APPENDIX

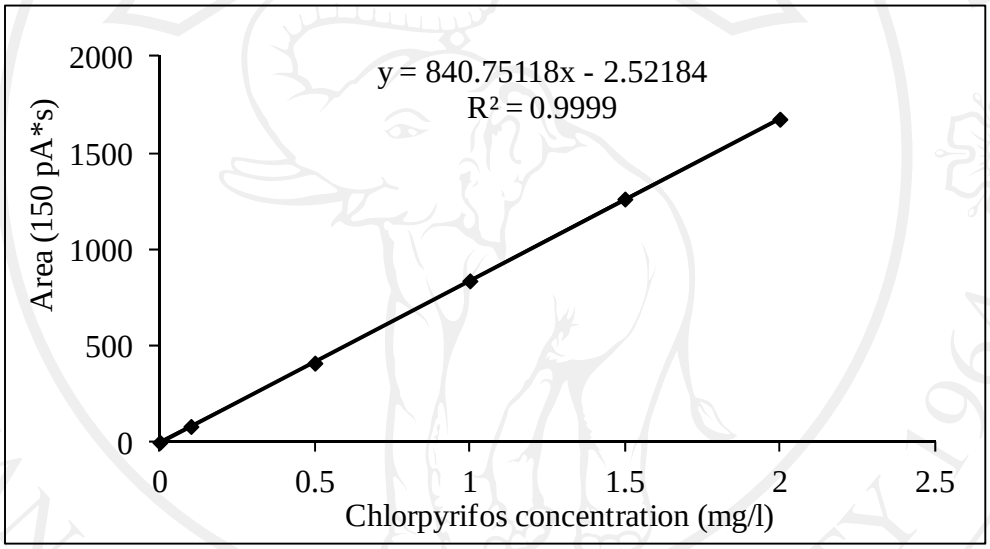

Figure 1 Linearity between standard chlorpyrifos concentration (0.1, 0.5, 1.0, 1.5 and 2.0 mg/l) and area of GC-FPD peak from chromatograph.

Table 1 Percent degradation of chlorpyrifos by ultrasonication, ozonation and the combination treatments.

Treatment	Chlorpyrifos degradation (%)*					
	10 min	**20 min**	**30 min**	**40 min**	**50 min**	**60 min**
Control	1.40±0.83d	5.87±1.28d	7.87±0.85c	10.76±0.39c	11.37±0.44c	11.38±1.54c
108 kHz	19.67±3.07bc	35.11±6.22b	41.20±4.91ab	50.65±12.91ab	54.18±3.78b	55.81±11.18b
400 kHz	17.96±0.10bc	30.19±3.72bc	37.85±4.70b	43.29±6.25b	48.87±7.81b	58.80±9.16b
700 kHz	18.27±3.21bc	25.95±5.13bc	30.73±5.97b	39.62±6.05b	48.24±7.81b	63.05±7.39b
1 MHz	31.09±10.96b	43.13±2.00ab	48.04±13.47ab	61.25±10.49ab	69.03±5.73ab	75.00±5.85b
O_3	38.33±5.17ab	44.10±10.2ab	52.54±13.41ab	57.42±13.76ab	61.52±4.84b	64.54±3.41b
108 kHz/O_3	31.42±10.31b	51.60±7.21ab	58.60±5.61ab	58.06±12.87ab	63.41±4.61b	65.44±3.47b
400 kHz/O_3	41.21±5.05ab	52.20±6.55ab	59.04±4.01ab	57.11±11.07ab	66.93±11.59ab	66.84±9.95b
700 kHz/O_3	29.92±5.11b	49.47±12.01ab	45.92±5.42ab	51.49±5.76ab	59.99±7.75b	71.88±8.37b
1 MHz/O_3	59.92±6.67a	72.03±9.34a	73.98±6.93a	75.90±6.00a	80.48±5.33a	83.77±4.96a

*Means ± SE within the same column followed by the same letter do not differ significantly at p = 0.05 using the least significant difference test.

Table 2 Chlorpyrifos concentration by ultrasonication, ozonation and the combination treatments.

Treatment	Chlorpyrifos concentration (mg/l)*					
	10 min	**20 min**	**30 min**	**40 min**	**50 min**	**60 min**
Control	0.97±0.01a	0.93±0.00a	0.91±0.00a	0.88±0.01a	0.87±0.01a	0.87±0.01a
108 kHz	0.81±0.05ab	0.65±0.04ab	0.59±0.12b	0.49±0.13bc	0.46±0.14bc	0.41±0.05b
400 kHz	0.81±0.03ab	0.71±0.04ab	0.63±0.05ab	0.58±0.07b	0.52±0.03b	0.41±0.03b
700 kHz	0.82±0.04ab	0.75±0.05ab	0.70±0.05ab	0.61±0.07b	0.52±0.07b	0.37±0.07b
1 MHz	0.69±0.10b	0.57±0.08bc	0.52±0.07bc	0.39±0.05bc	0.31±0.05bc	0.25±0.03b
O_3	0.62±0.10bc	0.56±0.09bc	0.47±0.08bc	0.43±0.10bc	0.38±0.04bc	0.33±0.03b
108 kHz/ O_3	0.69±0.09b	0.69±0.06bc	0.48±0.05bc	0.41±0.02bc	0.36±0.04bc	0.34±0.03b
400 kHz/ O_3	0.59±0.04bc	0.48±0.06bc	0.41±0.06bc	0.43±0.10bc	0.33±0.07bc	0.33±0.08b
700 kHz/ O_3	0.69±0.03b	0.49±0.10bc	0.53±0.04bc	0.48±0.04bc	0.40±0.06bc	0.28±0.07b
1 MHz/ O_3	0.41±0.05c	0.28±0.09c	0.27±0.07c	0.24±0.06c	0.20±0.05c	0.17±0.04c

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 3 Temperature of chlorpyrifos after treated with ultrasonication, ozonation and the combination treatments.

