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ATRAZINE DETECTION USING REFLECTOMETRIC INTERFERENCE SPECTROSCOPY IN SEVERAL GROUND AND SURFACE WATER SAMPLES IN PALESTINE

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Abstract: *Reflectometric interference spectroscopy (RIFS) was investigated for the detection of atrazine in several ground and surface water samples in Palestine. The basic effect is white light interference at thin transparent films. Chips were modified for covalent modofication of interference layers with atrazine-caproic acid. Binding of proteins at the surface increases the optical thickness of the film which is detected as a change in the reflectance spectra. A calibration curve was constructed and the results of analysis of all samples show the concentration of atrazine did not exceed 0.5ppb.*