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Raman characterisation: FAIRness and relevance

The industrial and academic use of Raman spectroscopy is becoming wider as the number of specialized techniques, devices and Raman active products increases, costs are reduced, and relevance is enhanced by measuring in realistic conditions (pressure, temperature, environment, sample). This has fostered the development of standards and norms for terminology, calibration, performance validation, data analysis, and specific applications, as well as research on harmonisation, automation, and Findable, Accessible, Interoperable, and Reusable (FAIR) repositories.

References

- [1] A. Ntziouni, J. Thomson, I. Xiarchos, X. Li, M.A. Bañares, C. Charitidis, R. Portela, E. Lozano Diz, Appl. Spectrosc. 76 (2022) 747–772. <https://doi.org/10.1177/00037028221090988>.
- [2] C.A. Ortiz-Bravo, S.J.A. Figueroa, R. Portela, C.A. Chagas, M.A. Bañares, F.S. Toniolo, J. Catal. 408 (2022) 423–435. <https://doi.org/10.1016/j.jcat.2021.06.021>
- [3] B. Barton, J. Thomson, E. Lozano Diz, R. Portela, Appl. Spectrosc. 76 (2022) 1021–1041. <https://doi.org/10.1177/00037028221094070>
- [4] Q. Wang, Y. Li, A. Serrano-Lotina, W. Han, R. Portela, R. Wang, M.A. Bañares, K.L. Yeung, J. Am. Chem. Soc. 143 (2021) 196–205. <https://doi.org/10.1021/jacs.0c08640>

Figures



CHARISMA

Harmonized
and realistic

Figure 1: Industrial and academic impact of advances in Raman spectroscopy