Treatment	Temperature of chlorpyrifos (°C)*					
	10 min	20 min	30 min	40 min	50 min	60 min
Control	25.77±0.75e	25.80±0.75e	25.79±0.75d	25.82±0.75e	25.83±0.75d	25.85±0.75c
108 kHz	30.77±0.83ab	32.17±0.73ab	33.00±1.04ab	33.10±1.42ab	33.23±1.45ab	33.40±1.44a
400 kHz	28.97±0.88bcd	29.80±0.68bcd	29.97±0.78cd	30.23±0.35bc	30.23±0.84bc	29.97±0.67b
700 kHz	28.40±0.70bcde	29.47±1.06bcd	29.53±0.82cd	29.60±0.70cd	29.47±0.68c	29.45±0.47b
1 MHz	32.40±0.64a	33.80±0.79a	35.00±0.98a	34.67±0.87a	34.57±0.69a	34.23±0.64a
O_3	27.90±1.28de	27.0±0.87de	27.90±1.30d	27.80±0.95de	27.60±1.40d	27.30±0.80c
108 kHz/O_3	29.10±0.80bcd	28.93±0.87cd	29.67±0.83cd	29.37±1.25cd	29.65±0.92c	29.50±0.95b
400 kHz/O_3	28.03±0.32cde	27.17±0.79de	28.27±0.22cde	27.47±0.94cde	27.67±0.41cd	27.70±1.00bc
700 kHz/O_3	27.47±0.89de	27.33±1.42de	27.73±0.94de	27.30±1.30cde	27.60±1.05cd	27.47±1.23bc
1 MHz/O_3	30.33±0.69ab	30.77±0.85bc	30.80±0.68bc	30.57±1.04bc	30.53±1.03bc	29.97±0.96b

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 4 pH of chlorpyrifos after treated with ultrasonication, ozonation and the combination treatments.

Treatment	pH of chlorpyrifos*					
	10 min	**20 min**	**30 min**	**40 min**	**50 min**	**60 min**
Control	7.46±0.13a	7.46±0.13a	7.47±0.13a	7.46±0.13a	7.45±0.13a	7.47±0.13a
108 kHz	6.17±0.04bcd	6.14±0.17bcd	5.98±0.21bcd	6.09±0.23b	6.11±0.23b	5.84±0.11b
400 kHz	6.05±0.04cd	5.95±0.13def	5.75±0.11bcd	5.91±0.13bc	5.73±0.17bc	5.51±0.05bc
700 kHz	6.10±0.28bcd	6.01±0.17cde	5.69±0.15cd	5.77±0.24bc	5.53±0.17bc	5.45±0.11bc
1 MHz	5.87±0.37cd	5.81±0.30ef	5.30±0.22de	5.31±0.20cd	5.08±0.15cd	4.78±0.16cd
O_3	6.22±0.14bc	6.45±0.25bcde	6.11±0.06bc	6.33±0.18b	5.87±0.19bc	5.61±0.74b
108 kHz/O_3	6.85±0.35ab	6.77±0.36b	6.08±0.48bc	6.34±0.46b	6.13±0.15b	5.63±0.10b
400 kHz/O_3	6.84±0.26ab	6.64±0.23bcd	6.36±0.23bc	6.28±0.24b	5.81±0.42bc	6.19±0.10b
700 kHz/O_3	6.66±0.30bc	6.71±0.19bc	6.53±0.31b	6.44±0.23b	6.05±0.25b	6.14±0.10b
1 MHz/O_3	6.41±0.19d	6.30±0.12f	4.85±0.16e	4.74±0.05d	4.62±0.04d	4.49±0.06d

*Means ± SE within the same column followed by the same letter do not differ significantly at p = 0.05 using the least significant difference test.

Table 5 ORP value of chlorpyrifos after treated with ultrasonication, ozonation and the combination treatments.

Treatment	ORP value of chlorpyrifos (mV)*					
	10 min	20 min	30 min	40 min	50 min	60 min
Control	-25.00±7.79d	-23.33±7.79f	-22.33±7.79e	-20.33±7.79d	-18.33±7.79d	-18.33±7.79d
108 kHz	58.50±2.85bc	61.20±10.97bcde	70.53±12.93bcd	64.33±13.66c	66.13±12.31c	79.30±6.81c
400 kHz	65.57±2.89bc	70.10±5.97bc	83.57±6.74bc	74.87±7.88bc	83.50±8.16bc	98.50±2.46bc
700 kHz	62.67±16.52bc	68.33±9.93bcd	87.67±8.78bc	83.23±14.08bc	96.97±8.53bc	101.23±6.96bc
1 MHz	76.70±22.23ab	81.17±18.77ab	112.87±13.27ab	111.97±12.22ab	125.63±11.48ab	143.93±9.45ab
O_3	55.07±8.84bc	41.20±15.11bcde	61.13±3.50cd	49.30±10.79c	75.50±9.21c	98.50±0.49bc
108 kHz/O_3	17.83±5.25c	22.63±21.71e	63.73±28.81cd	48.80±27.79c	61.50±25.65c	90.77±44.31c
400 kHz/O_3	25.60±8.82c	30.33±13.42cde	47.6±13.92cd	51.33±14.51c	80.07±25.13bc	56.97±5.83c
700 kHz/O_3	29.33±17.93c	26.20±11.38de	36.57±18.43d	42.50±13.54c	64.57±14.98c	59.93±5.76c
1 MHz/O_3	103.93±11.20a	111.37±6.93a	138.53±9.31a	144.50±2.82a	159.33±2.18a	151.50±3.70a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Preparation of mobile phase for anion analysis by IC

