Supplementary Materials: FoodPro: A Web-Based Tool for Evaluating Covariance and Correlation NMR Spectra Associated with Food Processes

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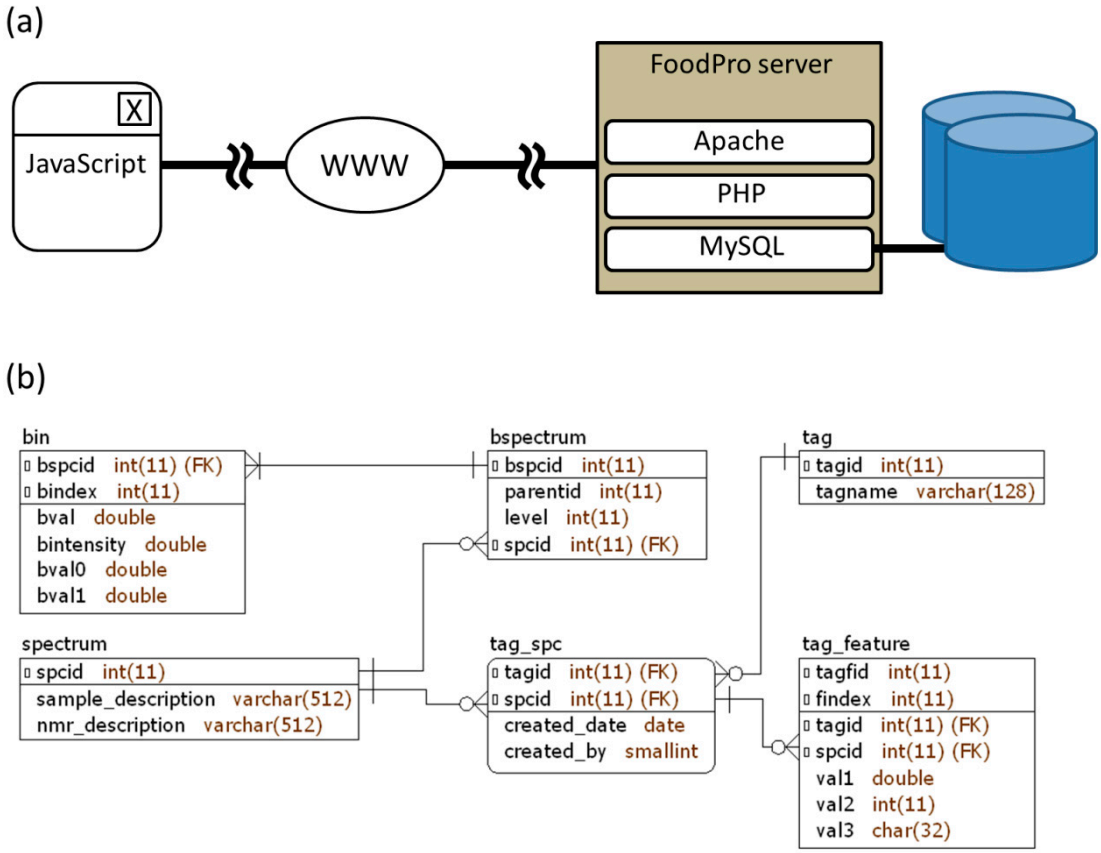

Figure S1. System and entity-relationship diagrams of FoodPro. (**a**) System diagram. FoodPro is accessible with a web browser. It connects a web server, Apache via the Internet; Apache executes PHP programs; PHP accesses MySQL database and retrieve data; PHP generate HTMLs embedding JavaScript codes; Apache returns the HTMLs to the browser; and finally the browser executes JavaScript and display FoodPro contents; (**b**) The entity-relationship diagram of FoodPro implemented in MySQL database. FoodPro has six relational database tables. Those are Spectrum (spectrum), Tag (tag), SpectrumTag (tag_spc), BSpectrum (bspectrum), Bin (bin), and Feature (tag_feature) tables.Primary keys are drawn upper sides in the rectangles. Field names and data types are drawnin black and brown, respectively. Foreign keys are labeled as FK.

