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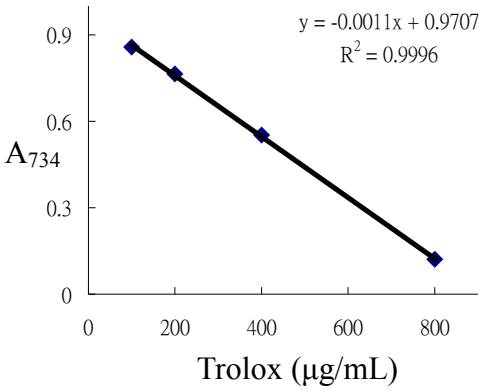
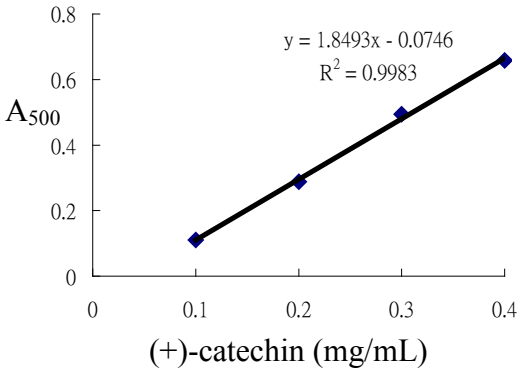
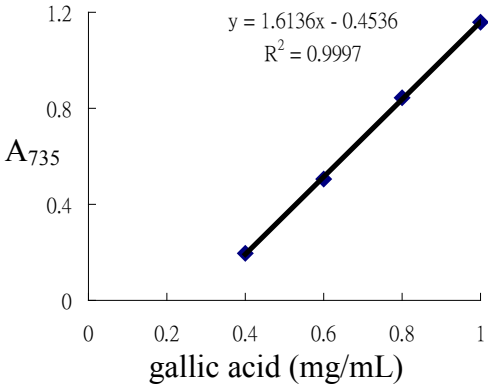
柒、附錄



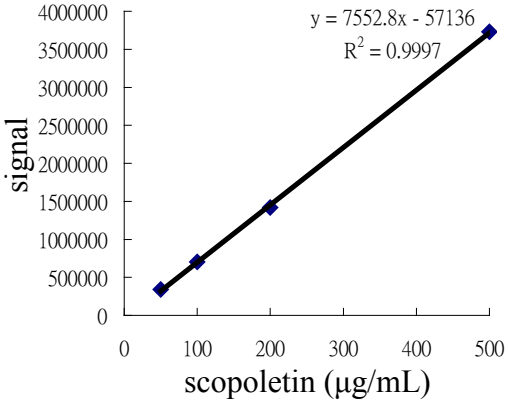
附錄一、Trolox 之標準曲線
Appendix 1. Standard curve of trolox for TEAC.



附錄二、兒茶素之標準曲線
Appendix 2. Standard curve of (+)-catechin for condensed dannin.



附錄三、沒食子酸之標準曲線
Appendix 3. Standard curve of gallic acid for total phenolic compound.



附錄四、東莨菪素之標準曲線
Appendix 4. Standard curve of scopoletin.

附錄五、0、0.6 % pectinase G 生產之諾麗果汁經存後總抗氧化能力變化

Appendix 5. Changes of antioxidant activity of 0 or 0.6 % pectinage G noni juice after storage.

Days of storage		0	10	20	30
0 %		TEAC (trolox μg/mL)			
	4C	3000.3±60.53^{a}	2211.36±39.36^{b}	1750.45±5.25^{e}	1518.24±12.06^{g}
	RTD	3000.3±60.53^{a}	1993.18±34.32^{c}	1612.58±10.50^{f}	1287.94±16.17^{h}
	RTL	3000.3±60.53^{a}	1923.48±25.03^{d}	1550.45±25.31^{g}	1250.36±17.44^{i}
0.6 %					
	4C	3224.55±24.05^{a}	2364.39±11.44^{b}	1839.85±27.77^{e}	1573.39±2.31^{g}
	RTD	3224.55±24.05^{a}	2268.94±14.61^{c}	1836.82±23.62^{e}	1454.61±15.14^{h}
	RTL	3224.55±24.05^{a}	2212.88±26.63^{d}	1686.82±19.81^{f}	1394.00±10.58^{i}

The data are mean values of three determinants.

Values in each line with different letters are significantly different at $p<0.05$ analyzed by Duncan's multiple range test.

附錄六、0、0.6 % pectinase G 生產之諾麗果汁經存後東莨菪素含量變化

Appendix 6. Scopoletin content of 0 or 0.6 % pectinage G noni juice after storage.

