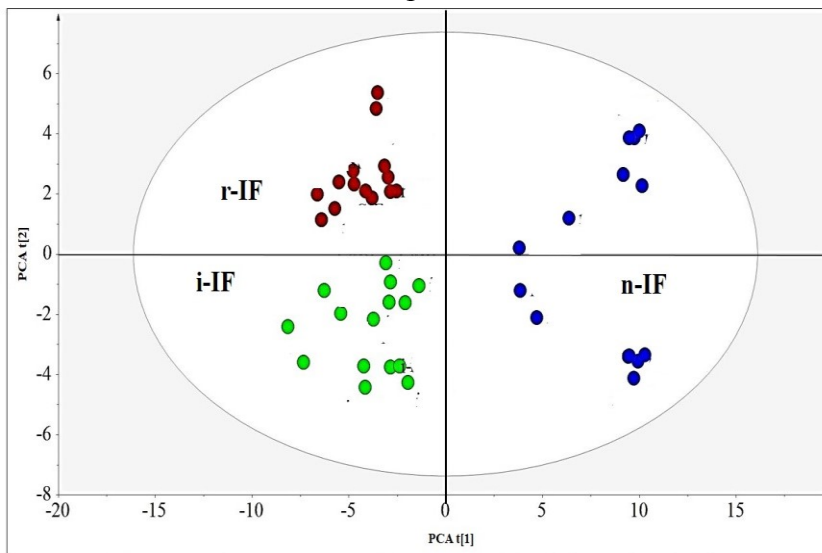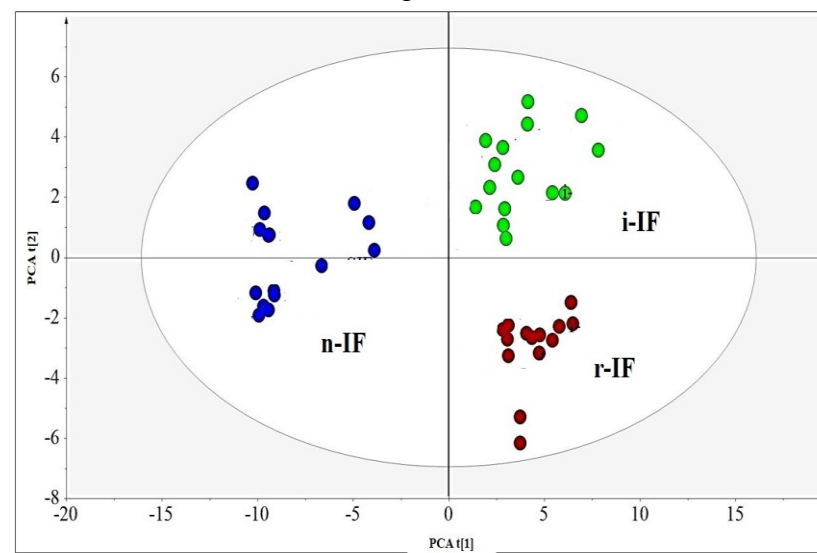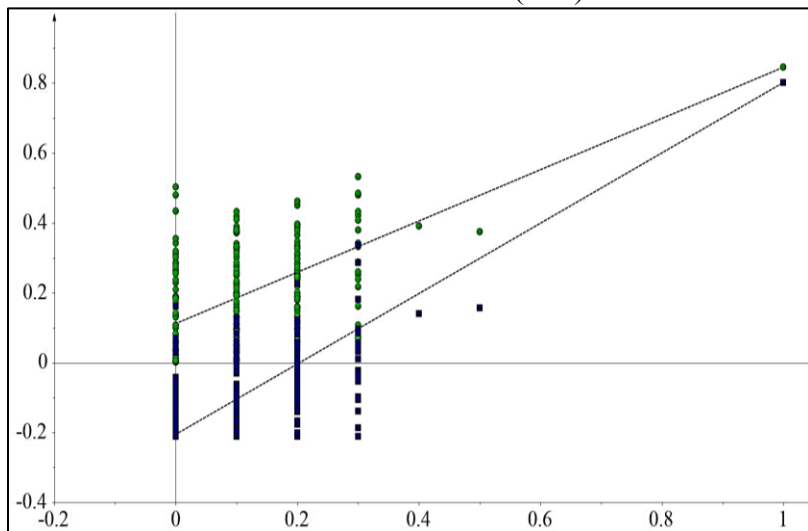