Sodium carbonate anhydrous (Na_2CO_3) 3.4096 g (% assay 99.9 %) add Sodium carbonate anhydrous ($NaHCO_3$) 0.8426 g (assay 97.7 %) were dissolved in deionized water volume 100 ml. The solution was mobile phase stock (3.2 mM of Na_2CO_3 and 1.0 mM of $NaHCO_3$). The stock solution 20 ml was diluted with deionized water to be 2 l, and then the solution was degassing sonication for 25 min.

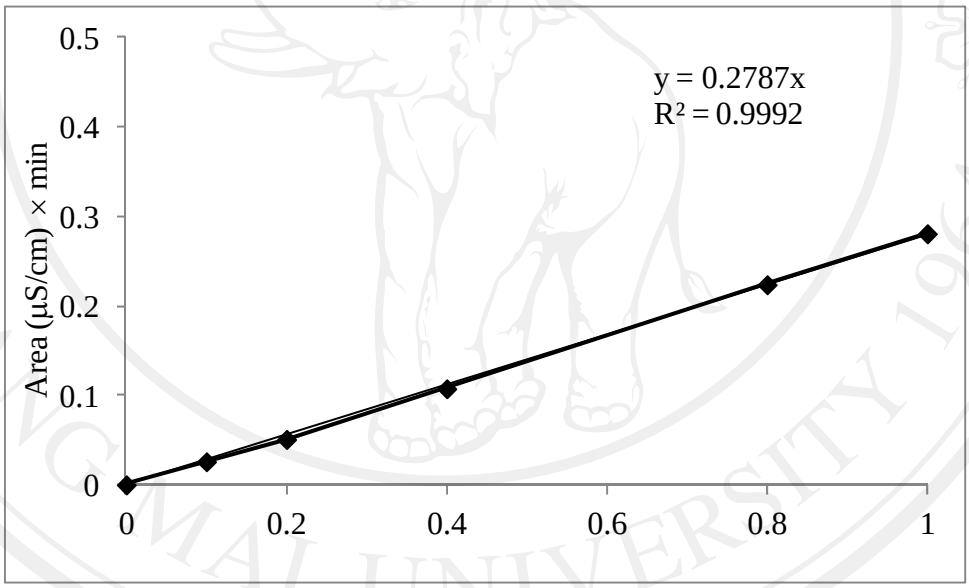

Figure 2 Linerity between standard chloride concentration (0.1, 0.2, 0.4, 0.8 and 1.0 mg/l) and area of chloride ion peak from IC.

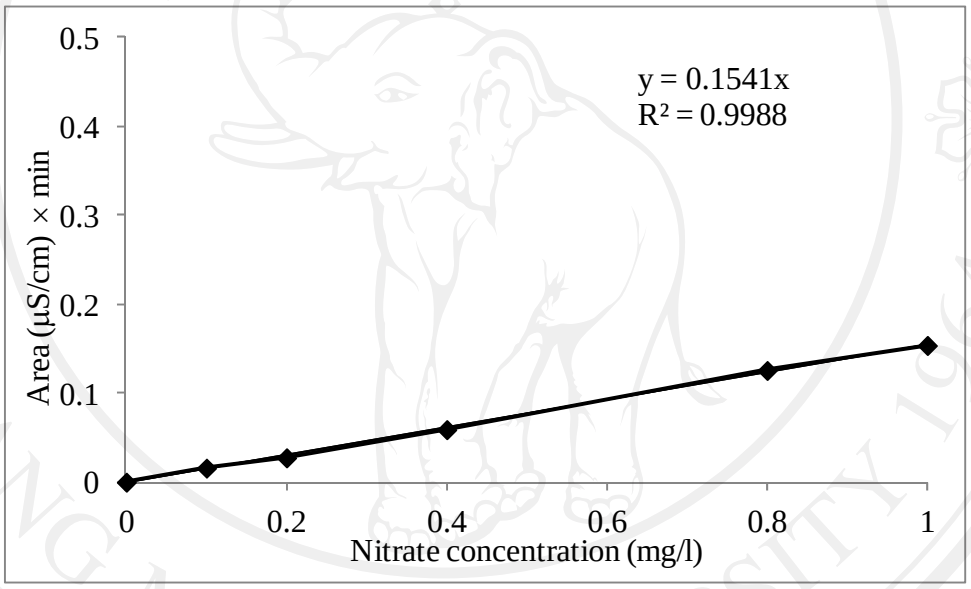

Figure 3 Linerity between standard nitrate concentration (0.1, 0.2, 0.4, 0.8 and 1.0 mg/l) and area of nitrate ion peak from IC.

