

Supplementary Notes

Development of Shelf Life Kinetic Model for Fresh Rainbow Trout
(*Oncorhynchus Mykiss*) Fillets Stored under Modified Atmosphere
Packaging

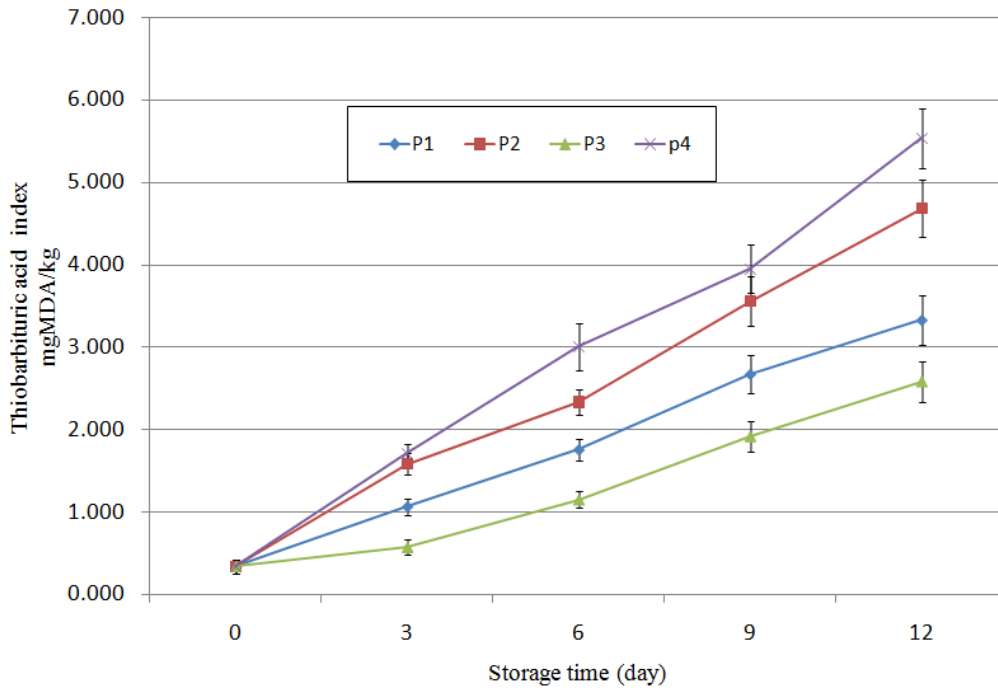


Fig. Sup-1. The trend of the thiobarbituric acid index (mg MDA/kg) in rainbow trout stored at four types of modified atmosphere packaging (including P₁:80%CO₂/10%N₂/10%O₂, P₂:60%CO₂/20%N₂/20%O₂, P₃:60%CO₂/40%N₂/20%O₂, and P₄:40%CO₂/30%N₂/30%O₂) during storage time