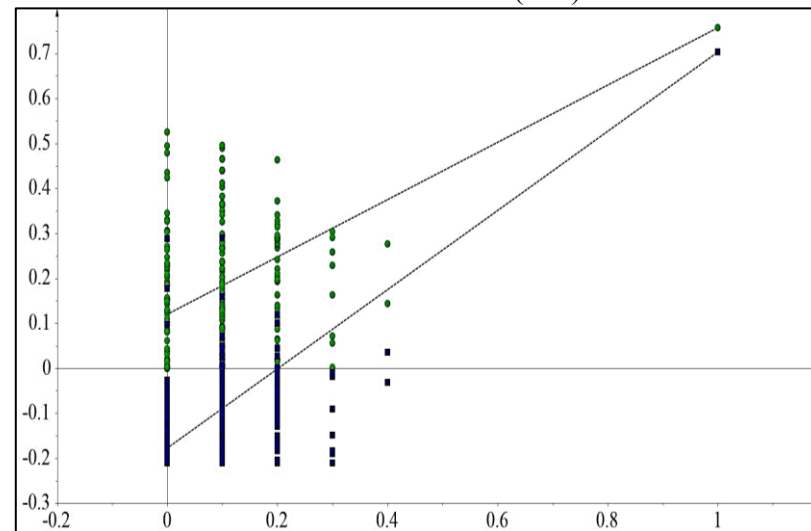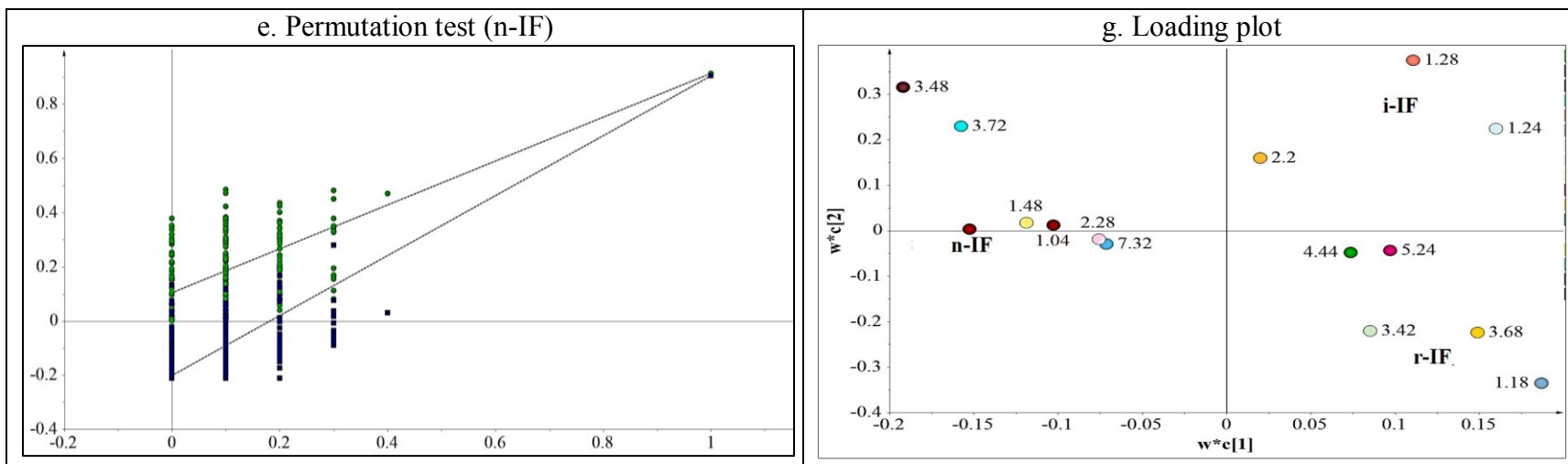a. Scatter plot PCA-X

