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| Sommario/riassunto      | <p>The availability (and the development) of innovative approaches to quantitative analyses and the data processing are often mandatory to deeply characterize a sample and to correctly highlight the analytical target. These objectives are carried out either by simply improving a single aspect of the analytical protocol or by developing a synergy of steps (from extraction to instrumental configuration to chemometric approaches) to obtain the maximum analytical information sought. Examples are innovative extraction protocols (also following the recent guidelines on green analytical chemistry) or new materials for the selective extraction of target compounds, multi-analytes screening methods, and "untargeted" approaches for food applications. In this text, the various articles are attributable to these elements, in particular, we start with a multi-analyte method for the determination of 10 different cannabinoids from Cannabis sativa L. by means of conventional techniques (Mandrioli and coworkers), to then see the application of techniques hyphenated "ultra-fast" by UPLC-MS for the authentication of food products (Xue and coworkers). The work of Song and coworkers on these applications in food products is also interesting, as it highlights how the collection process (and the timing of this passage) can affect the chemical profile and, consequently, the biological activity of Panax ginseng. Mocan and coworkers, applying an innovative extraction technique based on microwaves and applying</p> |

well-known, robust, and easy-to-use instrumentation, have demonstrated how it is possible to discriminate between various species of Galium and how the chemical profiles obtained can support the biological activities observed. Similarly, but with the aim of developing new sample pretreatment procedures, Maggira and collaborators have developed graphene oxide-based materials for the selective extraction of sulfonamides in milk. Shen and coworkers apply a different type of approach, the "untargeted" one, for the geographical characterization of the *Gentian Rigescens* for which they combine chemometric techniques for the processing of raw chemical profile data. Wang and coworkers report a multiclass screening of drugs with high-resolution mass spectrometry through which they manage to obtain a high-scale, fast screening method for pesticides in fishery drugs based on ultrahigh-performance liquid chromatography tandem quadrupole-orbitrap high-resolution mass spectrometer.

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