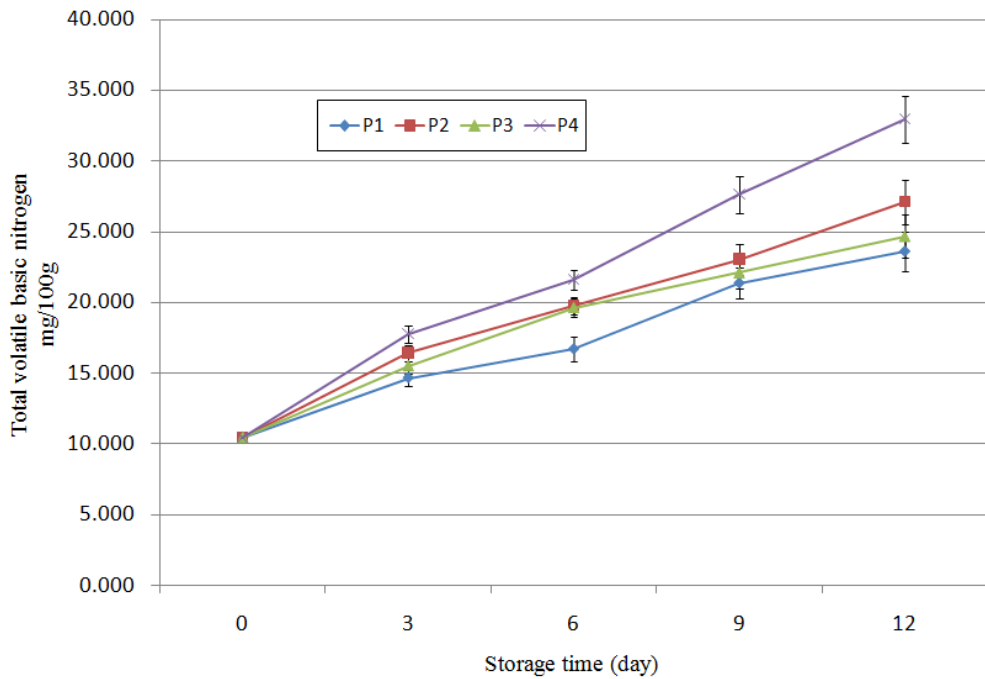


Fig. Sup-2. The variation in the total volatile basic nitrogen (mg/100g) in rainbow trout stored in four types of modified atmosphere packaging (including P₁:80%CO₂/10%N₂/10%O₂, P₂:60%CO₂/20%N₂/20%O₂, P₃:60%CO₂/40%N₂/20%O₂, and P₄:40%CO₂/30%N₂/30%O₂) during storage time

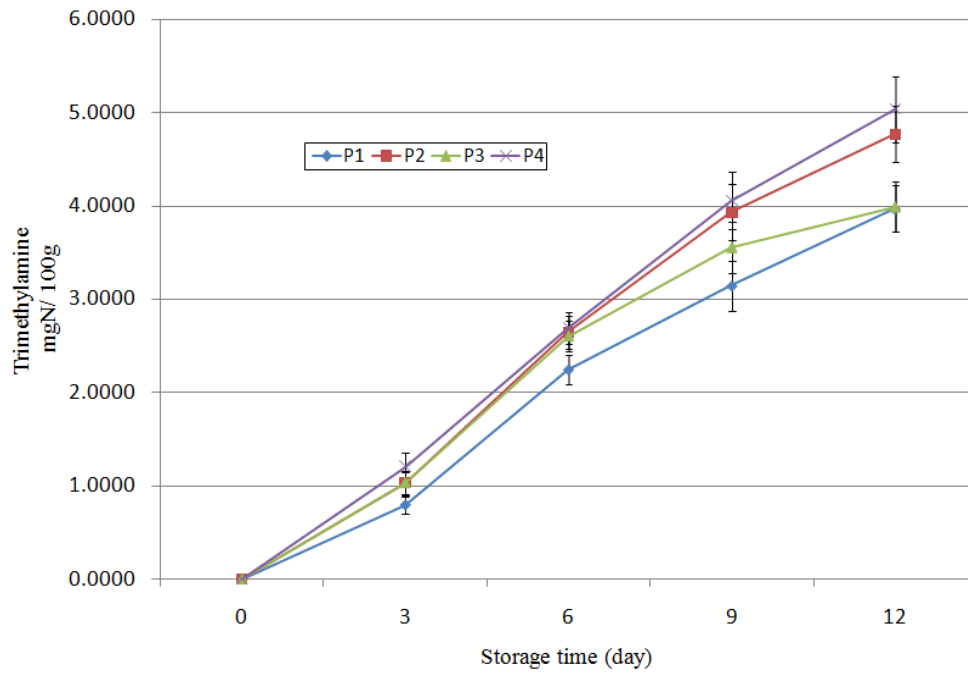


Fig. Sup-3. The trend of trimethylamine variations (mgN/100g) in rainbow trout fish stored in four types of modified atmosphere packaging (including P₁:80%CO₂/10%N₂/10%O₂, P₂:60%CO₂/20%N₂/20%O₂, P₃:60%CO₂/40%N₂/20%O₂, and P₄:40%CO₂/30%N₂/30%O₂) during storage time