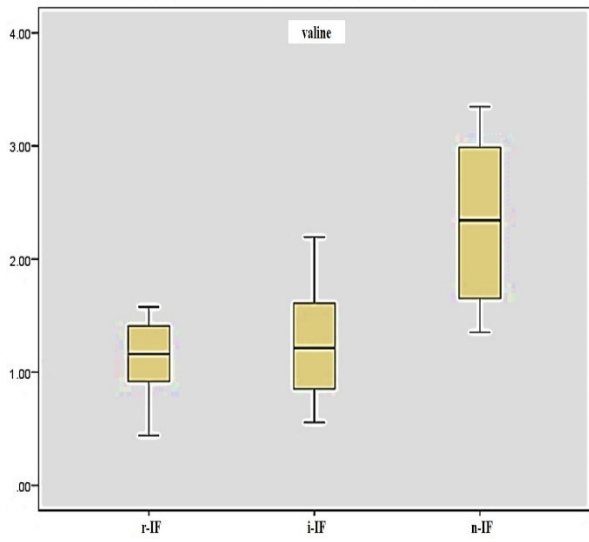b. Scatter plot PLS-DA

c. Permutation test (r-IF)
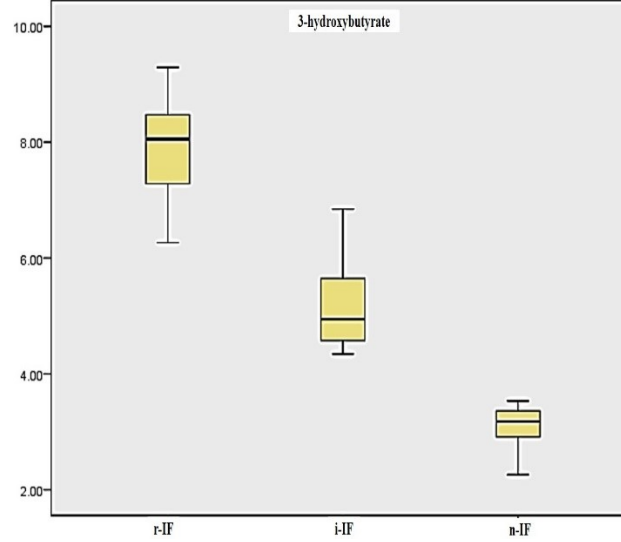
d. Permutation test (i-IF)

