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(54) **METHOD TO DETECT BONE FRAGMENTS DURING THE PROCESSING OF MEAT OR FISH**

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(57) **ABSTRACT**

Related U.S. Application Data

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Bones, bone fragments, and shell fragments on or near the surface of processed animal flesh may be detected by detecting their fluorescent emissions. The surface of the flesh is illuminated with UV or visible light to elicit fluorescence of animal bones or shells, and the fluorescent light emissions are measured at first and second different wavelengths, which wavelengths are selected to yield a substantial difference between the ratio or subtractive difference for bones or shells and the ratio or subtractive difference for animal flesh. The ratio and/or subtractive difference of the fluorescent light emissions at the first and second wavelengths is calculated, and the presence of bone, bone fragment, or shell fragment is determined therefrom.

(51) **Int. Cl.**
G01J 3/30 (2006.01)

(52) **U.S. Cl.** **356/317; 250/459.1**

(58) **Field of Classification Search** **356/317; 426/231**

See application file for complete search history.

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22 Claims, 9 Drawing Sheets

