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# REALTIME COLLECTION OF AUTOFLUORESCENCE OF CORONARY ARTERIES

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We used a fiber optic collection system and an optical multichannel analyzer to record realtime autofluorescence spectra of human coronary arteries excited with a low power argon ion laser. The realtime fluorescence spectra were identical to those we previously obtained with a grating monochromator over much longer scanning times. Fluorescence parameters derived from computer deconvolution of the spectra characterized normal from abnormal arterial tissue. Histologic examination of frozen arterial samples was performed by light microscopy to correlate autofluorescence spectra with the composition of atherosclerotic plaques. In addition, time resolved autofluorescence spectra of samples of human aortas were obtained to determine characteristic lifetimes of fluorescence peaks.

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