Figure S1. The PCA-X scatter plot, PLS-DA scatter plot, permutation test, and loading plot of the metabolomics analysis.
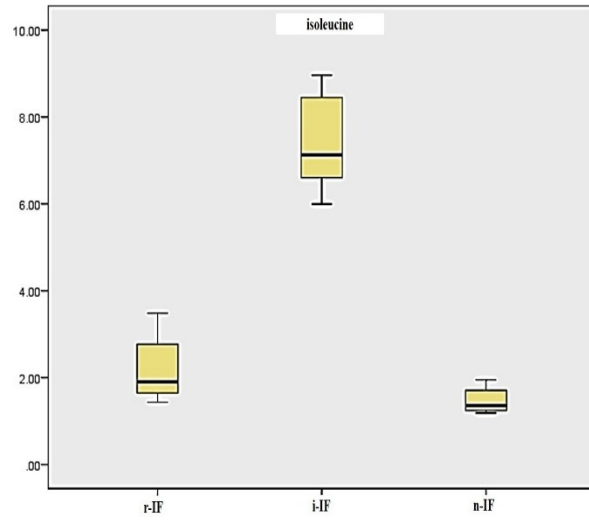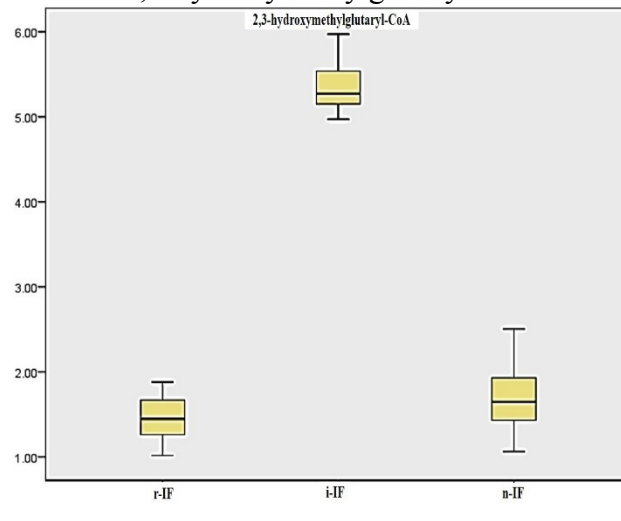