Carrying knowledge into a new vision of plasma chemistry

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Plasma chemistry has been bringing manufacturing innovations, such as Si ultralarge scale integrated circuits, solar cell devices and flexible electronic devices etc. for past 40 years. Nowadays, all industries in the world are employing the plasma technologies to manufacture products. During the past decade, the atmospheric pressure plasma has been opening a new avenue in medicine and agriculture fields. In the new bio filed, we can observe interesting phenomena, where cells respond to the plasma stimulation through the apoptosis, the immune, the self-growth mechanism, that is, a programmed processing. In the forecasts of future society, the most importance in plasma chemistry and its applications is always stressing on the development of a new plasma processing employing plasma diagnostics, which clarifying not only the species in the gas phase but also the mechanisms in the interaction of plasma with solid and liquid. Additionally, to recite the vision for the future technology and execute it with carrying the past knowledge into a new vison of plasma chemistry. I will propose physicochemical and biochemical reactions employing the atomic size control, self-organization and programmed processes for the plasma chemistry contributing to the sustainability of human being through the breakthrough innovations.