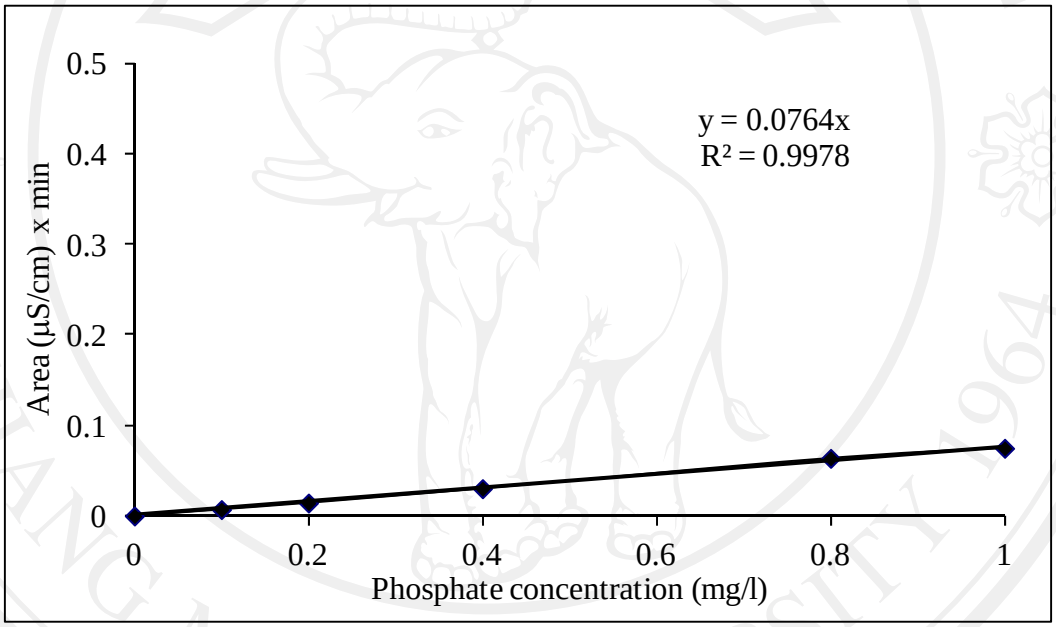

Figure 4 Linerity between standard phosphate concentration (0.1, 0.2, 0.4, 0.8 and 1.0 mg/l) and area of phosphate ion peak from IC.

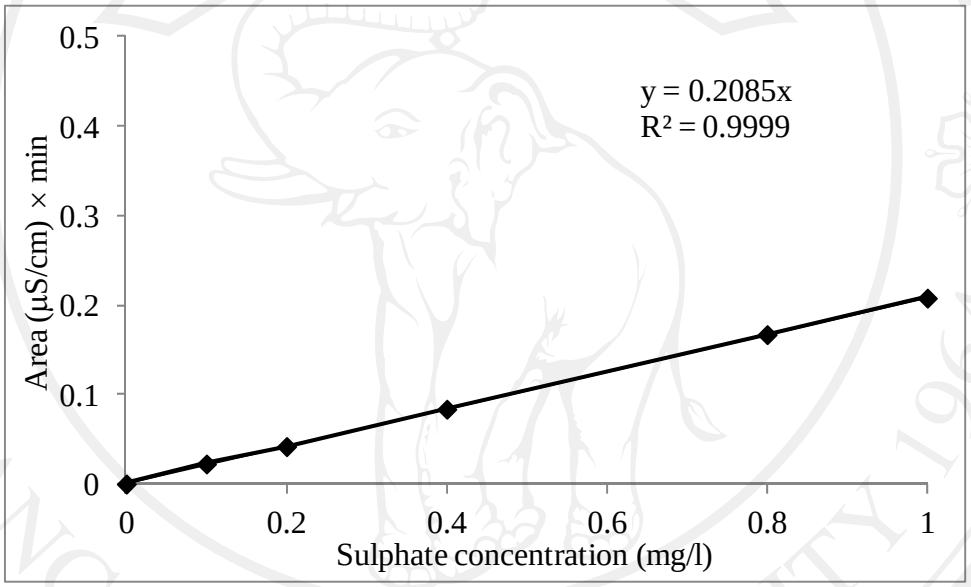

Figure 5 Linerity between standard sulphate concentration (0.1, 0.2, 0.4, 0.8 and 1.0 mg/l) and area of sulphate ion peak from IC.

Table 6 Chloride concentration of chlorpyrifos after treated with ultrasonication, ozonation and the combination treatments.

Treatment	Chloride concentration (mg/l)*		
	20 min	40 min	60 min
Control	0.03±0.01f	0.03±0.01d	0.03±0.01d
108 kHz	0.13±0.00b	0.16±0.02bc	0.17±0.04bc
400 kHz	0.11±0.01c	0.14±0.02c	0.16±0.02c
700 kHz	0.10±0.00cd	0.14±0.01c	0.19±0.01bc
1 MHz	0.13±0.00e	0.15±0.00bc	0.18±0.01bc
O_3	0.09±0.00d	0.16±0.00bc	0.21±0.01abc
108 kHz/O_3	0.14±0.00b	0.17±0.01bc	0.21±0.01abc
400 kHz/O_3	0.14±0.01b	0.18±0.01b	0.21±0.01abc
700 kHz/O_3	0.11±0.00c	0.16±0.00bc	0.22±0.02ab
1 MHz/O_3	0.21±0.00a	0.23±0.01a	0.26±0.01a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 7 Nitrate concentration of chlorpyrifos after treated with ultrasonication, ozonation and the combination treatments.