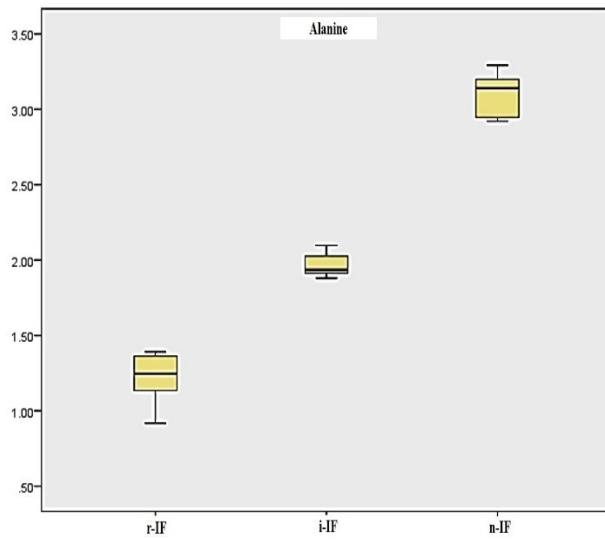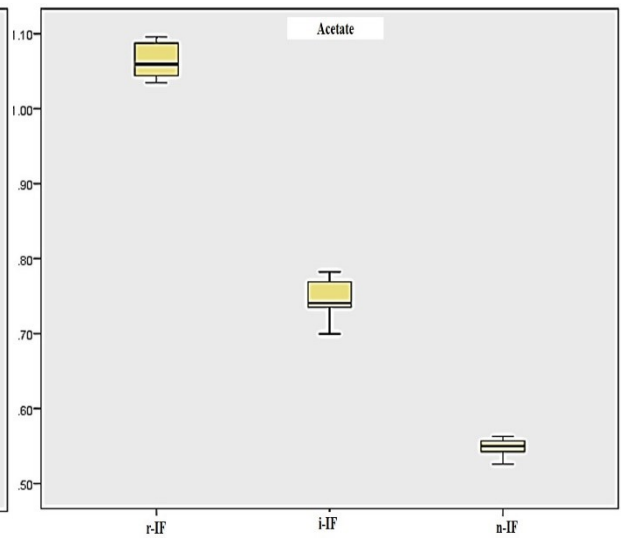
Valine
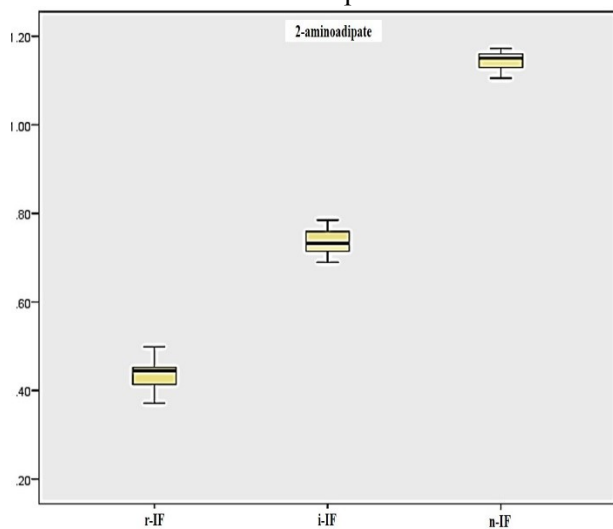
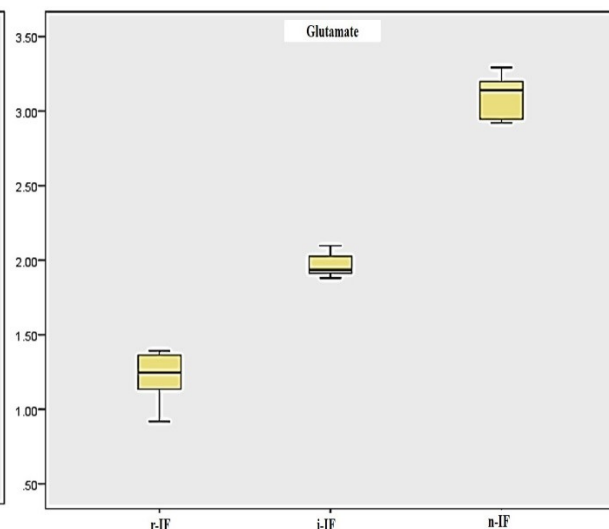