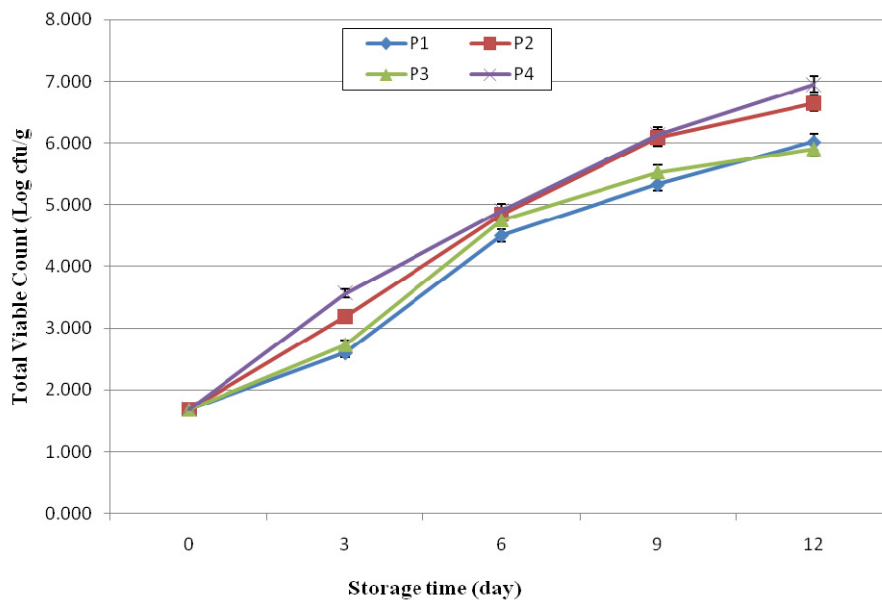


Fig. Sup-4. Changes of the total viable count (log cfu/g) in rainbow trout stored in four types of modified atmosphere packaging (including P₁:80%CO₂/10%N₂/10%O₂, P₂:60%CO₂/20%N₂/20%O₂, P₃:60%CO₂/40%N₂/20%O₂, and P₄:40%CO₂/30%N₂/30%O₂) during storage time