Treatment	Nitrate concentration (mg/l)*		
	20 min	40 min	60 min
Control	0.03±0.02b	0.03±0.02ab	0.03±0.02c
108 kHz	0.02±0.01b	0.05±0.01ab	0.07±0.03abc
400 kHz	0.05±0.04ab	0.05±0.02ab	0.06±0.00bc
700 kHz	0.02±0.01b	0.05±0.02ab	0.08±0.01abc
1 MHz	0.03±0.01b	0.05±0.01ab	0.08±0.00abc
O_3	0.09±0.03ab	0.13±0.01a	0.13±0.02ab
108 kHz/O_3	0.08±0.02ab	0.11±0.06ab	0.13±0.02ab
400 kHz/O_3	0.09±0.00ab	0.11±0.01ab	0.12±0.04ab
700 kHz/O_3	0.09±0.03ab	0.10±0.00ab	0.14±0.05ab
1 MHz/O_3	0.12±0.01a	0.12±0.04a	0.15±0.01a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 8 Sulphate concentration of chlorpyrifos after treated with ultrasonication, ozonation and the combination treatments.

Treatment	Sulphate concentration (mg/l)*		
	20 min	40 min	60 min
Control	0.00±0.00a	0.00±0.00b	0.00±0.00b
108 kHz	0.02±0.01a	0.03±0.03b	0.10±0.08ab
400 kHz	0.04±0.04a	0.01±0.01b	0.08±0.06ab
700 kHz	0.03±0.07a	0.02±0.02b	0.05±0.05ab
1 MHz	0.02±0.01a	0.04±0.03b	0.10±0.09ab
O_3	0.03±0.04a	0.06±0.01b	0.06±0.02ab
108 kHz/O_3	0.02±0.02a	0.03±0.02b	0.05±0.00ab
400 kHz/O_3	0.04±0.01a	0.03±0.02b	0.07±0.03ab
700 kHz/O_3	0.04±0.02a	0.06±0.03b	0.12±0.05ab
1 MHz/O_3	0.05±0.01a	0.15±0.06a	0.24±0.05a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 9 Percent degradation of chlorpyrifos on bird chilli by ultrasonication, ozonation and the combination treatments.

Treatment	Chlorpyrifos degradation on chilli (%)*					
	10 min	20 min	30 min	40 min	50 min	60 min
Control	0.62±1.29d	0.95±1.14d	6.31±4.20c	11.06±2.46b	21.96±9.59c	27.54±3.01d
108 kHz	22.06±2.40c	32.97±6.75bc	36.13±7.16ab	39.20±6.52a	41.94±5.50bc	47.36±2.93c
400 kHz	24.43±2.93c	29.70±4.15c	32.32±4.88b	44.01±7.66a	50.77±7.12ab	53.81±6.49bc
700 kHz	25.64±2.58cd	28.72±3.60c	33.14±4.41ab	39.28±4.79a	45.39±3.50ab	48.28±2.40c
1 MHz	38.51±5.79abc	37.77±7.90ab	39.34±8.12ab	47.42±8.50a	51.23±6.30ab	62.44±6.56abc
O_3	23.25±1.71c	25.25±1.12c	32.83±3.47b	42.07±4.30a	41.70±6.76bc	52.48±7.26c
108 kHz/O_3	42.78±12.30abc	44.89±12.76abc	51.55±11.87ab	51.02±10.34a	57.63±10.34ab	69.44±7.55ab
400 kHz/O_3	43.54±10.18abc	48.84±10.48abc	49.95±10.40ab	58.24±9.54a	61.58±9.29ab	69.49±6.40ab
700 kHz/O_3	48.41±12.41ab	56.19±10.16ab	59.25±8.96a	60.39±9.42a	63.53±8.17ab	71.15±4.34ab
1 MHz/O_3	50.42±10.69a	58.52±9.38a	59.81±8.63a	62.70±7.52a	66.27±2.15a	76.81±1.52a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 10 Chlorpyrifos concentration residue on bird chilli after treated with ultrasonication and ozonation during storage at 13°C for 4 weeks.

Treatment	Chlorpyrifos concentration residue on bird chilli (mg/l)*					
	10 min	20 min	30 min	40 min	50 min	60 min
Control	1.13±0.03a	1.11±0.00a	1.03±0.01a	0.98±0.01a	0.85±0.03a	0.80±0.00a
1 MHz	0.69±0.09b	0.70±0.10b	0.68±0.11b	0.59±0.12b	0.55±0.09b	0.42±0.09b
O_3	0.85±0.05c	0.83±0.04b	0.75±0.07b	0.64±0.07b	0.65±0.10b	0.53±0.10b
1 MHz/O_3	0.56±0.07cd	0.47±0.06c	0.46±0.06c	0.42±0.05bc	0.38±0.05c	0.26±0.03c

*Means ± SE within the same column followed by the same letter do not differ significantly at p = 0.05 using the least significant difference test.

Table 11 Percentage of weight loss of bird chilli after treated with ultrasonication and ozone treatment for 60 min for storage at 13°C for 4 weeks.

