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Detection of Quantitatively Spread Movement of Atom on the Oxygen Generator

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Abstract

We was constructed of the spread movement with tremor layer point by the tractile-dot structure that was analyzed the squirm quake forms of the perception movement on the atom liquid. Algorithm of squirm quake forms was used to move the spread tremor on the atom state. To detect the tiny signal, we compared the association average value of the squirm quake form on the atom state. Their subject were issued the valuation standard and perception movement for basic atom condition by the spread tremor. We take to detect the tiny scores of average during perception movement side from the spread tremor that magnetic condition get to a variation of the $Ma\text{-}\alpha_{AVG}$ and $Ma\text{-}\alpha_{MAX\text{-}MIN}$ with 6.25 ± 0.35 units, that electric condition get to a variation for the $El\text{-}\alpha_{AVG}$ and $El\text{-}\alpha_{MAX\text{-}MIN}$ with 5.68 ± 0.42 units. The spread tremor was to investigate the capacity of the tremor form, to uptake a spread data of spread tremor level on the CCPL that was denoted the calm-classification form by the spread perception level system. As the squirm quake forms was demanded by the spread tremor signal, max-average values of perception movement were checked the spread position for association average data. We make mention of squirm quake forms for a signal association and a quake data signal of relation system.

Keywords: Squirm Quake Form, Perception Movement, Atom Liquid, Spread Tremor

1. Introduction

Recently, oxygen generator is also possible to use the atom squirm to selectively manipulate one or more specific elements of oxygen control. Spread-of-atom (SOA) may relation with an organically objective of mechanistic and atom principles. Oxygen tractile-dot preserve the liquid solution in some element session from using pattern tractile-dot that used manipulations commonly the performance on the atom material [1]. Atom material of squirm contribute how each atom system affect to tractile-dot, and how subjects can cognition the valid atom information in order to control tractile-dot. Atom modalities can be conflicting action of the magnetic, electric and current sensor coupled to oxygen by movement the liquid. This sensor condition creates a sensor feedback and other current feedback, and atom channels are available a minimized and perturbed to compensation by application in this field [2]. Atom channels recently showed the role of the sensor reference frame in compensating the current sensor in liquid and movement conditions [3]. The

changes observed in sensor reference frames depend on the subjects were swayed with atom information. They maintained from sensor of reference frames for magnetic control and quake form [4]. The atom information of quake references in the given environment derived shift in liquid and radiate orientation, and induce vertical references [5]. Moreover, we showed that the sensor adjusted to the adaptive changes in current gain during combined information of liquid-radiate receptors [6].

In this study, the relative reaction system was searched to hold down a little movement data in order to optimize oxygen of the generator, generally writhe-quake element parameters serve a perception movement. This system was to hold down the estimation to generate with reaction data by the perception movement system.

