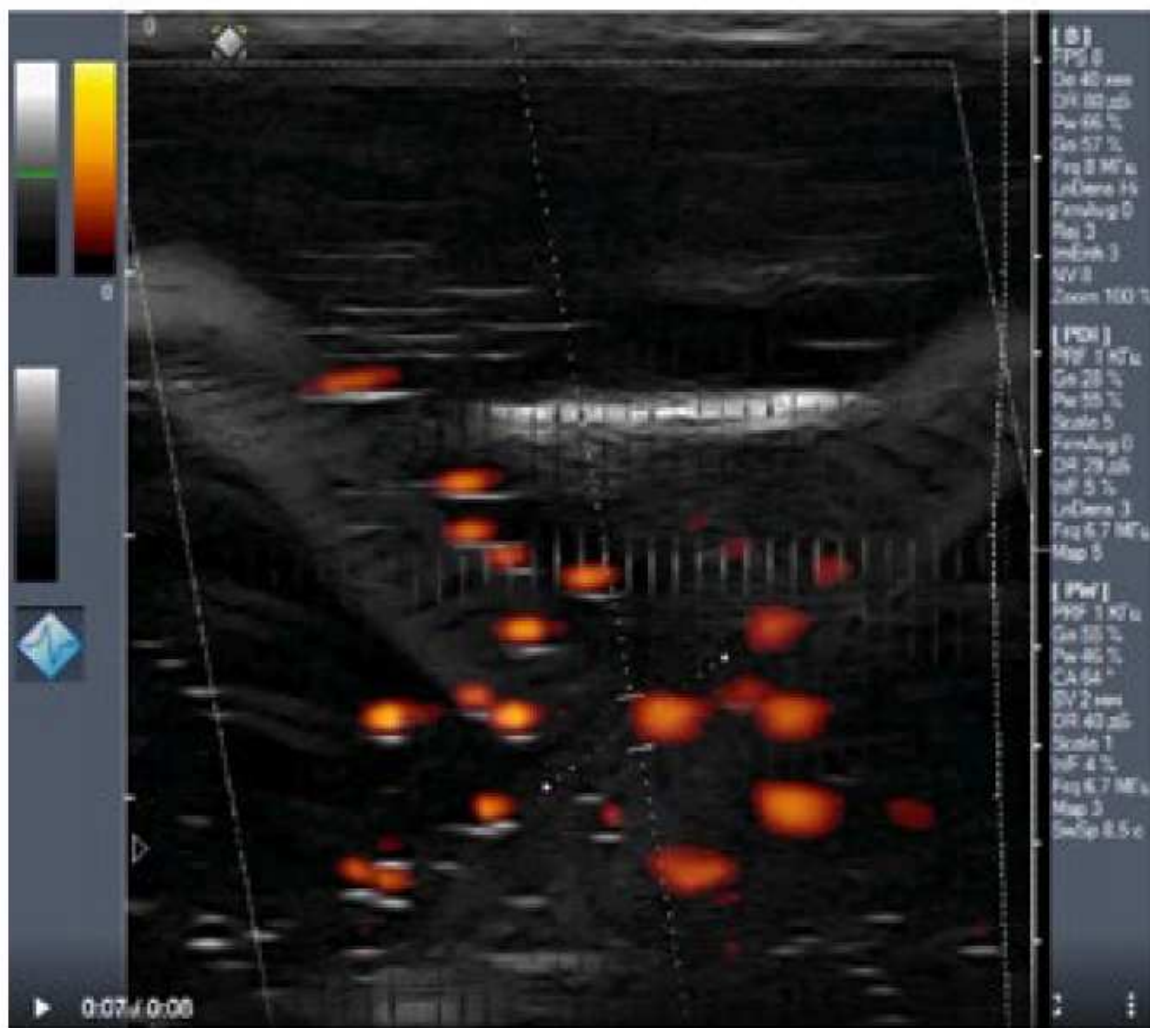


Fig. 4. "Ball-light".

The experiment observed the transformation of some chemical elements (Table 1, Fig.2,3) and the emergence of "strange" radiation from the "ball-light" (Fig.4 video at <https://ikar.udm.ru/files/video/01os-ph-uzi-d-180605.mp4>). The composition of the obtained solutions was investigated at the NMC "Microelement" laboratories using an Optima-4300DV atomic emission spectrometer (Perkin-Elmer, USA). Analysis method: Inductively Coupled Plasma Atomic Emission (ICP-AES). The crystallization process (patent RU 2316374) during electrolysis from solutions 1 and 2 obtained substances with bar-X-ray diffraction patterns 1,2 KMnO₄ (Fig. 2, 3).

Table 1

Element, µg / ml	K	Mn	Ca	Mg	Na	Zn	Ni	Cr
original solutions 1,2	2.513,48	3.600,72	11,29	6,107	3,887	16,368	0,033	0,834
solution No. 1, glass	2.233,15	3.295,92	0	0,609	0	3,261	1,411	0,375
solution No. 2, pp	1.929,58	1.929,58	0	0	0	14,509	0,596	0,091

“Strange” radiation was recorded in solutions 1, 2 EMF by the “DSI-2” sensor, “ball-light” was recorded by the ultrasound scanner LogicScan 128EXT. An additional study of the electrolysis process when turning on and off the Ikar setup (model 04) with KF showed the presence of additional gamma radiation on the MB-9200 scintillation gamma camera from GAMMA (Hungary), exceeding the background by 1.5-2 times. The physics of the processes of "anomalous" properties of non-equilibrium media, in particular, aqueous solutions (homeopathy, contactless activation of liquids, LERN-CNS, gamma radiation ...) in living and inanimate systems is complex, but generally understandable - the formation of "ball-light" occurs [5] from spin isomers [4]. In conclusion, the authors express their sincere gratitude to the radiologist S.A. Orlov. and Rustembekova S.A., Gorshkov V.V. (NMC "Microelement") for help in conducting experiments.

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