Treatment	Percent weight loss of bird chilli (%)*			
	1 week	2 weeks	3 weeks	4 weeks
Control	3.29±0.46a	7.46±1.16a	11.65±0.83a	15.74±1.36a
1 MHz	3.43±0.36a	8.29±0.96a	12.97±1.48a	17.68±1.96a
O_3	3.19±0.18a	7.64±0.27a	11.71±0.56a	15.78±0.87a
1 MHz/O_3	3.42±0.42a	8.21±1.05a	13.00±0.57a	17.92±1.27a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 12 Disease incidence of chilli after treated with ultrasonication and ozone treatment for 60 min for storage at 13°C for 4 weeks.

Treatment	Disease incidence of chilli (score)*			
	1 week	2 weeks	3 weeks	4 weeks
Control	1.00±0.00a	1.00±0.00a	1.53±0.13a	2.60±0.16a
1 MHz	1.00±0.00a	1.00±0.00a	1.00±0.00b	2.07±0.12b
O_3	1.00±0.00a	1.00±0.00a	1.60±0.13a	2.00±0.17b
1 MHz/O_3	1.00±0.00a	1.00±0.00a	1.00±0.00b	1.47±0.17c

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 13 L* value of chilli after treated with ultrasonication and ozone treatment for 60 min for storage at 13°C for 4 weeks.

Treatment	L* value of chilli*				
	0 week	1 week	2 weeks	3 weeks	4 weeks
Control	46.45±1.61a	47.98±1.04ab	49.77±1.16a	45.51±1.17b	47.63±0.99a
1 MHz	47.99±1.11a	47.06±0.56ab	49.76±1.46a	49.69±1.15a	49.80±0.55a
O_3	49.26±0.55a	49.42±1.22b	50.31±0.75a	48.74±1.17ab	50.09±0.33a
1 MHz/O_3	49.40±1.04a	50.05±0.33a	50.78±1.30a	48.05±0.57ab	49.39±2.21a

*Means ± SE within the same column followed by the same letter do not differ significantly at p = 0.05 using the least significant difference test.

Table 14 a* value of chilli after treated with ultrasonication and ozone treatment for 60 min for storage at 13°C for 4 weeks.

Treatment	a* value of chilli*				
	0 week	1 week	2 weeks	3 weeks	4 weeks
Control	-5.91±0.31a	-7.18±0.78a	-6.45±0.63a	-11.06±0.96a	-8.30±1.32a
1 MHz	-7.05±0.66ab	-6.31±0.52a	-7.95±0.91a	-10.32±0.32a	-10.28±0.72a
O_3	-7.36±0.14ab	-7.73±0.74a	-8.05±0.37a	-10.81±1.26a	-9.14±0.72a
1 MHz/O_3	-6.68±0.29a	-8.45±0.82a	-8.18±0.70a	-9.63±0.98a	-9.54±0.10a

*Means ± SE within the same column followed by the same letter do not differ significantly at p = 0.05 using the least significant difference test.

Table 15 b* value of chilli after treated with ultrasonication and ozone treatment for 60 min for storage at 13°C for 4 weeks. Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Treatment	b* value of chilli*				
	0 week	1 week	2 weeks	3 weeks	4 weeks
Control	7.50±1.37a	10.17±0.77ab	8.67±1.37a	15.74±1.72a	12.78±2.23a
1 MHz	8.74±2.81a	8.02±0.68b	10.63±1.50a	15.10±0.09a	17.25±2.99a
O_3	9.58±0.32a	10.82±1.11ab	11.31±0.91a	16.84±2.12a	15.11±1.69a
1 MHz/O_3	8.97±0.60a	12.20±1.07a	10.07±1.72a	14.37±2.03a	14.26±0.48a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 16 Total sensory quality evaluation of chilli after treated with ultrasonication and ozone treatment for 60 min during storage at 13°C for 4 weeks.

Sensory quality	Treatment	Total sensory quality evaluation of chilli (score)*			
		1 week	2 weeks	3 weeks	4 weeks
Appearance	Control	8.53±0.17a	6.13±0.46c	5.13±0.46c	3.20±0.38b
	1 MHz	8.87±0.09a	7.73±0.18b	7.53±0.19ab	4.93±0.28a
	O_3	8.78±0.12a	7.87±0.22b	6.87±0.22b	5.00±0.40a
	1 MHz/O_3	8.80±0.11a	8.73±0.12a	8.27±0.15a	5.00±0.52a
Color	Control	8.20±0.20b	7.93±0.27b	7.00±0.29c	5.00±0.28c
	1 MHz	8.67±0.13a	8.47±0.17a	8.20±0.20ab	7.00±0.20a
	O_3	8.60±0.13ab	8.53±0.17ab	7.60±0.21bc	6.27±0.32ab
	1 MHz/O_3	8.60±0.13ab	8.53±0.13a	8.27±0.15a	6.00±0.26b
Odor	Control	8.40±0.27a	6.20±0.22c	5.20±0.22c	3.20±0.31b
	1 MHz	8.53±0.13a	8.40±0.16a	7.93±0.23a	4.67±0.36a
	O_3	8.53±0.22a	7.40±0.31b	6.27±0.34b	5.27±0.45a
	1 MHz/O_3	8.67±0.13a	8.53±0.13a	8.13±0.19a	5.67±0.49a
Acceptability	Control	8.53±0.13a	7.33±0.36c	6.40±0.39b	3.27±0.32b
	1 MHz	8.60±0.13a	8.27±0.12ab	8.07±0.15a	5.00±0.63a
	O_3	8.67±0.13a	7.60±0.25bc	6.60±0.25b	5.07±0.45a
	1 MHz/O_3	8.67±0.13a	8.47±0.13a	8.20±0.17a	5.80±0.55a
Total	Control	8.42±0.19a	6.90±0.33c	5.93±0.34c	3.67±0.32b
	1 MHz	8.67±0.12a	8.22±0.16ab	7.93±0.19a	5.40±0.37a
	O_3	8.65±0.15a	7.85±0.24b	6.84±0.26b	5.40±0.41a
	1 MHz/O_3	8.69±0.12a	8.57±0.13a	8.22±0.17a	5.62±0.46a

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

Table 17 Chlorpyrifos concentration residue on chilli after treated with ultrasonication and ozonation during storage at 13°C for 4 weeks.

