

# A Study on the Extension and Expansion of Wallace-Ikatura Rule for Tm of Oligonucleotide

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## ABSTRACT

This thesis is mainly aimed at the combination of motion control and image processing techniques for automated welding application. Image recognition is based on a modified Hopfield neural network method. The proposed method in this study has the features of parallel processing, high error tolerance and learning-recalling intelligence capacity. To demonstrate the feasibility and effectiveness of the proposed method, a Cartesian robot arm on which a CCD is rigidly mounted performs precision position control over work pieces. Experimental results indicate that the manipulator is successfully applied to the automated welding work. Moreover, the proposed method significantly enhances reliability, quality and efficiency.

Keywords : Automated Welding Machine ; Neural Network ; Image Vision ; Motion Control ; Servo Motor

## Table of Contents

1. 前言.....	1	2. 文獻回顧.....	2	2.1 解鏈溫度.....	2	2.2 熱力學模型與參數.....	3
2.2.1 最近鄰核酸模型 (NN model, Nearest-neighbor model).....	3	2.2.2 內部單一鹼基配錯 (Internal Single Mismatches).....	10	2.2.3 末端配錯.....	20	2.2.4 Dangling Ends.....	20
2.2.5 髮夾圈環 (Hairpin Loops).....	20	2.2.6 內部圈環 (Internal Loops).....	24	2.2.7 凸起 (Bulges).....	26	2.2.8 共軸堆疊參數 (Coaxial Stacking Parameters).....	27
2.3 非熱力學模型.....	27	2.4 離子環境對核酸穩定性的探討.....	28	2.4.1 鈉離子相關性.....	28	2.4.2 Mg <sup>2+</sup> 、dNTPs及DMSO存在的影響.....	30
3. 材料與方法.....	31	3.1 數據收集與處理.....	31	3.1.1 實驗數據.....	31	3.1.2 由NN model 模擬計算之數據.....	31
3.1.3 實驗數據轉換成標準數據.....	32	3.2 模型推導.....	32	3.2.1 完全配對係數.....	33	3.2.2 單一配錯鹼基之最適函數.....	35
3.2.3 新模型擴充.....	35	3.3 統計數據定義.....	35	3.3.1 判定係數 r <sup>2</sup> .....	36	3.3.2 平均誤差.....	36
3.3.3 標準差.....	37	3.3.4 斜率.....	37	4. 結果與討論.....	38	4.1 新模型推導結果.....	38
4.1.1 完全配對係數分析.....	38	4.1.2 單一配錯鹼基之最適函數.....	38	4.1.3 新模型擴充.....	44	4.2 結果分析.....	44
4.2.1 舊模型 (Wallace-Ikatura rule) 預測值對實驗值.....	44	4.2.2 新模型預測值對實驗值.....	50	4.3 新模型 T <sub>m</sub> 的分析.....	61	4.3.1 %GC 的溫度影響性與序列長度關係.....	61
4.3.2 配錯的溫度影響性與序列長度關係.....	61	4.3.3 兩種不同損失鍵結類型對解鏈溫度的影響.....	62	5. 結論.....	66	參考文獻.....	68
附錄.....	70						

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