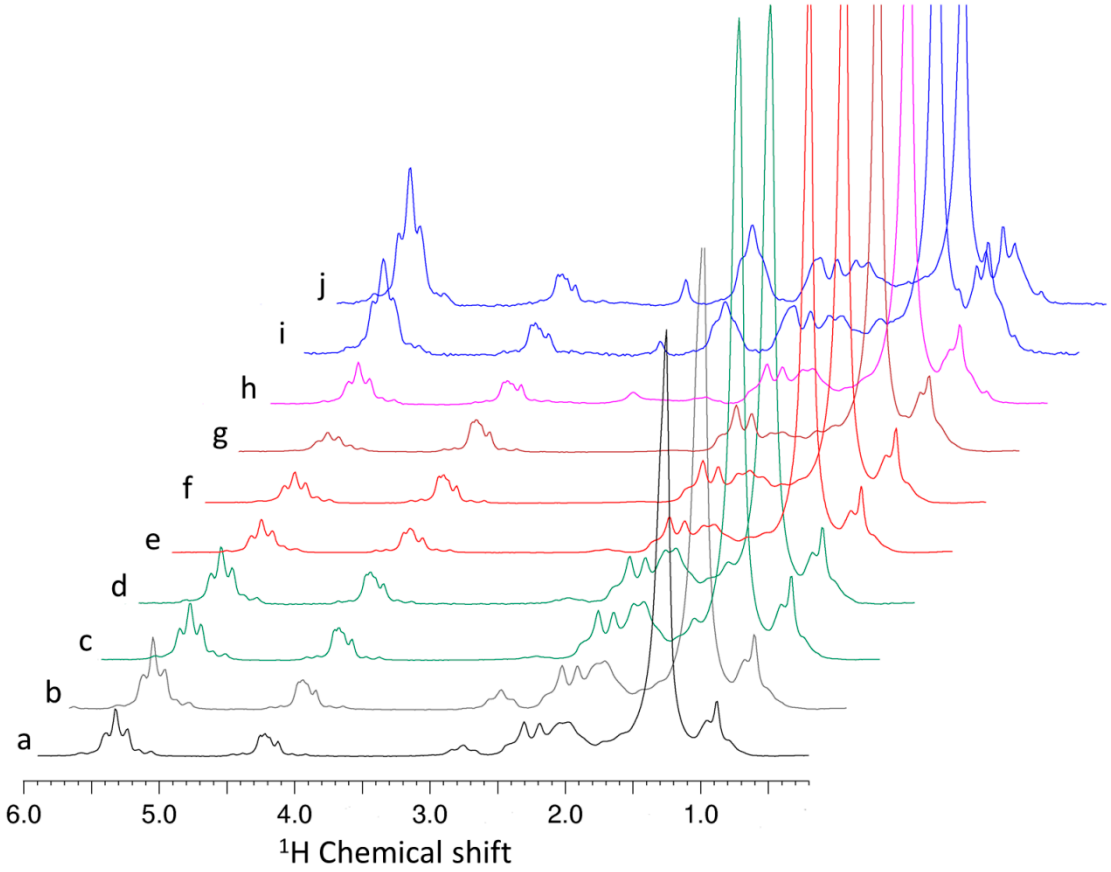

Figure S2. Typical $CDCl_3$ experimental NMR spectra deposited in FoodPro. (**a**) Peanuts; (**b**) sesame; (**c**) avocado; (**d**) extra-virgin olive oil; (**e**) grilled pork; (**f**) beef tallow; (**g**) coconut oil; (**h**) egg; (**i**) salmon roe; (**j**) raw grouper.