Treatment	Chlorpyrifos concentration residue on chilli during storage (mg/l)*				
	0 week	**1 week**	**2 weeks**	**3 weeks**	**4 weeks**
Control	0.80±0.00a	0.48±0.05a	0.42±0.06a	0.45±0.05a	0.30±0.02a
1 MHz	0.42±0.05b	0.46±0.04a	0.34±0.06ab	0.36±0.02a	0.22±0.02b
O_3	0.53±0.06b	0.38±0.04a	0.40±0.04a	0.35±0.06a	0.24±0.01b
1 MHz/O_3	0.26±0.01c	0.21±0.01b	0.23±0.02b	0.17±0.01b	0.15±0.01c

*Means ± SE within the same column followed by the same letter do not differ significantly at p = 0.05 using the least significant difference test.

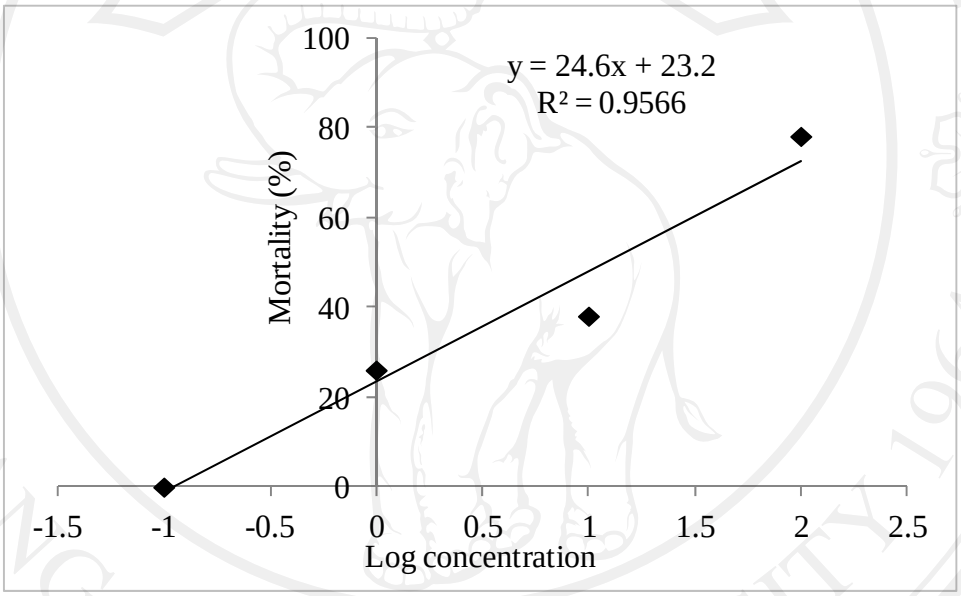

Figure 6 Mortality of brine shrimp after treated with standard chlorpyrifos various concentration at 0, 0.1, 1.0, 10.0 and 100 mg/l for 18 h.

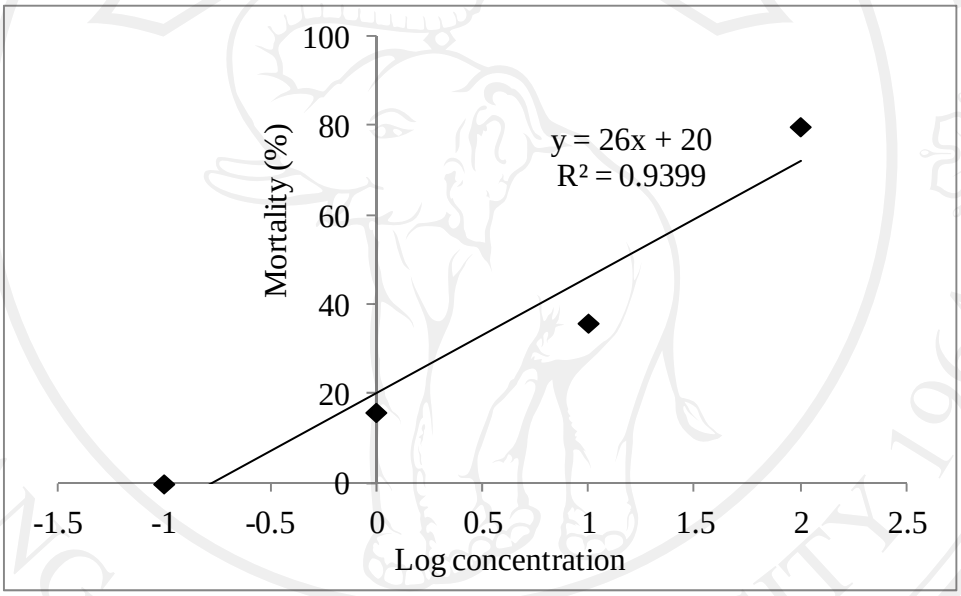

Figure 7 Mortality of brine shrimp after treated chlorpyrifos solution with ultrasonication various concentration at 0, 0.1, 1.0, 10.0 and 100 mg/l for 18 h.