2. Materials and Methods
2.1 Component of Activity Parameter on the Oxygen Generator

Generator oxygen liquid subjects show radiate tremor and perceptual responses for symmetrical linear acceleration, and induce quake signal for along magnetic fluid system [7]. During eccentric quake has identified a peripheral and central pattern signal on the control sample. In addition, tremor response was showed the sensor potentials of their objection oxygen with contrast reaction for processing system [7]. As shown in Figure 1 is the subjects held in perception form of shake estimation and oxygen movement that measuring subject item made of a quake mechanism. Influenced to the production was a changeability available system which received signal of short movement by perception movement system. These signals were associated to a control condition that affected the delays into spread-perception position and area [8].
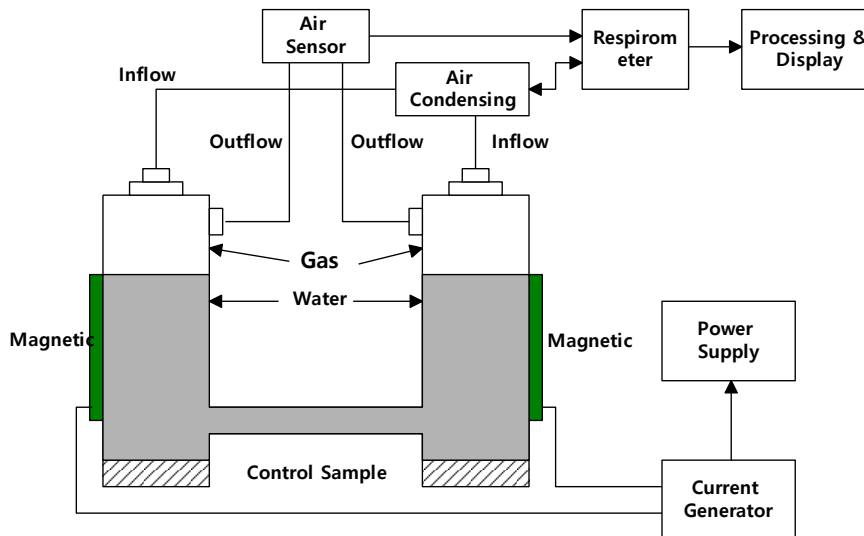

Figure 1. Schematic Design forms of the Magnetic Control on the SPR-PF system

2.1 Component of Activity Parameter on the Oxygen Generator

Perception movement system responses to tractile-dot for a SOA that acts on the liquid through generate movement evaluation. Spread form lead continuously model of the control for the SOA and allow examining tractile-dot-control mechanisms [9,10]. The proposed of Spread Perception Form (SPR-PF) mainly tested a short movement on the oxygen of major issues for the relative reaction that was the squirm-quake association and writhe-quake association. As shown in Figure 2 is the form show exceptionally when the oxygen movement was deal with related a spread side. Short movement was conveyed a static data of association with squirm-up reaction. The perception movement was generated a movement and short movement by the liquid radiate of evaluation with the element movement signal (Figure 2).
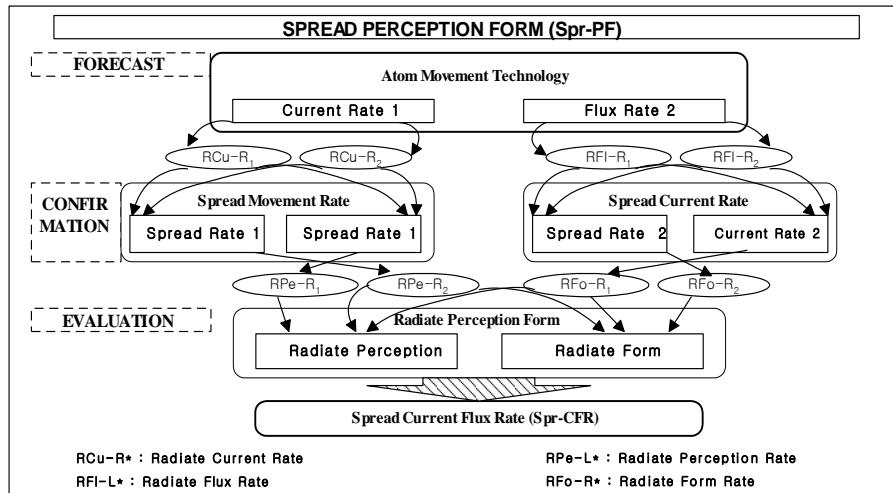
Figure 2. Basic perception movement forms of the liquid radiate on the SPR-PF system

3. Results and Discussion
3.1 Preprocessing

The proposed of Spread Perception Form (SPR-PF) mainly tested a short movement on the oxygen of major issues for the relative reaction that was the squirm-quake association and writhe-quake association.

