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## Abbreviations and Symbols

$\mu\text{A}$	Micro-Angstrom
$a^*$	Redness (+ redness, - greenness)
ACN	Acetonitrile
ADI	Acceptable daily intake
<i>a.i.</i>	Active ingredient
av.	Average
$b^*$	Yellowness (+ yellowness, - blueness)
$C^*$	Chroma
CA	Mango cultivar 'Chok Anan'
cm	Centimeter
CV	Coefficient of variant
cv.	Cultivar
cvs.	Cultivars
DBZ	Diclobutrazol
$^{\circ}\text{C}$	Degree Celsius
ECD	Electron capture detector
EFC	Electronic flow control
EI	Electron impact ionization
eV	Electron Volts
F	Dimensionless fruit firmness
FB	Form sheet, table sheet
FTF	Flutriafol
Fw	Fresh weight
<i>g a.i.</i>	Gram active ingredient
g	Gram
$\mu\text{g}$	Microgram
GC	Gas chromatography
GLC	Gas liquid chromatography

h	Hour
H°	Hue angle
H <sub>2</sub> O	Water
HCZ	Hexaconazole
He	Helium
HPLC	High pressure liquid chromatography
I.D.	Internal diameter
kg	Kilogram
KS	Mango cultivar 'Khiew Sawoey'
L	Litter
L*	Brightness
LC	Liquid chromatography
ln	Logarithm
LSD	Least significant differences
m <sup>2</sup>	Square Meter
m/z	Mass/charge
mg	Milligram
min	Minute
MJU	Mae Jo University field
mL	Milliliter
mm	Millimeter
MRL	Maximum residues limit
MS	Mass spectrometry
MS-excel®	Microsoft excel
N	Newton
ND, NM	Mango cultivar 'Nam Dok Mai'
NPD	Nitrogen-phosphorus detector
P	Significance level
PA	Polyacrylate fiber
PBZ	Paclobutrazol
ppm	Part per million
p.s.i.	Pound per square inch

Pro-Ca	Prohexadione-calcium
R <sup>2</sup>	Coefficient of determination
RH	Relative humidity
RICs	Recalculated Ion Current or Reconstructed Ion Chromatograms
RPI	Ripening index, dimensionless, $RPI = \ln(100 \cdot F / (TSS/TA))$
rpm	Round per minute
RT	Ripening time in days
S.D.	Standard deviation
SIM	Selected-ion monitoring
SPME	Solid-phase microextraction
SPSS	Statistic package for social and science software
SS	San Sai orchard
TA	Total acidity
Temp.	Temperature
TR	Treatment
TS	Total solid
TSS	Total soluble solid in °Brix (i.e. g/100g)
TSS/TA	Sugar-acid ratio
T <sub>max</sub>	Maximum of thickness
T <sub>min</sub>	Minimum of thickness
U	Unit
UV	Ultraviolet
v/v	Volume: volume
w/v	Weight: volume
w/w	Weight: weight
WL	Weight loss
W <sub>max</sub>	Maximum of width
W <sub>min</sub>	Minimum of width

## PRELIMINARY REMARKS

The following list comprises the papers already published in international and Thai national peer reviewed journals and all scientific contributions to international and Thai national symposiums as a part of the present Ph.D. thesis.

### Publications

1. **Jaradrattanapaiboon, A.**, Sruamsiri, P., Leitenberger, M., Neidhart, S., Carle, R. 2006. The effect of cultivars and mango ripening stage on recovery percentage of paclobutrazol determined by solid-phase microextraction (SPME) technique with gas chromatography-mass spectrometry (GC-MS), Submitted paper, The 32<sup>nd</sup> Congress on Science and Technology of Thailand. 10 -12 October 2006. Queen Sirikit National Convention Centre, Bangkok, Thailand. 4 p. [Online]. Available: [http://www.scisoc.or.th/stt/32/sec\\_f/paper/stt32\\_F\\_F0012.pdf](http://www.scisoc.or.th/stt/32/sec_f/paper/stt32_F_F0012.pdf)
2. **Jaradrattanapaiboon, A.**, Sruamsiri, P., Reintjes, K., Leitenberger, M., Jönes, B., Neidhart, S., and Carle, R. 2007. Method Validation and Investigation of Paclobutrazol in Soil Using SPME-GC-MS Technique. Chiang Mai University Journal (Accepted).
3. อนุวัฒน์ จรัสรัตนไพบูลย์, พิทยา สรววมศิริ. 2549. ผลกระทบของสารพาโคลบิวทราโซลต่อพฤติกรรมการสุกหลังการเก็บเกี่ยวของผลมะม่วง. วารสารวิทยาศาสตร์เกษตร ปีที่ 37, น.6 พิเศษ (พ.ย. - ธ.ค. 49): 17-20. Available: <http://wulib.wu.ac.th/cgi-bin/vtls02.web.gateway?authority=0221-78180&conf=120000>



## Oral presentation

1. **Jaradrattanapaiboon, A.,** Sruamsiri, P., Leitenberger, M., Neidhart, S., Carle, R. 2006. The effect of cultivars and mango ripening stage on recovery percentage of paclobutrazol determined by solid-phase microextraction (SPME) technique with gas chromatography-mass spectrometry (GC-MS). Oral presentation. The 32<sup>nd</sup> Congress on Science and Technology of Thailand. 10 -12 October 2006. Queen Sirikit National Convention Centre, Bangkok, Thailand. [Online]. Available: [http://www.scisoc.or.th/stt/32/sec\\_f/paper/stt32\\_F\\_F0012.pdf](http://www.scisoc.or.th/stt/32/sec_f/paper/stt32_F_F0012.pdf)

2. อนุวัฒน์ จรัสรัตนไพบูลย์, พิทยา สรวมศิริ. 2549. ผลกระทบของสารพาโคลบิวทราโซลต่อพฤติกรรมการสุกหลังการเก็บเกี่ยวของผลมะม่วง. ภาควิชาพืชสวน, การประชุมพืชสวนแห่งชาติ ครั้งที่ 6. 7 – 10 พฤศจิกายน 2549, โรงแรมโลตัสปางสวนแก้ว, เชียงใหม่.