

New York Tribune

August 18, 1935

## Expanding Sun Will Explode Some Day Tesla Predicts

By Nikola Tesla

Before radio-activity became known and as a result of years of meditation I discovered a physical truth of the greatest importance expressed by the statement: "There can be no energy in gross matter except that which had been or is being, received from without."

The general recognition of this universal principle will sweep away many illusory ideas which have been woven into modern science and lead to a better understanding of the structure and operation of the cosmos. It shows that the immense atomic energy, thought to be due to rotary actions, does not exist. It exposes some of the fallacies of relativity and other theories.

It bears out the view that condensation of the primary substance is going on continuously, this being in a measure proved, for I have

established by experiments which admit of no doubt that the sun and other celestial bodies steadily increase in mass and energy and ultimately must explode, reverting to the primary substance.

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*Nikola Tesla*

### Activating Rays Linked to Sun

When radio-active phenomena were discovered I was prepared to view them merely as secondary effects of the external radiation, and as no trace of such a disturbance could be detected on earth I concluded that the primary activating rays were of cosmic origin and most likely to emanate from suns closely resembling our luminary. As the first step toward clearing up the mystery I undertook to ascertain whether the sun was charged to a potential sufficiently high to produce the tremendous electrostatic repulsion which I found to be the only force in nature capable of accounting for the phenomena.

The subject required extended investigation, but finally I ascertained with a reasonable degree of certitude, and to my amazement, that the sun was at a constant positive potential of about 216,000,000,000 volts. Thus the secret of the cosmic rays was revealed. Owing to its immense charge, the sun imparts to minute positively electrified particles prodigious velocities which are governed only by the ratio between the quantity of free electricity carried by the particles and their mass, some attaining a speed exceeding fifty times that of light.

## **“Erroneous Views” Cited**

The literature of cosmic rays is remarkable for its extent and almost as much for the erroneous views propounded. In this brief communication I can dwell on only a few of these.

It is held, in accordance with findings, that at great altitudes the intensity of the rays is more than 10,000 percent greater than at sea level. I have pointed out that the maximum possible increase could hardly exceed 50 percent and is, in reality, much smaller. How then, can the phenomenal intensities recorded be explained? The answer is simple. The effects are due to radiations entirely different from the cosmic, longitudinal pulses in the ether, which behave like particles of relatively small penetrative but extraordinarily great ionizing power.

Then, again, it is said that the rays are much weaker at the equator, or near it, than in greater latitudes or at the poles. But this is only true for a limited height, beyond which the intensity is the same all over the earth. I found the discrepancy to be due to a partial neutralization of the positive particles composing the rays by the negative carried by rising air currents. In the equatorial zones this neutralizing action may be so great as to reduce the intensity of the rays to a few percent of the normal. In the moderate zones and polar regions, the positively charged descending air produces the opposite effect, thus increasing the difference in the intensities recorded in different latitudes.

## **Energy Appraisal Called Faulty**

The greatest mistake is made in the appraisal of the energy of cosmic rays. In most cases the ionizing action is used as a criterion, which is useless, for the most powerful cosmic rays virtually do not ionize at all and leave no trace of their passage through the instrument. I have resorted to different means and methods and have found that the energy of the radiations impinging upon the earth from all sides is stupendous, such that if all of it were converted into heat the globe quickly would be melted and volatilized.

Since expressing, in 1896, my ideas on the origin and character of cosmic rays and of the cause of radioactivity, all my views have been confirmed by my own findings and those of others. While the numerous theories advanced have been prove false or inadequate. Those who are still doubting that our sun emits powerful cosmic rays evidently overlook that the solar disk, in whatever position it may be in the heavens, cuts off the radiations from beyond, replacing them by its own.

As the radiations from the sun are only a little more intense than those coming from other directions, the lack of pronounced differentiation has deceived the observers. Regarding radioactivity, it occurs exactly as required by my theory. The radio-active emanations from the globe are secondary effects of external rays and two-fold — one part coming from energy stored, the other from that continuously supplied.