Days of storage		0	10	20	30
		scopoletin (μg/mL)			
0 %	4C	73.33±0.84^{d}	108.49±4.22^{ab}	110.54±2.61^{ab}	108.53±2.19^{ab}
	RTD	73.33±0.84^{d}	105.09±4.54^{bc}	113.56±5.02^{a}	110.18±1.99^{ab}
	RTL	73.33±0.84^{d}	109.97±7.75^{ab}	103.49±2.05^{bc}	99.44±3.04^{c}
0.6 %	4C	78.27±0.88^{f}	105.03±4.09^{cde}	99.20±2.93^{de}	97.38±2.43^{e}
	RTD	78.27±0.88^{f}	108.10±6.91^{c}	99.23±2.05^{de}	127.92±3.38^{a}
	RTL	78.27±0.88^{f}	101.71±3.09^{cde}	106.55±11.02^{cd}	120.44±1.60^{b}

The data are mean values of four determinants.

Values in each line with different letters are significantly different at $p<0.05$ analyzed by Duncan's multiple range test.

附錄七、0、0.6 % pectinase G 生產之諾麗果汁經存後總酚含量變化

Appendix 7. Total phenol[A] content of 0 or 0.6 % pectinage G noni juice after storage.

Days of storage		0	10	20	30
		total phenol (μg/mL)			
0 %	4C	1640±75^{a}	1494±89^{b}	1430±40^{bc}	1282±28^{def}
	RTD	1640±75^{a}	1241±25^{ef}	1312±30de	1314±54de
	RTL	1640±75^{a}	1285±70^{def}	1346±47^{cd}	1200±62^{f}
0.6 %	4C	1744±81^{a}	1553±33^{b}	1550±27^{b}	1483±123^{bcd}
	RTD	1744±81^{a}	1322±9^{e}	1353±20^{e}	1477±36^{bcd}
	RTL	1744±81^{a}	1463±103^{cd}	1521±30^{bc}	1435±52^{cd}

[A] Total phenol represents equal concentration of gallic acid.

The data are mean values of four determinants.

Values in each line with different letters are significantly different at $p<0.05$ analyzed by Duncan's multiple range test.

附錄八、0、0.6 % pectinase G 生產之諾麗果汁經存後縮合單寧含量變化

Appendix 8. Condensed tannin[A] content of 0 or 0.6 % pectinage G noni juice after storage.

Days of storage		0	10	20	30
		condensed tannin (μg/mL)			
0 %	4C	178±4^{e}	254±13^{d}	300±9^{c}	324±16^{b}
	RTD	178±4^{e}	320±25^{b}	372±13^{a}	372±21^{a}
	RTL	178±4^{e}	323±14^{b}	374±14^{a}	363±8^{a}
0.6 %	4C	179±13^{f}	259±5^{e}	324±21^{cd}	351±19^{b}
	RTD	179±13^{f}	273±4^{e}	382±16^{a}	353±12^{b}
	RTL	179±13^{f}	319±14^{d}	362±15^{ab}	343±5^{bc}

[A] Condensed tannin represents equal concentration of (+)-catechin.

The data are mean values of four determinants.

Values in each line with different letters are significantly different at $p<0.05$ analyzed by Duncan's multiple range test.

附錄九、細胞存活率測試

Appendix 9. XTT assay

Dilution fold		0	5	10
CE 81T				
	Noni-juice	1.18±0.49%	17.02±4.86%	83.77±3.56%
	EtOH-ppt	60.97±4.54%	106.25±3.64%	104.55±4.82%
	EtOH-sol	0.94±0.42%	37.54±4.84%	88.11±3.74%
HTB-37				
	Noni-juice	1.25±0.28%	13.19±4.19%	74.43±5.45%
	EtOH-ppt	19.90±6.48%	107.51±3.72%	107.14±6.11%
	EtOH-sol	3.22±1.69%	25.97±12.86%	76.65±10.46%

The data are mean values of three determinants.

Values in each line with different letters are significantly different at $p<0.05$ analyzed by Duncan's multiple range test.

附錄十、天野酵素公司其果膠酵素與纖維酵素之特性

Appendix 10. Specifications of pectinase G and cellulase AP3 from Amano Enzyme Inc..

Commercial name		Pectinase G	Cellulase AP3
Official name		Endo-polygalacturonase	Carboxy methyl cellulase
Obtained from		*A. pulverulentus*	*A. niger*
E.C.		3.2.1.15	3.2.1.4
Optimal	pH	4.0	4.5
	Temperature (°C)	60	55
Stability	pH	3-6	2-8
	Temperature (°C)	20-60	30-80
Activity (U/g)		10	36,000
Recommend quantity (%)		0.1-0.5	0.01-0.05
Price (N.T.)		1,300/kg	18,900/kg