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(54) **COLORIMETRIC ARTIFICIAL NOSE HAVING AN ARRAY OF DYES AND METHOD OF ARTIFICIAL OLFACTION**

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(58) **Field of Search** 436/164, 165, 436/172; 422/55, 68.1, 82.05, 82.06, 82.07, 82.08, 82.09, 82.11, 83, 85

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(57) **ABSTRACT**

The present invention involves an artificial nose having an array comprising at least a first dye and a second dye in combination and having a distinct spectral response to an analyte. In one embodiment, the first and second dyes are from the group comprising porphyrin, chlorin, chlorophyll, phthalocyanine, or salen. In a further embodiment, the first and second dyes are metalloporphyrins. The present invention is particularly useful in detecting metal ligating vapors. Further, the array of the present invention can be connected to a wavelength sensitive light detecting device.

58 Claims, 17 Drawing Sheets

(9 of 17 Drawing Sheet(s) Filed in Color)