more photosensitive entities selected from natural and synthetic food additives, dyes, and pigments; chlorophyll; myoglobin, oxymyoglobin, and other hemeproteins; water and fat soluble essential nutrients, minerals, and vitamins; food components containing fatty acids; oils; proteins; pharmaceutical compounds; personal care and cosmetic formulation compounds and components; household chemicals and their components; and agricultural chemicals and their components. In additional embodiments, the sample comprises one or more photosensitive entities selected from 2, 3, 4, 5, 6, 7, 8, 9, 10, or more of the given classes.

In further embodiments, the measuring comprises a test method selected from the group consisting of HPLC (high performance liquid chromatography), GC (gas chromatography), IR (infrared) spectroscopy, NMR (nuclear magnetic resonance) spectroscopy, UV-VIS (ultra-violet, visible) spectroscopy, colorimetry, MS (mass spectrometry) coupled with other techniques (e.g., GC-MS and LC-MS), fluorescence spectroscopy, ion chromatography, thin layer chromatography (TLC), analytical wet chemistry, and/or electrochemical analysis (e.g., polarography, voltammetry). In particular embodiments, the measurement method is HPLC based which involves removal of a test aliquot from the sample cell. In another embodiment, the measurement method is UV-VIS spectroscopy based when sample analysis is performed while it is contained within the sample cell.

~~In another aspect, t~~The present ~~invention~~ disclosure also relates to a device for quantifying the photoprotective performance of a material, the device comprising: (a) a sample supply and control apparatus comprising: (I) a cell having controlled optical properties, the cell capable of containing a sample comprising one or more photosensitive entities; (II) a sample temperature sensor for monitoring the temperature of the sample within the cell; (III) a temperature control for maintaining the cell at a specified temperature set point that is chosen from the range between about -20°C and about 100°C with a deviation about the set point of less than 1°C; (IV) a dry air supply for delivering low-humidity air to one or more exposed