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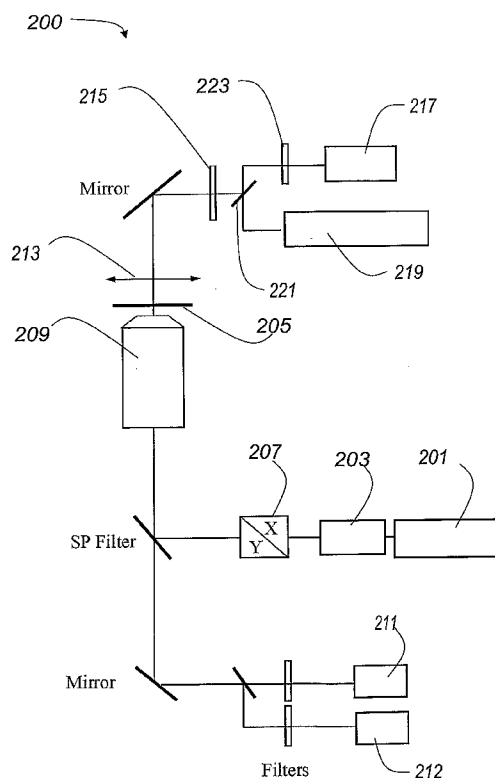
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[Continued on next page]

(54) Title: SHG QUANTIFICATION OF MATRIX-RELATED TISSUE DYNAMIC AND DISEASE



(57) Abstract: A microscope (200) for optical imaging of high optical scattering coefficient biological tissue, comprising an optical excitation source (201) for irradiating a scan area of the sample (205) and generating optical emissions, wherein the sample has a first face facing away from the source and a second face facing the source. A two dimensional element (207) for scanning the light over the sample; a focussing element (209) having a numerical aperture NA_i to focus the light onto the sample; a first optical condenser (213) to collect light from the first face, the collected light comprising source transmitted light and first optical emission generated in the sample, the condenser having a NA_2 larger than NA_i ; an optical filter (215) to block the transmitted source light; an aperture with a size corresponding to the irradiated area of the sample, the aperture at the conjugate image position of the sample generated by the condenser; and an optical detector (217) collecting light from the first face for detecting the first optical emission from the scan area.



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