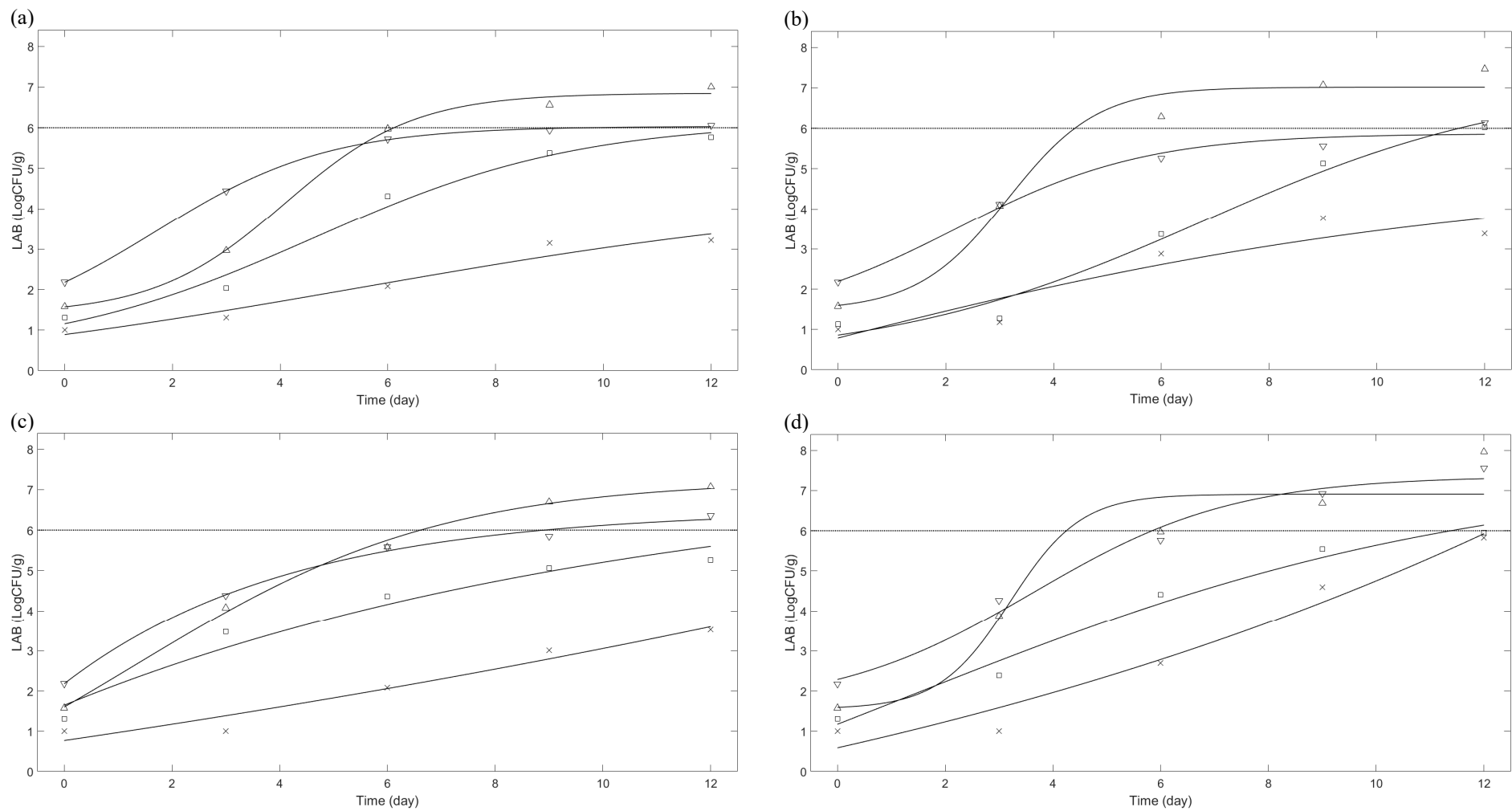


Fig. Sup-5. The growth curve of the lactic acid bacteria (log cfu/g) in the rainbow trout for (a) P₁:80%CO₂/10%N₂/10%O₂, (b) P₂:60%CO₂/20%N₂/20%O₂, (c) P₃:60%CO₂/40%N₂/20%O₂, and (d) P₄:40%CO₂/30%N₂/30%O₂, at the temperatures 0, 5, 10, and 15 ° C

Table Sup-1

Average sensory scores of rainbow trout at different temperatures

Storage temperature	0 °C	5 °C	10 °C	15 °C
Raw fillets appearance	8.34±0.08 ^a	7.79±0.08 ^b	7.06±0.07 ^c	6.86±0.07 ^c
Raw fillets smell	7.70±0.08 ^a	6.74±0.07 ^b	5.64±0.09 ^c	5.29±0.08 ^d
Cooked fillet taste	8.07±0.08 ^a	7.35±0.08 ^b	6.51±0.14 ^c	6.16±0.16 ^d
Cooked fillet smell	8.49±0.06 ^a	8.06±0.06 ^b	7.23±0.07 ^c	6.32±0.07 ^d
Total acceptance of fillets	8.11±0.12 ^a	7.58±0.10 ^b	6.66±0.11 ^c	5.75±0.09 ^d

The values are expressed as the average of three samples.

Table Sup-2

The average sensory scores of rainbow trout in four types of modified atmosphere packaging (including P₁:80% CO₂/10% N₂/10% O₂, P₂:60% CO₂/20% N₂/20% O₂, P₃:60% CO₂/40% N₂/0% O₂, and P₄:40% CO₂/30% N₂/30% O₂)

Packaging	P ₁	P ₂	P ₃	P ₄
Raw fillets appearance	7.58±0.07 ^b	7.29±0.09 ^c	8.00±0.08 ^c	7.19±0.07 ^c
Raw fillets smell	6.67±0.08 ^b	6.19±0.07 ^c	7.52±0.10 ^a	5.43±0.08 ^d
Cooked fillet taste	7.60±0.08 ^a	7.08±0.12 ^b	7.52±0.10 ^a	6.86±0.12 ^c
Cooked fillet smell	8.01±0.12 ^a	7.39±0.09 ^b	7.81±0.10 ^a	6.88±0.10 ^c
Total acceptance of fillets	7.41±0.11 ^a	6.69±0.08 ^b	7.30±0.10 ^a	6.42±0.09 ^c

The values are expressed as the average of three samples.

Table Sup-3

Average sensory scores of rainbow trout at different storage times

Storage time (day)	0	3	6	9	12
Raw fillets appearance	9.00±0.08 ^a	8.49±0.08 ^b	7.67±0.09 ^c	6.78±0.07 ^d	5.61±0.07 ^e
Raw fillets smell	9.00±0.09 ^a	7.66±0.09 ^b	6.13±0.08 ^c	4.95±0.08 ^d	3.95±0.07 ^e
Cooked fillet taste	9.00±0.08 ^a	7.76±0.08 ^b	6.81±0.14 ^c	6.20±0.16 ^d	5.67±0.20 ^e
Cooked fillet smell	9.00±0.11 ^a	8.43±0.10 ^b	7.68±0.12 ^c	6.70±0.09 ^d	5.81±0.09 ^e
Total acceptance of fillets	9.00±0.13 ^a	7.94±0.11 ^b	6.98±0.08 ^c	6.03±0.10 ^d	5.15±0.09 ^e

The values are expressed as the average of three samples