Tocotrienols peaks. Since PC-1 to 3 has already represent 98% of the discrimination PC-4 includes less important information for the discrimination.

Conclusions

Front-face fluorescence method has been used to obtain EEM characteristic of various Italian monocultivar EVOO. Specific region of EEM, which is, belong to Tocopherols, Tocotrienols, phenolic compounds, oxidation products, and vitamin E. It was found that EEM region of Ex. 250-400 and Em. 280-620 could be used to discriminate each sample type of different cultivar, mixed sample, and virgin olive oil sample. These results demonstrated the potential of front-face fluorescence spectroscopy for discrimination of monocultivar EVOO.

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