3-hydroxybutyrate

Isoleucine

2,3-hydroxymethylglutaryl-CoA

Alanine
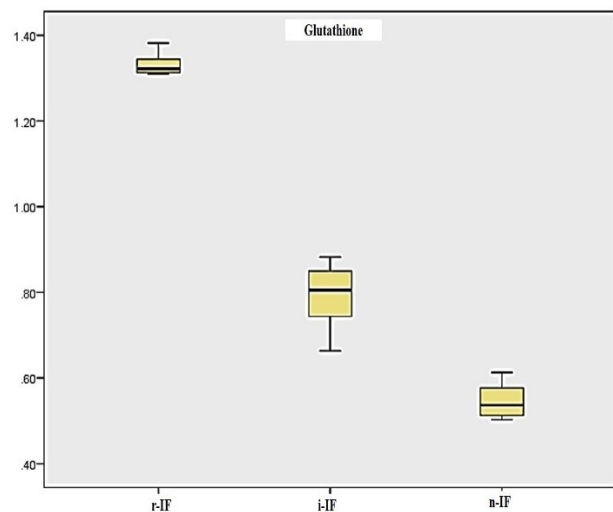

Acetate

2-aminoadipate
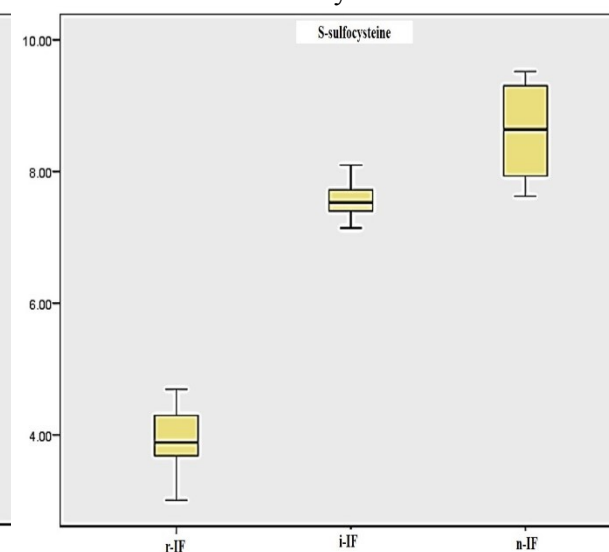
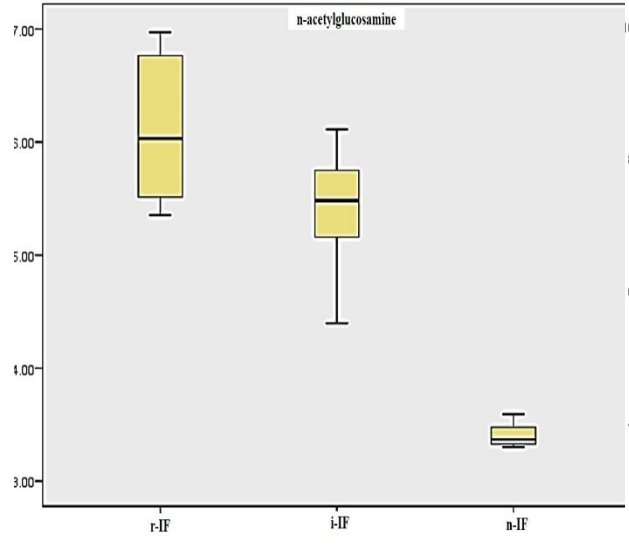

