Table 1. Characteristics of the different methods for analysis of lipid oxidation in foods reviewed in this article.

METHOD	ANALYTE	SAMPLE PREPARATION	AMOUNT OF SAMPLE	SENSITIVITY	SPECIFICITY	COST	LIMITATIONS	MOST RELEVANT REFERENCES
Titration	Peroxides	Medium-Short	1 g	Medium-low	Medium-low	Low	Reagents susceptible to oxidation Absorption by UFA Dryness required	[11]
Uv-Vis[a] spectroscopy	Peroxides, *Conjugated dienes/trienes *MDA, aldehydes	Medium	500 mg	Medium	Medium	Low	High amount of solvents Low concentration range Variability depending on the dye *Insensitive to oleic acid	[15, 31, 36, 20]
Chromatography	Peroxides, MDA, SOPs, volatiles, oligomers	Long	1-100 mg	High-very high (depending on the detector)	High-very high (depending on the detector)	High	Laborious experimental procedure and data processing	[1, 23, 48, 65]
Chemiluminiscence	Peroxides	Short	1-200 mg	High	Medium	Low	Unknown mechanisms Light amplifiers required	[98]
Fluorescence	Aldehydes and volatiles	Very short	10-50 mm^2	Very high	High	Medium	Variability in wavelenghts	[107]
IR[b] spectroscopy	Peroxides, unsaturations, MDA	Very short-none	2-40 mg	Medium-high	High	Medium	Non-aqueous solutions required	[118]
Raman scattering	Peroxides, unsaturations, MDA	Very short-none	10-50 mm^2	Medium-high	High	Low	Some molecules are inactive	[135]
Nuclear magnetic resonance	Peroxides, aldehydes, dienes	Very short-none	10-200 mg	High	Very high	Very high	Complex data interpretation	[141,147]
Electron paramagnetic resonance	Radicals	Very short-none	100-900 mg	High	High	Very high	Complex data interpretation	[150,152]

[a] Ultraviolet-visible
[b] Infrared