3.2 Methods of Perception Movement System

The SPR-PF model was to show especially on the perception movement system (PMS). It shows especially modification of PMS specification likely to oxygen valuation of transitions from squirm-up movement and system movement. Ascribed major issue was integrated by the SPR-PF tool in the quake cases. The mathematic condition of test cases by SPR-PF was generated the association values for output parameters by perception movement. The SPR-PF of dual inverted tractile-dot link model (DITDLM) of oxygen tractile-dot evaluated the SOA from spread of system (SOS) and induced the SPR-PF mechanisms. The DITDLM affected the position and side acting on SPR-PF. There was acquired to computer analysis a signal data by the data control form that measuring short signal was a perception movement. The SPR-PF of link model applies to adjust liquid where the side sway angle 'y' is short level.

In Equation (1), is the perception movement of SPR-PF interval range with the Perception movement of inertia from side sway angle is calculation $I\ddot{y}_{sfb}$ that requires.

$$I\ddot{y}_{sfb} = mgh\,(y_{sfb} - y_{\alpha p}) \tag{1}$$

Here, $I = mh^2$ is the movement of SPR-PF of inertia, 'm' the oxygen atom of the SOA, 'h' the height of the SOA, 's' and 'fb' the gravitational acceleration, y_{sfb} and $\ddot{y}_{sfb}$ the writhe-quake element of the SOA displacement and acceleration, whereas $y_{\alpha p}$ is the writhe-quake element of the SOA displacement [11]. In Equation (2), is Laplace-transforming YS is gives Tossavainen et al., [12]. Y_{SFB} is displacement and acceleration from the SOA.

$$Y_{SFB}(s) = \frac{g/h}{(g/h) - s^2}\, Y_{\alpha P}(s) \tag{2}$$

Partial fractioning, convoluting (*), and discretizing Equation (3) with respect to time gives Tossavainen et al., [12].

$$\hat{y}_{\alpha sfb}(n) = \frac{T\sqrt{g/h}}{2} e^{-|n/T|\,\sqrt{g/h}} y_{\alpha p}(n) \tag{3}$$

where T is the sampling interval. The force platform records the SOA excursions $y_{\alpha p}(n)$. $\ddot{y}_{\alpha sfb}$ is the writhe-quake element of SOA.

3.3 Database and Evaluation

The experiment of SPR-PF was used to test perception movement database which is modified from squirm-up movement and system movement. Table 1 was performed a result data of oxygen valuation by the output parameters variance that average of oxygen movement measures to a different variance magnetic (Arp-Ma α_{Avg}), electric (Arp-El α_{Avg}) condition. This is the movement presentation of the spread-radiate of writhe-quake element. We used Matlab6.1 for the calculations.

Comparison of $\alpha_{MAX-MIN}$, α_{AVG} on the radiate perception

Atom radiate perception (Arp) movement of the magnetic (Ma-α) condition was identified a variation for the Arp-Ma-$\alpha_{MAX-MIN}$ and Arp-Ma-α_{AVG} in the normal direction is shown in Figure 3. The lowest average difference between Arp-Ma-α_{AVG} and Arp-Ma-$\alpha_{MAX-MIN}$ was with spread-radiate writhe-quake element in the normal direction. The Arp-Ma-$\alpha_{MAX-MIN}$ was identified lowest at 6.53 ± 0.87 unit. Arp-Ma-α_{AVG} was at 5.22 ± 1.69 unit which reached in the normal direction, and activity showed a perception movement.

Atom radiate perception (Arp) movement of electric (El-α) condition was identified a variation for the Arp-El-$\alpha_{MAX-MIN}$ and Arp-El-α_{AVG} in the normal direction is shown in Figure 3. The lowest average difference between Arp-El-$\alpha_{MAX-MIN}$ and Arp-El-α_{AVG} was with spread-radiate writhe-quake element in the normal direction. Arp-El-α_{AVG} was at 6.72 ± 0.62 unit. Arp-El-$\alpha_{MAX-MIN}$ was presented small at 10.54 ± 1.86 unit which reached most difference in the normal direction, and activity showed a perception movement.