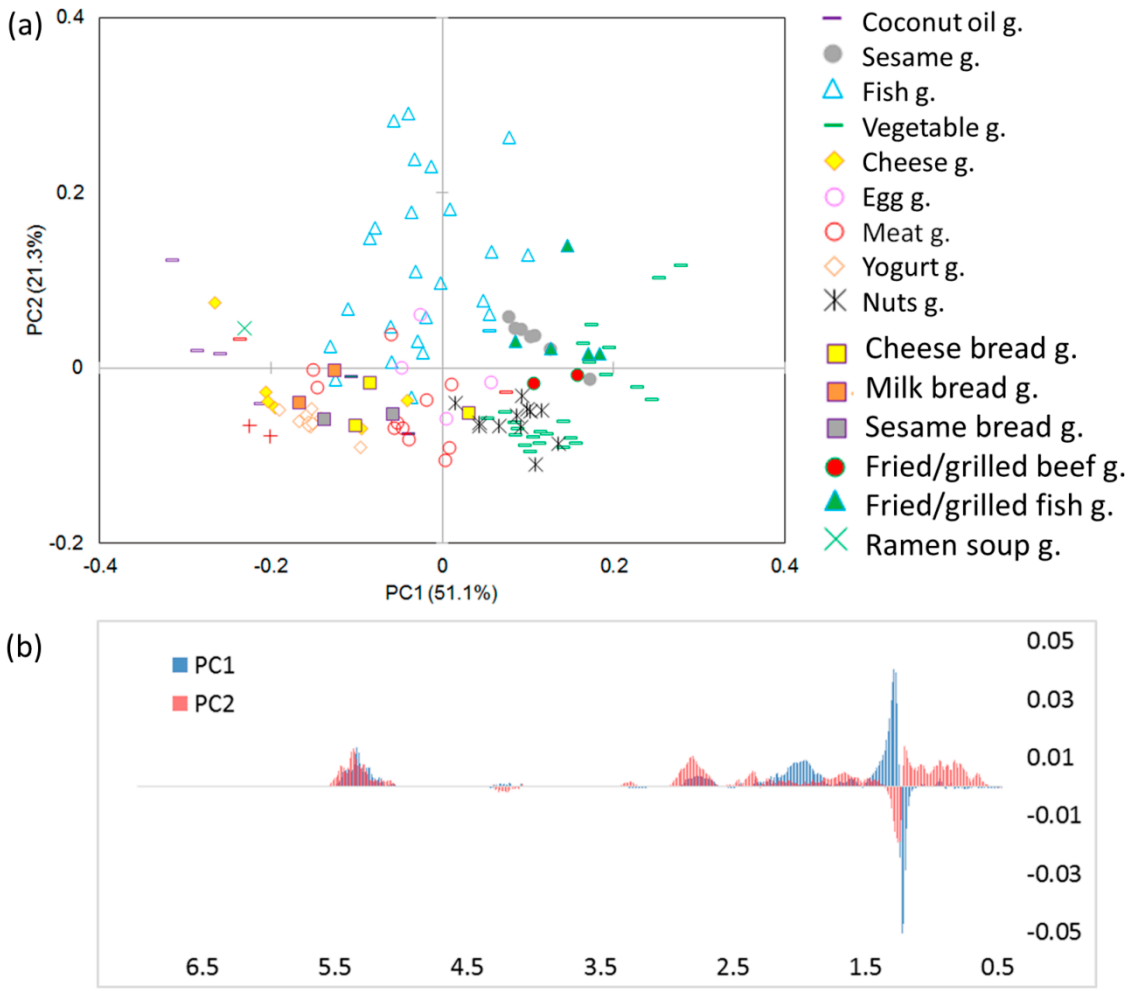

Figure S3. (**a**) PCA score plot for PC1 and PC2with $CDCl_3$ spectra. Note that symbol names represent broad types of processed foods such as fermented or cooked (e.g., Fish g means a fish group.); (**b**) PCA loading plot for PC1 (blue) and PC2 (red).