Glutamate
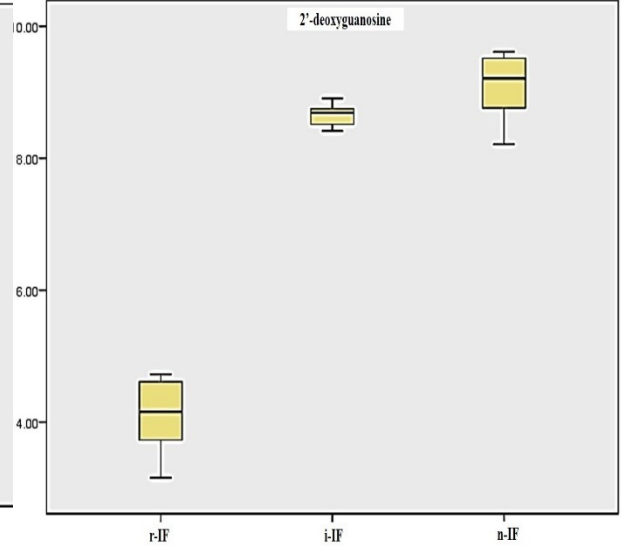

Glutathione

4-hydroxybutyrate
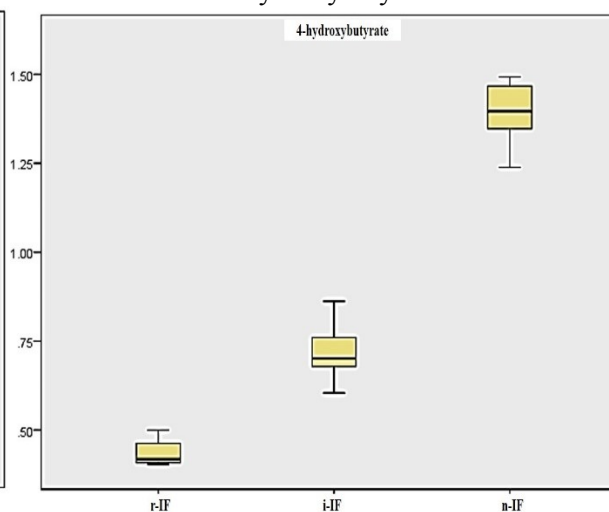
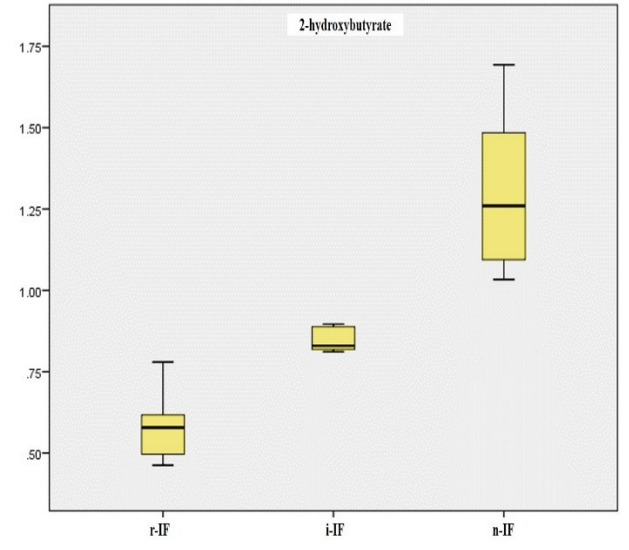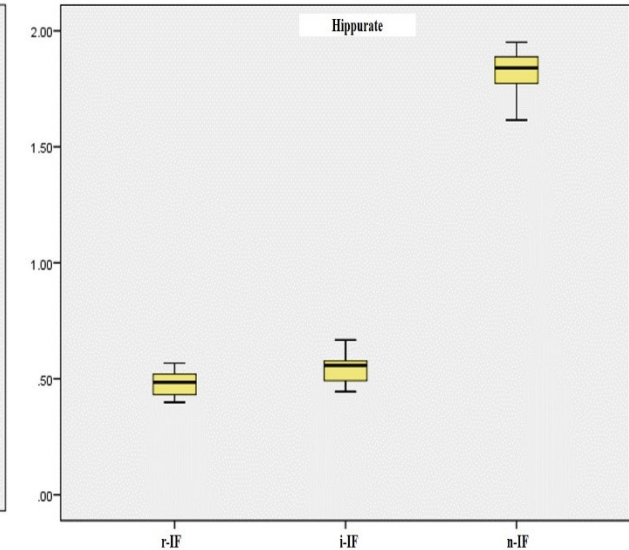## Acetoacetate
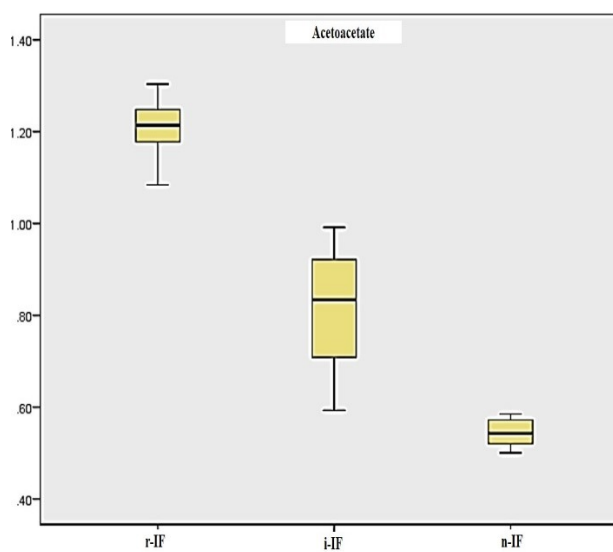
s-sulfocysteine

