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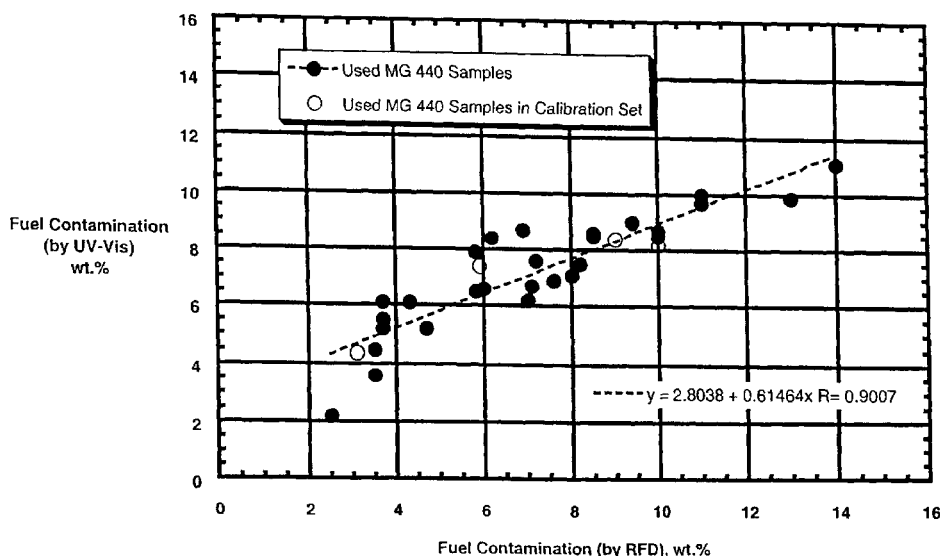
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(54) Title: METHOD FOR DETERMINING RESIDUAL FUEL AND INSOLUBLES CONTAMINATION IN USED MARINE ENGINE LUBRICANTS USING UV-VISIBLE SPECTROSCOPY AND CHEMOMETRICS



(57) Abstract: A method for determining contamination in marine diesel lubricating oils, particularly residual fuel and insolubles, comprising developing a calibration model on the basis of chemometric analysis of UV-visible raw spectral data of reference lubricating oil samples with known properties and concentrations of residual fuel and insolubles, and applying this model to analysis of UV-visible raw spectral data of samples with unknown concentrations of residual fuel and insolubles in order to determine these unknown concentrations, as represented on Figure 1. The actual values of concentrations of residual fuel and insolubles in the reference spectra are obtained by conventional analytical methods.



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