“Mountain Product” is a relatively new quality label defined in the European Community regulation reserved for food products produced and processed in mountain areas, aiming to support the economy in disadvantaged areas. However, the “Mountain Product” denomination is still not enough spread and not well known by consumers. Both dairy farmers and consortia want to protect the authenticity of their products from analogues and, at the same time, promote them.

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Assessing, among different samples of Parmigiano Reggiano (PR), the ones with the mountain denomination, through fast and non-destructive spectroscopic techniques

**SAMPLING**

80 PR samples:
- 60 from Mountain areas (40 cal/20 val)
- 20 from Plain areas (15 cal/5 val)

40 different suppliers in 5 Provinces

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**SPECTROSCOPIC TECHNIQUES AND DATA TREATMENT**

- Vis-NIR (benchtop): Foss NIRS DS3
  400-2500 nm
- Vis-NIR (Camera): Camera Specim FX10
  400-1000 nm
- Raman (benchtop): Bruker RAM II
  3600-200 cm$^{-1}$
- Raman (portable): Rigaku Progeny
  2500-150 cm$^{-1}$

**RESULTS**

**PCA**

Discrimination between mountain and plain PR samples

VIS-NIR (benchtop and camera) are important to explain this difference

**SIMCA**

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**CONCLUSIONS**

Through PCA it was possible to observe differences between mountain and plain PR samples, highlighted by Visible and Raman spectroscopies. The fusion of different data blocks allowed to obtain better results in terms of classification performance.

**ACKNOWLEDGEMENTS**

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