n-acetylglucosamine

2'-deoxyguanosine

2-hydroxybutyrate

Hippurate

Proline

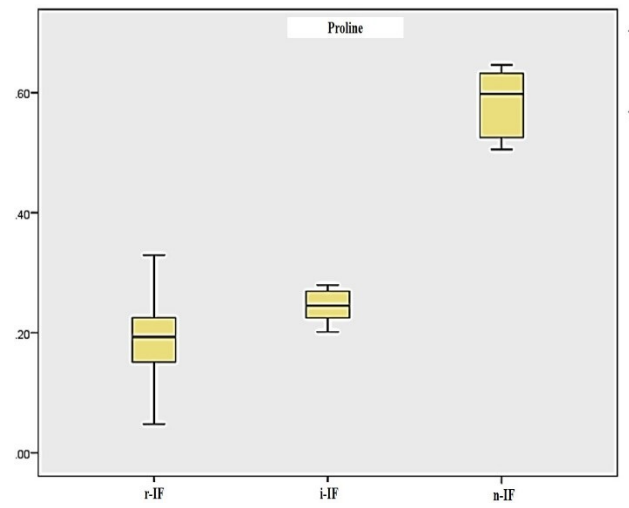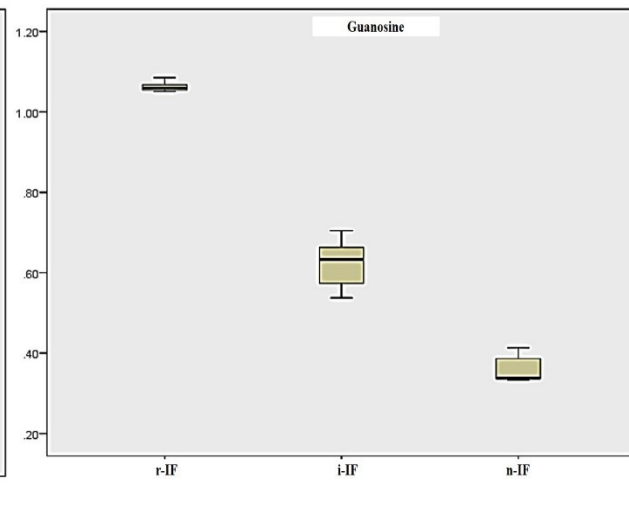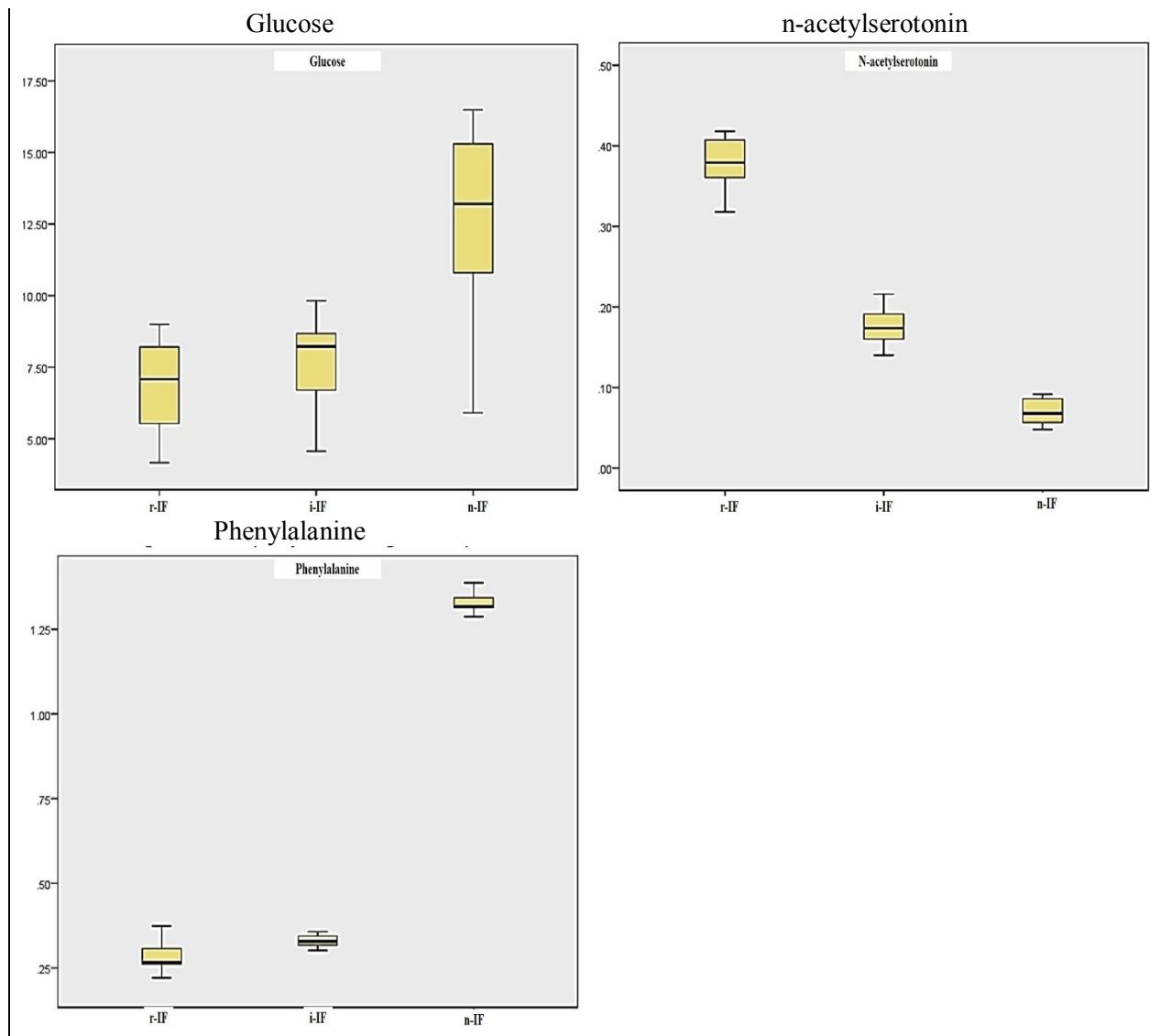## Guanosine

Figure S2. Box-and-whisker plots for each plasma metabolites concentration in relation with fasting status