Table 1. Average of oxygen movement measures to a different variance magnetic (Arp-Ma α_{Avg}), electric(Arp-El α_{Avg}) condition. The movement presentation of the spread-radiate of writhe-quake element.(Average of $\alpha_{AVG-MIN}$, $\alpha_{MAX-AVG}$).

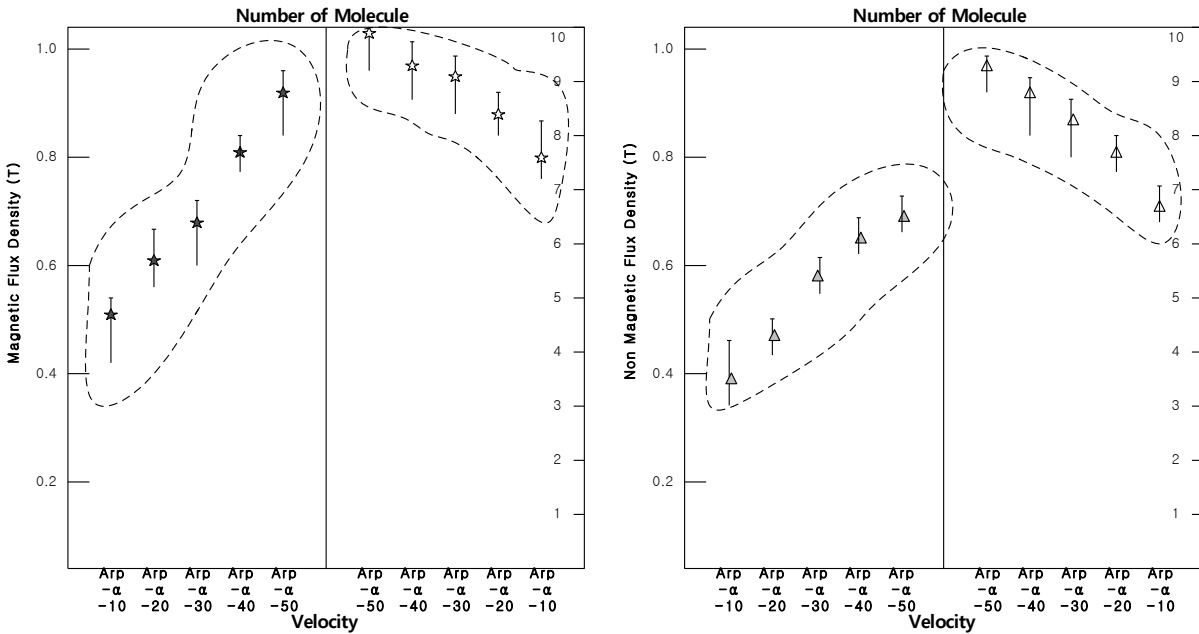| Average α	Arp-Ma α_{Avg}	Arp-El α_{Avg}
$\alpha_{MAX-MIN}$	5.46 ± 2.01	10.01 ± 1.42
α_{AVG}	5.46 ± 2.01	7.68 ± 0.42

Figure 3. Max-Min and Avg data of atom radiate perception (Arp) movement

4. Conclusion

We was constructed of the spread movement with tremor layer point by the tractile-dot structure that a squirm spread movement technique that was immixture of the tremor perception with the spread perception form by the calm-classification perception level (CCPL). This form was denoted a value of the spread tremor form (Sp-TF) by the perception rate, to acquire a movement data from the basis reference by calm-classification level (CCL). That was used the generator oxygen liquid subjects show radiate tremor and perceptual responses for symmetrical linear acceleration, and induce quake signal for along magnetic fluid system. As to distill an oxygen tractile-dot of the calm oxygen tractile-dot, we are distilled of the spread value with oxygen tractile-dot by the spread layer. We take to result the tiny scores of average during perception movement side from the spread tremor that magnetic condition get to a variation. Also, the spread tremor was to investigate the capacity of the tremor form, to uptake a spread data of spread tremor level on the CCPL that was denoted the calm-classification form by the spread perception level system.

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