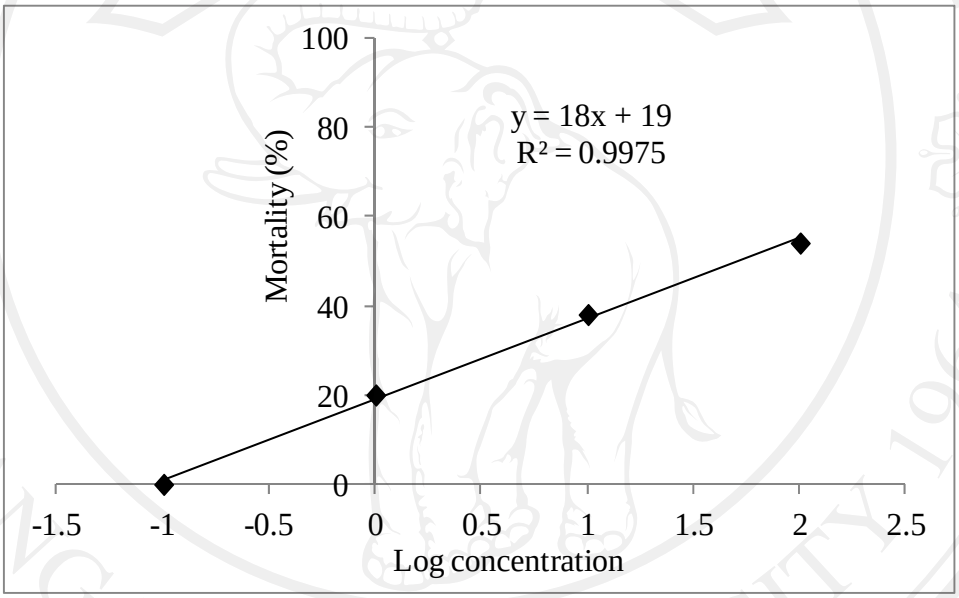

Figure 8 Mortality of brine shrimp after treated chlorpyrifos solution with ozonation various concentration at 0, 0.1, 1.0, 10.0 and 100 mg/l for 18 h.

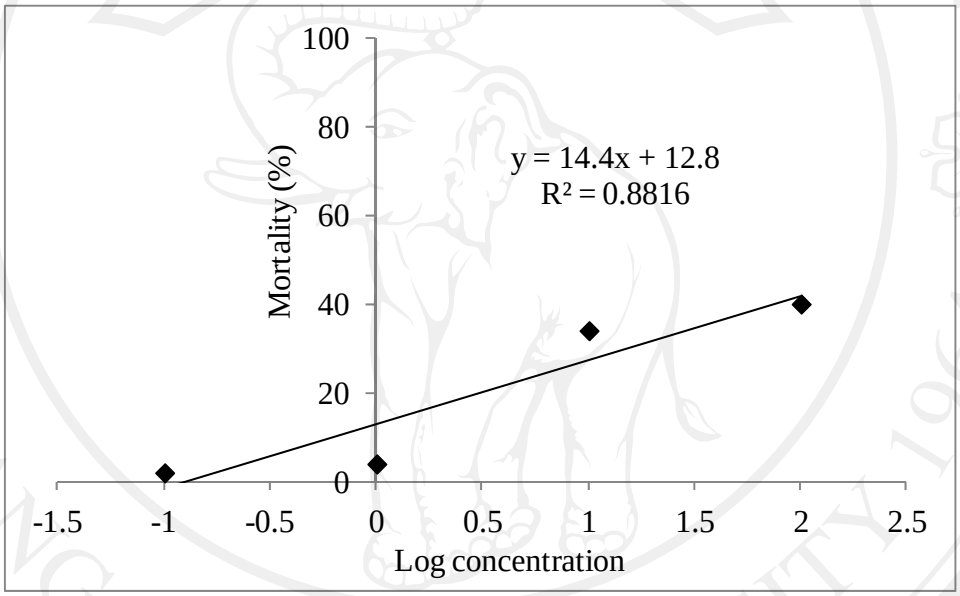

Figure 9 Mortality of brine shrimp after treated chlorpyrifos solution with ultrasonication combined ozonation various concentration at 0, 0.1, 1.0, 10.0 and 100 mg/l for 18 h.

Table 18 Mortality of brine shrimp after treated with wastewater from chilli washing using ultrasonication, ozonation and the combination treatments.

Treatment	Mortality of brine shrimp (%)*			
	0 h	6 h	12 h	18 h
Control	0.00±0.00a	0.00±0.00a	4.00±2.45a	12.00±3.74a
1 MHz	0.00±0.00a	0.00±0.00a	2.00±2.00a	6.00±4.00ab
O_3	0.00±0.00a	0.00±0.00a	2.00±2.00a	12.00±2.00a
1 MHz/O_3	0.00±0.00a	0.00±0.00a	0.00±0.00a	2.00±1.00b

*Means ± SE within the same column followed by the same letter do not differ significantly at $p = 0.05$ using the least significant difference test.

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Publications

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